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OSWAL – GURUKUL

CBSE CLASS X

36 SAMPLE QUESTION PAPERS

2021 EXAMINATION

ALL SUBJECTS COMBINED

English Language & Literature, Hindi-A, Hindi-B, Mathematics, Science, Social Science

New Sample Question Paper Released by CBSE in Sept 2021 (Fully Solved)

TERM–I

MULTIPLE CHOICE QUESTIONS

ASSERTION & REASONING QUESTIONS

CASE STUDY BASED QUESTIONS

Strictly Based on the Latest Circular no. Acad - 75/2021 & the Rationalized Syllabus Issued by the Central Board of Secondary Education

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TERM–I

BY
PANEL OF AUTHORS

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EDITION : 2021

ISBN : 978-93-91184-72-8

PRINTED AT : Upkar Printing Unit, Agra

Visit https://telegram.me/booksforcbse for more books.

PUBLISHED BY

OSWAL PUBLISHERS

Head Office: 1/12, Sahitya Kunj, M.G. Road, Agra - 282002

Phone : (0562) 2527771-4, +91 7534077222

E-mail : info@oswalpublishers.in

Website : www.oswalpublishers.com

The cover of this book has been designed using resources from Freepik.com

Preface

In accordance with the latest syllabus prescribed by the Central Board of Secondary Education, New Delhi.

Based on the [CBSE/DIR (ACAD)/2021] Circular No. Acad-75/2021, issued by the Board.

We at Oswal-Gurukul believe that preparation in the right direction is the key to avoid stress, and perform well in one's board exams. Therefore, in order to excel in exams we have compiled CBSE 36 Sample Question Papers for TERM I Examination of class. To provide best matter to students, Subject-matter experts and the best teachers from across the country have collaborated to bring together this book.

This book comprises detailed solved Sample Question Paper by CBSE of each subject and sample papers of English, Hindi A & B, Mathematics, Science and Social Science according to the new SQP explained in detail for better understanding of the concepts. We have made every attempt to cover as much ground as possible from the entire syllabus and to keep the language of the book lucid and crisp for easy grasping.

We sincerely hope that this book will prove to be a tool for effective time-management, as well as enable smart-study practices.

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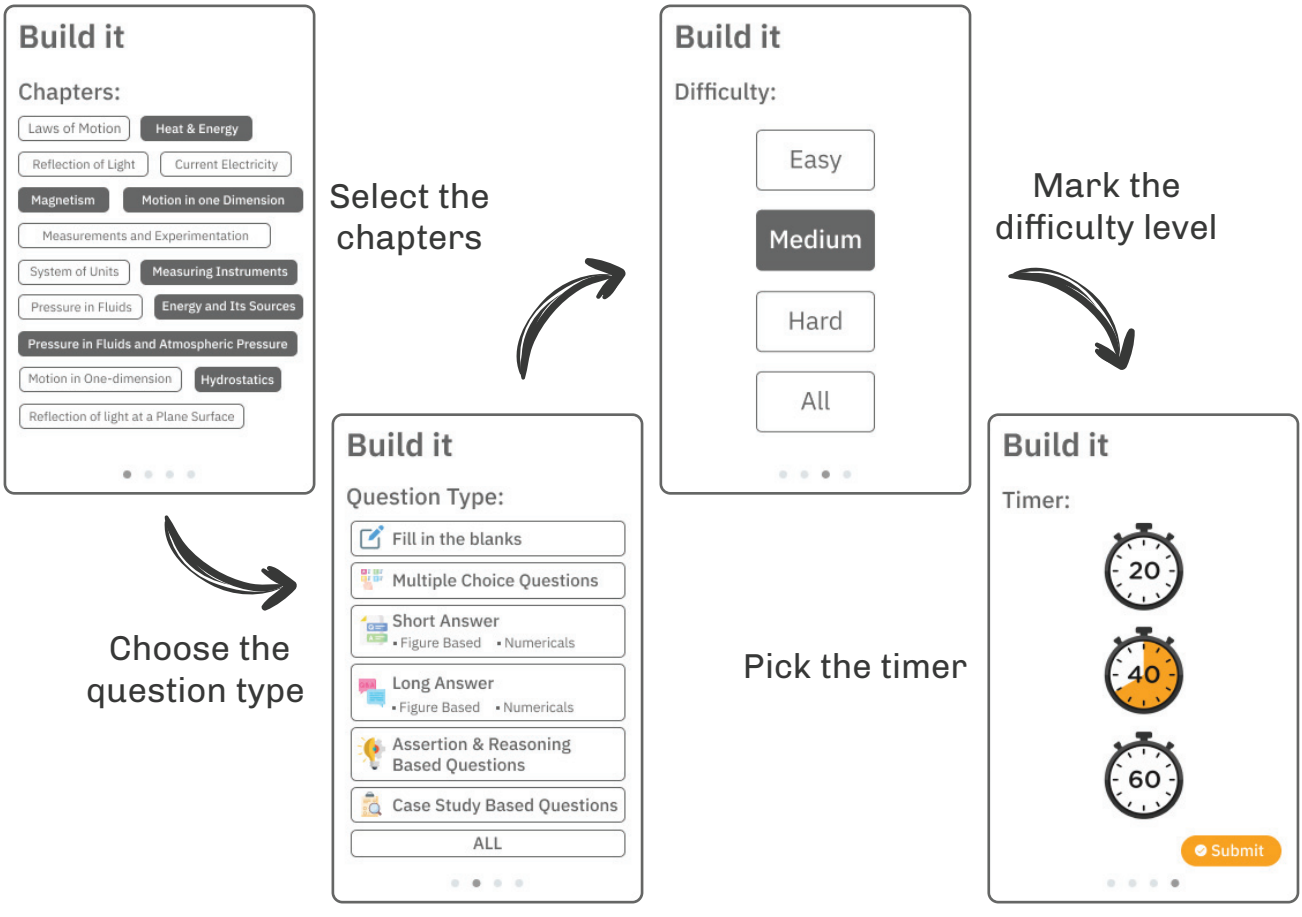

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Step 5 - Skip any question if not sure, proceed to next & submit

Step 6 - You will get your result emailed right away

Contents

English (Language & Literature) 9–88

- Sample Question Paper 11
- Paper 1 23
- Paper 2 34
- Paper 3 45
- Paper 4 56
- Paper 5 68

Answers

- Paper 1 80
- Paper 2 82
- Paper 3 83
- Paper 4 85
- Paper 5 87

Hindi A 89–138

- Sample Question Paper 91
- Paper 1 100
- Paper 2 106
- Paper 3 112
- Paper 4 119
- Paper 5 126

Answers

- Paper 1 133
- Paper 2 134
- Paper 3 135
- Paper 4 136
- Paper 5 137

Hindi B 139–184

- Sample Question Paper 141
- Paper 1 149
- Paper 2 155
- Paper 3 161
- Paper 4 167
- Paper 5 173

Answers

- Paper 1 179
- Paper 2 180
- Paper 3 181
- Paper 4 182
- Paper 5 183

Mathematics 185–300

- Sample Question Paper 187
- Paper 1 206
- Paper 2 211
- Paper 3 217
- Paper 4 223
- Paper 5 229
- Paper 6 234
- Paper 7 239

Answers

- Paper 1 244
- Paper 2 253
- Paper 3 262
- Paper 4 269
- Paper 5 277
- Paper 6 285
- Paper 7 293

Science 301–434

- Sample Question Paper 303
- Paper 1 329
- Paper 2 338
- Paper 3 350
- Paper 4 360
- Paper 5 369
- Paper 6 380
- Paper 7 389

Answers

- Paper 1 399
- Paper 2 403
- Paper 3 408
- Paper 4 413
- Paper 5 418
- Paper 6 424
- Paper 7 429

Social Science 435–524

- Sample Question Paper 437
- Paper 1 448
- Paper 2 457
- Paper 3 466
- Paper 4 476
- Paper 5 485
- Paper 6 494
- Paper 7 503

Answers

- Paper 1 512
- Paper 2 514
- Paper 3 515
- Paper 4 517
- Paper 5 519
- Paper 6 521
- Paper 7 523

केन्द्रीय माध्यमिक शिक्षा बोर्ड
(शिक्षा मंत्रालय, भारत सरकार के अधीन एक स्वायत्त संगठन)
CENTRAL BOARD OF SECONDARY EDUCATION
(An Autonomous Organisation under the Ministry of Education, Govt. of India)

CBSE/DIR (ACAD)/2021

Date: 02-09-2021
Circular No. Acad-75/2021

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Subject: Sample Question Papers of Classes X and XII for Term 1 Exams 2021-22

Dear Principal,

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Dr. Joseph Emmanuel
Director (Academics)

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NOTICE

Important Points for Sample Question Papers

The following points are to be noted while studying/referring to the Sample Papers for Classes X & XII Term 1 for the academic session 2021-22:

1. The Multiple Choice Questions given in the sample papers are not of one mark each for all papers.
2. In the SQPs of Mathematics and all languages except English, each question carries one mark.
3. For other subjects, each question carries equal marks viz.-a-viz. the total marks given i.e. 40 or 35 or 25 or 15 and the weight age of marks per question will be as follows:-

Max. Marks	No. of Questions to be attempted	Marks per Question
40	50	0.80
35	50	0.70
40	45	0.88
35	45	0.77
25	40	0.625
15	25	0.60

4. If total marks scored by a candidate is in fraction, then the same will be rounded off to the next higher numerical number, for example, if the child gets 16.1marks then the total marks will be rounded off to 17 and so on.

English

(Language & Literature)

Sample Question Paper

English Language & Literature [Code (184)]

Term – I

Time : 90 Minutes **Max. Marks : 40**

General Instructions :

1. The Question Paper contains THREE sections.
2. Section A-READING has 18 questions. Attempt a total of 14 questions, as per specific instructions for each question.
3. Section B-WRITING & GRAMMAR has 12 questions. Attempt a total of 10 questions, as per specific instructions for each question.
4. Section C-LITERATURE has 30 questions. Attempt 26 questions, as per specific instructions for each question.
5. All questions carry equal marks.
6. There is no negative marking.

READING

I. Read the passage given below.

(I) Nature is our mother, our first teacher. The greatest lesson that she teaches us is to maintain an equilibrium in life. We learn to maintain composure through our joys, sorrows and fears. In fact, there are a thousand lessons that nature can teach us, provided we look for them.

(II) With time, a sapling grows into a full-grown tree; something so tiny and delicate develops into a strong tree capable of supporting others. No matter how tall it grows, how much it may flourish, or how many animals and birds it may support, its roots are firmly buried from where it once rose. That's a lesson - to keep ourselves grounded, respect and embrace our roots, and give something back to those humble beginnings that nurtured us into who we are.

(III) Then there is the message of peaceful coexistence. 'I am because we are.' Nature provides every creature a chance to exist. However, the existence of one creature or being depends on the existence of the other. The tiger eats the antelope; without the antelope, the tiger wouldn't survive. Likewise, without tigers, the over-abundance of antelopes would cause them to starve to death.

(IV) I wonder if you have noticed that when birds or squirrels see a predator, they give out an alarm call to their fellow creatures, of the lurking danger. They put themselves in danger to save the lives of others. Many animals, like the salmon, usually die after they spawn, but this doesn't stop them. One life extinguished for the betterment of others is a small price to pay.

(V) The snow melts in the warmth of spring to give birth to fresh green leaves. In autumn these leaves age into shades of gold only to be buried in the cold grave of winter. Change is inevitable; the sooner we embrace this, the better it is for us. We must also understand that even in pain there is growth. If you cut a hole in the tree, it will grow around it. No matter what may come in its way, a river will continue to flow. Similarly, no matter what grief may break your heart, nature teaches us that life goes on.

(VI) Keep in mind life isn't about making lists and trying to be one step ahead of others. Life is to live. Take a break-stop being a workaholic, and smell the roses, do whatever makes you feel happy and most of all spend some time with nature to pick up invaluable lessons.

(419 words)

(Source: https://missionself.com/important-lessons-we-can-learn-from-nature)

Based on your understanding of the passage, answer <u>any eight</u> out of the ten questions by choosing the correct option.

Q. 1. According to the author, what, from the following, is the greatest lesson being taught by nature?

A. balanced in our emotions.
B. partial to joys in life.
C. afraid of unhappiness.
D. indifferent to fears.

Ans. A. balanced in our emotions.

Q. 2. Select the option that suitably completes the dialogue with reference to paragraph II.

Jai: I've done well for myself in this school. I'm the best they have. I can get admission anywhere. This is my moment!

Sid: Congratulations! Just remember, we should .....

A. become strong despite our weakness.
B. be kind and supportive towards everyone.
C. respect the origins from where we have grown.
D. nurture ourselves well from the beginning.

Ans. C. respect the origins from where we have grown.

Q. 3. Choose the option that best conveys the message in - *'I am because we are.'*

A. Tigers are dependent on antelope
B. Antelope are dependent on tigers
C. Humans are dependent on animals
D. Everyone is dependent on each other

Ans. D. Everyone is dependent on each other

Q. 4. What qualities do the birds and squirrels display when they warn others of possible danger? Choose one option from the following:

A. Observation skills and alertness.
B. Tendency to get easily frightened.
C. Selfless assistance to help others.
D. Determination to protect themselves.

Ans. C. Selfless assistance to help others.

Q. 5. Select the option with the underlined words that can suitably replace *lurking* (paragraph IV).

A. The policeman pulled up the person who was wandering aimlessly through the city.

B. The thief knew that remaining hidden was the best strategy to avoid being caught.

C. The policeman was caught on camera while pouncing with force, to grab the fleeing culprit.

D. The thief was walking boldly into the house thinking it was devoid of residents.

Ans. B. remaining hidden.

Q. 6. A Portmanteau words like *smog (smoke + fog)*, is a blend of words in which parts of multiple words are combined into a new word. From the options given below, select a Portmanteau word that appears in the para VI.

A. coexistence
B. workaholic
C. full-grown
D. flourish

Ans. B. workaholic (work+ alcoholic)

Q. 7. Select the qualities from paragraph III, that the author wants us to imbibe.

Being-

(1) acceptive
(2) passionate
(3) emotional
(4) resilient
(5) perceptive

A. (2), (4) and (5)
B. (1), (3) and (4)
C. (1), (4) and (5)
D. (3), (4) and (5)

Ans. C. (1), (4) and (5)

Q. 8. Which of the following is shown by the changing of seasons?

A. The beauty of nature.
B. Nature's creativity.
C. All seasons are equal.
D. Nothing lasts forever.

Ans. D. Nothing lasts forever.

Q. 9. What does the writer advise, in paragraph VI?

A. Indulging in competition with others.

B. Making priority lists.

C. Taking life seriously.

D. Having free time for ourselves.

Ans. D. Having free time for ourselves.

Q. 10. Choose the option that lists the quote best expressing the central idea of the passage.

A. Nature: She pardons no mistakes. Her yea is yea, and her nay, nay. -Ralph Waldo Emerson

B. Look deep into nature, and then you will understand everything better. - A. Einstein

C. Nature never deceives us; it is we who deceive ourselves. -Jean Jacques Rousseau

D. All the ugliness of the world can best be forgotten in the beauty of nature! -Mehmet Murat

Ans. B. Look deep into nature, and then you will understand everything better. - A. Einstein

II. Read the passage given below.

(I) Research from the Publishers Association has shown that films based on books take 44% more at the box office revenue in the UK and 53% more worldwide than original screenplays. The report explores what impact a book has when adapted for film and TV.

(II) The report reads: "Published material is the basis of 52% of top UK films in the last 10 years, and accounts for an even higher share of revenue from these leading performers, at 61% of UK box office gross and 65% of worldwide gross." The Hollywood adaptation of "My Cousin Rachel" was shown to have a significant impact on the sales of the Daphne Du Maurier thriller. The sales of the book in 2017 alone accounted for 23% of all sales since 1992.

(III) The research suggests that adapted films tend to perform better, because films can "leverage the popularity" of well-known books through an existing audience. Films adapted from books also tend to have a richer, more fully-developed story to draw on. In terms of TV adaptation, it was revealed that a quarter of dramas were based on literary sources and attracted a 56% larger share of the audience than those based on original scripts. Fourteen of the 35 high end series produced in the UK in the period between January and September 2017 were based on books, compared to seven based on true stories or historical events and five based on pre-existing films or TV stories.

(IV) In the case of the 2016 BBC broadcast of "The Night Manager", research revealed that while the novel was in circulation for over 25 years, 82% of the copies it sold were in 2016 and 2017. Sales of the paperback edition remained strong in 2017 even after the series went off the air.

(V) In conclusion, the report states that "there is a strong two-way relationship between publishing and the wider creative economy, wherein a successful adaptation often has spill-over effects and gives a substantial boost to the sales of the original book."

(338 words)

Source: https://www.thebookseller.com/news/films-based-books-take-more-91m-more-globallyoriginal-scripts-825036

Based on your understanding of the passage, answer <u>any Six</u> out of Eight questions by choosing the correct option.

Q. 11. The purpose of the research by Publishers Association was to study the_____. Choose the correct option.

A. variety in films and TV shows.
B. impact of films on books.
C. choice of books for film-making.
D. connect between books and films.

Ans. D. connect between books and films.

Q. 12. Select the option that is true for the two statements given below.

(1) The revenues generated at the box office have increased.
(2) Majority of the top films in the UK are based on published material.

A. (1) is the result of (2).
B. (1) is the reason for (2).
C. (1) is independent of (2).
D. (1) contradicts (2).

Ans. A. (1) is the result of (2).

Q. 13. Select the option that gives the correct meaning of the following statement.

"The sales of the book in 2017 alone accounted for 23% of all sales since 1992."

A. There were 23% higher sales in 2017 than previous years.
B. A major chunk of sales happened in 2017.
C. The sales were limited to 23% in 2017.
D. There were very few books sold in the previous years.

Ans. B. A major chunk of sales took place in the year 2017.

Q. 14. According to the research, the films based on books have greater success because____.

A. people like to see the characters from the books on screen.
B. the films get the advantage of the fame of the books.
C. it takes less effort for people to watch films than read books.
D. the films get a ready-made script from the books.

Ans. B. the films get advantage of the fame of books.

Q. 15. Select the option listing what the given sentence refers to.

'Films adapted from books also tend to have a richer, more fully-developed story to draw on.'

(1) The plot and the storyline of such films are better.
(2) The characters are likely to be more vivid.
(3) The production of such films is meant for the rich and famous.
(4) The settings and costumes are adapted from the book.
(5) The making of such films require the author to write a sequel.

A. (1), (3) and (4)
B. (2), (3) and (5)
C. (1), (2) and (5)
D. (1), (2) and (4)

Ans. D. (1), (2) and (4)

Q. 16. On what from the following were the maximum TV serials in UK in the year 2017 based?

A. books.
B. historical stories.
C. original true stories.
D. previous films.

Ans. A. books.

Q. 17. This passage lists an example proving that TV dramas based on literary works have_____. Select the correct option.

A. increased the immediate sales of the book
B. increased the sales of the book during the first screening
C. had no immediate impact on the sales of the book
D. had very little impact on the sales of the book

Ans. A. increased the immediate sales of the book.

Q. 18. Choose the correct option to answer the following:

According to paragraph V, *'there is a two-way relationship between books and the screen'*. This is so because both

A. revolve around the same stories.
B. cater to an audience with the same taste.
C. gain from each other's popularity.
D. belong to the creative field.

Ans. C. gain from each other's popularity.

GRAMMAR and WRITING

GRAMMAR

III. Answer <u>any five</u> out of the six questions by selecting the most appropriate option for each.

Q. 19. The hospital board clearly mentioned that you _____ smoke in the hospital as it is a health hazard for all.

A. cannot
B. must not
C. need not
D. might not

Ans. B. must not

Q. 20. There's never _____ petrol left after Rahul uses the car.

A. much
B. little
C. many
D. a little

Ans. A. much

Q. 21. I am taking driving lessons now. Hopefully, I _____my driving test by November.

A. will take
B. would pass
C. will have taken
D. will be taking

Ans. C. will have taken

Q. 22. Which option displays the correct change of the following to reported speech?

Sunitha asked Venkat, "How much is the rent for your flat?"

A. Sunitha asked Venkat how much was his rent for flat.
B. Sunitha asked Venkat how much the rent for his flat was.
C. Sunitha enquires from Venkat that how much rent he pays.
D. Sunitha told Venkat how much the rent for his flat was.

Ans. B. Sunitha asked Venkat how much the rent for his flat was.

Q. 23. Which option displays the correct change of the following to reported speech?

She said, "I told Damanjit to send you an e-mail three days ago."

A. She told that Damanjit had mailed you three days then.
B. She informed me that Damanjit has mailed me three days before.
C. She says that she has told Damanjit to send me an e-mail three days then.
D. She said that she had told Damanjit to send an e-mail to me three days before.

Ans. D. She said that she had told Damanjit to send an e-mail to me three days before.

Q. 24. The dog _____ under the chair before the children arrived.

A. has been hiding
B. was hid
C. have hid
D. had hidden

Ans. D. had hidden

WRITING

IV. Answer <u>any five</u> out of the six questions given, with reference to the context below.

You are Debashree, a resident of Siliguri, Assam. You have to write a letter to the editor of a national daily drawing attention towards the difficulty faced by differently-abled people at tourist places.

Q. 25. Select the option with relevant aspects that Debashree should select, for this letter.

(1) The newspaper's name
(2) Attached proof of the newspaper subscription
(3) Debashree's address
(4) Formal tone
(5) Expected date of the letter's receipt

A. (1) and (5)
B. (2), (3) and (4)
C. (3) and (5)
D. (1), (3) and (4)

Ans. D. (1), (3) and (4)

Q. 26. Select the appropriate subject for this letter.

A. Drawing attention towards differently-abled people
B. The Differently-abled: Neglected or Misunderstood?

C. Tourist places are an inconvenience to differently-abled people

D. Inconvenience Faced by the Differently-abled at Tourist Spots

Ans. D. Inconvenience Faced by the Differently-abled at Tourist Spots

Q. 27. Which option should Debashree select, to elaborate on the difficulties faced by the differently-abled?

A.	• Absence of ramps for wheelchairs • Unclean toilets • High ticket-prices
B.	• Unsuitable visiting timings • Tourist guides untrained in sign language • Lack of braille-script tourist pamphlets
C.	• Absence of ramps for wheelchairs • Tourist guides untrained in sign language • Lack of braille-script tourist pamphlets
D.	• Unclean toilets • High ticket-prices • Unsuitable visiting timings

Ans.

C.	• Absence of ramps for wheelchairs • Tourist guides untrained in sign language • Lack of braille-script tourist pamphlets

Q. 28. Debashree shares some suggestions in her letter, to address the issue.

Select the option that helps her complete these suggestions, appropriately.

In my opinion, the media can play a pivotal role in transforming people's (i). Also, (ii) against negligence to the needs of the differently-abled, at the tourist spots, shall go a long way in bringing about a positive change.

A. (i) beliefs and traditions (ii) composing songs

B. (i) perceptions and attitudes (ii) cautioning the authorities

C. (i) preferences (ii) protesting

D. (i) interactions (ii) keeping minimum interference

Ans. B. (i) perceptions and attitudes (ii) cautioning the authorities

Q. 29. Select the option that correctly justifies the choice of the concluding portion of this letter.

(1) *I expect the authorities to take actions on this issue. Please post my thoughts in your newspaper.*

(2) *I hope my views get published in the columns of your newspaper so that this issue may garner more public support and awareness.*

A. Yes, to Option (1) because of the authoritative tone.

B. No, to Option (1) because of the informal tone.

C. Yes, to Option (2) because of the tone of polite expectation.

D. No, to Option (2) because of the certainty in the tone.

Ans. C. Yes, to Option (2) because of the tone of polite expectation.

Q. 30. Select the option that completes the concluding line appropriately.

I hope that my letter will ……

A. help spread awareness about the issue.

B. lead to action against all authorities responsible, at tourist spots.

C. improve circulation of the national daily.
D. result in positive reviews by the readers.

Ans. A. help spread awareness about the issue.

LITERATURE

This section has sub-sections – V, VI, VII, VIII & IX. There are a total of 30 questions in this section. Attempt any 26 questions from the sub-sections V to IX.

(V) Read the given extract to attempt the questions that follow:

But the decades of oppression and brutality had another unintended effect, and that was that it produced the Oliver Tambos, the Walter Sisulus, the Chief Luthulis, the Yusuf Dadoos, the Bram Fischers, the Robert Sobukwes of our times — men of such extraordinary courage, wisdom and generosity that their like may never be known again. Perhaps it requires such depths of oppression to create such heights of character. My country is rich in the minerals and gems that lie beneath its soil, but I have always known that its greatest wealth is its people, finer and truer than the purest diamonds. It is from these comrades in the struggle that I learned the meaning of courage. Time and again, I have seen men and women risk and give their lives for an idea.

(*Nelson Mandela: Long Walk to Freedom*)

Q. 31. What was the unintended effect of the long oppression? Choose the correct option.
A. It made the people indifferent to injustice.
B. It made the people reject oppression.
C. It influenced a generation to fight against injustice.
D. It made people accept their oppression.

Ans. C. It influenced a generation to fight against injustice.

Q. 32. *Men of such extraordinary courage* refers to the people who……..
A. liberated and abolished the Apartheid system.
B. used their resources to spread awareness.
C. fought for their country's freedom.
D. demonstrated utmost strength to oppose the system.

Ans. D. demonstrated utmost strength to oppose the system.

Q. 33. Nelson Mandela compares …….. to diamonds.
A. his countrymen
B. patriots
C. wise men
D. the oppressed

Ans. A. his countrymen

Q. 34. When Nelson Mandela says, *"I have seen men and women risk and give their lives for an idea."*, he means that they are……
A. stubborn
B. committed
C. intelligent
D. proud

Ans. B. committed

Q. 35. Select the suitable word from the extract to complete the following:
depths: heights : : compassion : …….. .
A. wisdom
B. oppression
C. struggle
D. courage

Ans. B. oppression

VI. Read the given extract to attempt the questions that follow:

Let me put it more clearly, since no one will believe that a thirteen-year-old girl is completely alone in the world. And I'm not. I have loving parents and a sixteen-year-old sister, and there are about thirty people I can call friends. I have a family, loving aunts and a good home. No, on the surface I seem to have everything, except my one true friend. All I think about when I'm with friends is having a good time. I can't bring myself to talk about anything but ordinary everyday things.

(*From the Diary of Anne Frank*)

Q. 36. Why does Anne feel the following?

…no one will believe that a thirteen-year-old girl is completely alone in the world.

(1) People knew she had a family.
(2) People rejected the idea of loneliness.
(3) She had several friends.
(4) She had a cheerful personality.
(5) Her life was comfortable.

Choose the correct option from the following:

A. (1) and (5)
B. (1), (3) and (4)
C. (2) and (3)
D. (2), (4) and (5)

Ans. B. (1), (3) and (4)

Q. 37. Select the most appropriate option for (1) and (2).

(1) *…on the surface I seem to have everything, except my one true friend.*
(2) Anne doesn't truly connect with anyone.

A. (1) is true and (2) is false.
B. (2) is the opposite of (1).
C. (1) furthers the meaning of (2).
D. Both (1) and (2) cannot be inferred from the extract.

Ans. C. (1) furthers the meaning of (2)

Q. 38. From the options given below, identify Anne's tone in the extract.

A. restless
B. dissatisfied
C. scared
D. hurt

Ans. B. dissatisfied

Q. 39. Select the option which displays an example of *'having a good time'*.

A.	He is out for a picnic with his friends and they are laughing and singing together.	B.	He is studying hard for the periodic test the following day to improve his scores.
C.	He is trying to convince his father to purchase the latest video games for him.	D.	He just rescued an injured puppy and is tending to its wounds.

Ans. A. He is out for picnic with his friends and they are laughing and singing together.

Q. 40. What do we get to know about Anne when she says the following?

I can't bring myself to talk about anything but ordinary everyday things

Choose one from the following to answer:

A. She is proud of her ways.
B. She is struggling to strike conversations.

C. She is unsure of her own thoughts.
D. She is unable to have a satisfying conversation.

Ans. D. She is unable to have a satisfying conversation.

VII. Read the given extract to attempt the questions that follow:

Money is external.
He is learning, well behind his desperate eyes,
The epistemology of loss, how to stand up
Knowing what every man must one day know
And most know many days, how to stand up
(*The Ball Poem*)

Q. 41. The poet says money is *external*. What does it mean in this extract?
A. Money helps us purchase materials that make life worth living.
B. Money promotes materialism and hunger for power among youngsters.
C. Money only impacts a person's external environment.
D. Money buys materialistic things and can be earned again, when lost.

Ans. D. Money buys materialistic things and can be earned again, when lost.

Q. 42. What does the boy learn by losing the ball, according to the extract?
(1) Loss is the unavoidable truth of life.
(2) Material objects can be replaced.
(3) Money buys happiness.
(4) Losses in life can be prevented with care.
(5) Life continues despite losses.
A. (1), (2) and (5)
B. (2) and (4)
C. Only (1)
D. (3) and (5)

Ans. A. (1), (2) and (5)

Q. 43. The boy is learning *how to stand up…*
This means that he is learning to be …….. in the face of difficulties.
A. patient
B. resilient
C. defensive
D. judgemental

Ans. B. resilient

Q. 44. Which option lists who is speaking these lines?
A. An observer
B. The boy's parent.
C. The ball salesman
D. A friend

Ans. A. An Observer

Q. 45. According to the poet, from whom do we mostly learn about loss?
A. Elders
B. Experiences
C. Books
D. Teachers

Ans. B. experiences.

VIII. Read the given extract to attempt the questions that follow:

I followed casually.
"Hello again," he said.
I gave him my most appealing smile. "I want to work for you," I said.
"But I can't pay you."

I thought that over for a minute. Perhaps I had misjudged my man. I asked, "Can you feed me?"

"Can you cook?"

"I can cook," I lied again.

"If you can cook, then maybe I can feed you."

He took me to his room over the Jumna Sweet Shop and told me I could sleep on the balcony. But the meal I cooked that night must have been terrible because Anil gave it to a stray dog and told me to be off. But I just hung around, smiling in my most appealing way, and he couldn't help laughing.

(The Thief's Story)

Q. 46. Even though Hari Singh followed Anil *casually*, it was a/an ……

A. careless action
B. staged move
C. unusual decision
D. bold step

Ans. B. staged move

Q. 47. From the following options, identify Hari Singh's intention behind the *appealing smile.*

A. Deceit
B. Harm
C. Hatred
D. Jealousy

Ans. A. Deceit

Q. 48. Select the option listing Anil's characteristics, as revealed in the extract.

(1) unassuming
(2) kind
(3) determined
(4) naive
(5) humourous

A. (2) and (3)
B. Only (5)
C. (1), (2) and (4)
D. Only (2)

Ans. C. (1), (2) and (4)

Q. 49. Select the most appropriate option based on (1) and (2).

(1) Anil gave his meal to a stray dog.
(2) Hari Singh did not know how to cook.

A. (2) is true and (1) is false
B. (2) is the result for (1)
C. (2) is the cause for (1)
D. (2) is false and (1) is true.

Ans. C. (2) is the cause for (1)

Q. 50. The phrase *hung around* suggests that Hari Singh continued to……

A. smile
B. cook
C. appeal
D. linger

Ans. D. linger

IX. Attempt the following.

Q. 51. Lencho is _____when he says, *"that's what they say: no one dies of hunger."*

A. doubtful
B. stressed
C. confused
D. dismissive

Ans. D. dismissive

Q. 52. Which option correctly replaces the underlined phrase in the give line from *Fire and Ice*?

I <u>*hold with*</u> those who favour fire.

A. am as experienced as
B. strongly disagree with
C. have the same opinion as
D. habitually avoid

Ans. C. have the same opinion as

Q. 53. The purpose of the treatment, given to the young seagull by his parents, was to……..

A. teach him a lesson about the importance of food.

B. inculcate obedience towards them.

C. let him overcome his fear.

D. improve his relationship with his siblings.

Ans. C. let him overcome his fear.

Q. 54. Peggy often gave a nudge to one of her friends when she spoke to Wanda in the school yard. This meant that she wanted her friend to _____.

A. stop talking to Wanda and move on

B. observe and partake in the joke on Wanda

C. ignore the complete situation with Wanda

D. interrupt any reply that came from Wanda

Ans. B. observe and partake in the joke on Wanda

Q. 55. In the poem *Dust of Snow*, which negative symbols have been used to create a positive effect?

A. hemlock tree; crow

B. crow; snow

C. snow; hemlock tree

D. crow; dust

Ans. A. hemlock tree; crow

Q. 56. Mandela refers to liberty as "newborn" because it

A. was dependent on others for growth and guidance.

B. had recently been attained with lots of struggle.

C. made people experience infant-like excitement.

D. arrived unexpectedly for everyone.

Ans. B. had recently been attained with lots of struggle.

Q. 57. In the poem *A Tiger in the Zoo*, what does the tiger's 'quiet rage', indicate?
It indicates that the tiger's anger is:

A. forgotten

B. provoked

C. suppressed

D. opposed

Ans. C. suppressed.

Q. 58. Identify the option that aptly describes Griffin:

A. greedy, yet kind

B. proud and honourable

C. considerate and selfless

D. brilliant, but lawless

Ans. D. brilliant, but lawless

Q. 59. Anil's carelessness made stealing from him _____for Hari Singh.

A. uninteresting

B. difficult

C. systematic

D. predictable

Ans. A. uninteresting

Q. 60. What does the exclamation, "This is a triumph of surgery!", by Mrs. Pumphrey, mean?

A. The surgery was successful.

B. The mistress could take back her pet.

C. The doctor was a great veterinarian.

D. The planned venture was fruitful.

Ans. D. the planned venture was fruitful.

❑❑

Sample Paper 1

English Language & Literature

READING

I. Read the passage given below.

I. Social media sites serve as a platform to connect with our friends and relatives. We share our happiness as well as sad moments on social media platforms to let those on our friend list know how we are feeling and what we are doing in life. People 'like' our status, updates and photographs and 'comment' on them to tell us how they feel about it all. This is a great way to socialise in this busy world. It makes us feel that everyone we love and want to be in touch with, is just a click away. However, social media becomes a problem when we get addicted to it.

II. Many people living in different parts of the world are suffering from social media addiction and are bearing their consequences too. Social media sites such as Facebook and Twitter may help us connect with our distant relatives and long-lost friends but social media addiction is distancing us from our immediate family and close friends. People addicted to social media are hooked to these platforms for hours. They do not care if their loved ones are sitting with them or trying to make a conversation. All they care about is who updated what on social media and how many people liked or commented on their posts.

III. Social media addicts frequently check updates and notifications on social media platforms. This can be as frequent as twenty-thirty times in an hour. Viewing a new notification, especially one involving their posts gives them a high. Lack of it, on the other hand, can make them feel sad and depressed.

IV. All that the social media addicts care about is to maintain an attractive social media profile. They are mostly seen clicking pictures during social events, family gatherings and even during getaways with friends. They hardly enjoy the moment or talk to the people around them. They are only focused on collecting pictures that can be uploaded on their social media accounts or busy checking and commenting on the status updates of those on their friend list.

V. They post updates stating they are enjoying with their family or having fun with their friends while in reality, they do not even interact properly with anyone around. This is the grave reality of social media addicts. Social media addiction is becoming a big problem. It is ironic how a platform created to help people socialise is actually cutting them off from society.

Based on your understanding of the passage answer <u>any eight</u> out of the ten questions by choosing the correct option.

Q. 1 What is the negative effect of social media?

A. connecting with friends
B. ignoring family
C. ignoring friends
D. making friends

Q. 2 Select the option that suitably completes the dialogue with reference to paragraph I.

Nisha: We are so lucky that we live in times where so many social media platforms have emerged with the advent of internet.

Ajay: And also they are an amazing way for ……..

A. connecting face to face.

B. blocking those with whom we do not agree.

C. making arguments and debating.

D. making connections and sharing moments.

Q. 3 Choose the option that best conveys the message in – *'just a click away'*.

A. available at fingertips.

B. every action yields a reaction.

C. a bit fidgety.

D. dependent on the mouse and keyboard.

Q. 4 According to the context of the passage, what does a social media addict care about?

A. family

B. children

C. parents

D. update about friends

Q. 5 Select the option with the underlined words that can suitably replace *high* (paragraph III).

A. The turret of that castle is situated on <u>top</u> of its wall.

B. The peak altitude of mountains is <u>way above</u> the sea level.

C. certain activities like exercising and listening to music are known to give a <u>dopamine boost</u>.

D. All narcissists have an <u>inflated</u> sense of self-importance.

Q. 6 Alliteration is a literary device that reflects repetition in two or more nearby words of initial consonant sounds (example- rocky road).

From the options given below, select an alliteration that appears in the para II.

A. immediate family

B. long-lost

C. social media

D. Facebook and Twitter

Q. 7 Choose the option that CORRECTLY states the two aspects of 'social media', as used in the passage.

(1) connects with friends

(2) appreciates friends

(3) share happiness and sad moments

(4) share address

(5) share property

A. (1) and (3)

B. (2) and (3)

C. (3) and (4)

D. (4) and (5)

Q. 8 Which of the following is conveyed by maintaining an attractive social media profile?

A. Seeking online validation.

B. Being at peace with reality.

C. Showing signs of depression.

D. Being unaware with reality.

Q. 9 What does the writer express in paragraph IV?

A. Family gatherings require clicking pictures.

B. People are living in the moment with social media.

C. Lack of social media will make events more fun.

D. Social media addiction is making people unsocial.

Q. 10 Choose the option that lists the quote best expressing the central idea of the passage.

(1) "Don't use social media to impress people; use it to impact people." —*Dave Willis*

(2) "It takes discipline to not let social media steal your time." —*Alexis Ohanian*

(3) "The more social media we have, the more we think we are connecting, yet are really disconnecting from each other." –*JR*

(4) "It's not who you know in social media. It's how well you maintain and strengthen your relationships." —*Stuart Davidson*

A. option (1) B. option (2)

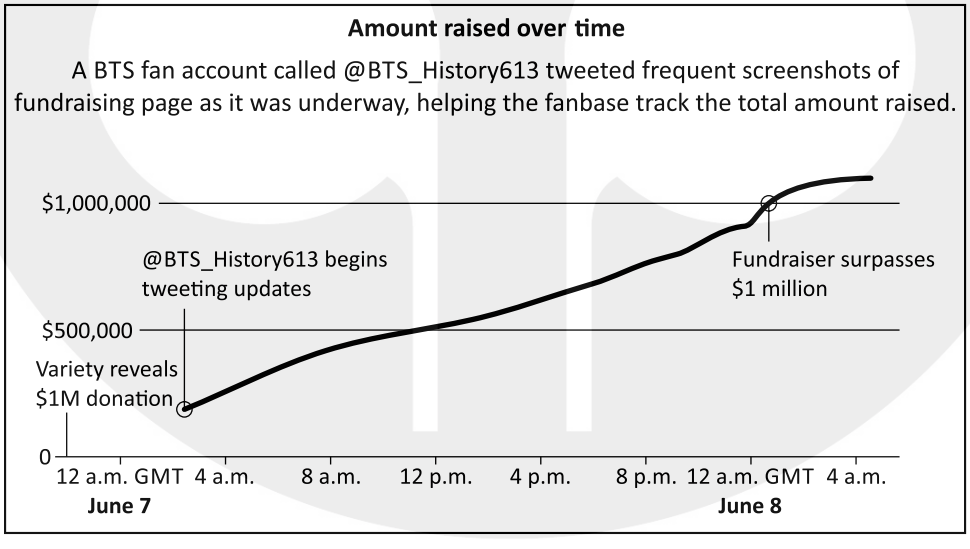
C. option (3) D. option (4)

II. Read the passage given below.

I. The protests against police brutality and systemic racism have seen several American and international celebrities donate to U.S. nonprofits and organizations dedicated to racial justice. On June 5, racial justice organisation Black Lives Matter confirmed it had received a $1 million donation from South Korean pop group BTS and its record label, Big Hit Entertainment.

II. Shortly after the news became public, BTS fans organized an online campaign to match the donation under the hashtag #MatchAMillion and reached their goal in just 25 hours.

III. K-pop fans are known for their prolific social media activity and have used their influence to support social justice issues. On Instagram and Twitter, they have taken over white supremacist hashtags with fancams – short videos of their favourite pop idols performing. When the Dallas Police Department asked the public to submit videos of "illegal activity" during protests to its iWatch Dallas app, fans encouraged each other to submit fancams instead, and the app went temporarily offline.



IV. These fanbases are sometimes generalized as young and obsessive individuals who occasionally take collective action. But they have a history of raising money for charity and breaking social media records, and BTS fans in particular are enabled by the semi-structured organization of the fanbase and the diversity within their ranks.

V. BTS is a seven-member K-pop group whose music draws from several genres, including hip-hop, pop and R&B. Since their 2013 debut, they've become known for their meticulous choreography, elaborate music videos with connected storylines and youth-focused lyrics that touch on themes such as self-confidence, mental health and societal norms.

(Source: Reuters.com)

Based on your understanding of the passage answer <u>any six</u> out of the eight questions by choosing the correct option.

Q. 11 The purpose of organising an online fundraiser by BTS fans was to raise awareness against ..... . Choose the correct option.

A. America's inability to fight the pandemic.

B. police reform laws.

C. capitalism ruining pop culture.

D. systemic racial injustice.

Q. 12 Choose the option that lists the CORRECT answers for the following:

(1) Shan has a prolific social media presence and uses his influence to support social justice issues. What category of people does he come in according to the passage?

(2) Reema is part of a pop group whose music draws from several genres, including hip-hop, pop and R&B and touches on themes such as self-confidence, mental health and societal norms. Name the group based on the passage.

A. (1) is a fan cam and (2) is fan base group

B. (1) is K-pop fan and (2) is BTS

C. (1) is BTS and (2) is fan cam

D. (1) is K-pop fan and (2) is fan base group

Q. 13 Select the option that gives the correct meaning of the following statement.

"On Instagram and Twitter, they have taken over white supremacist hashtags with fancams – short videos of their favourite pop idols performing."

A. Fans are posting videos of their idols in such numbers that it has become difficult to identify racism on Instagram and Twitter.

B. Fans are posting videos of their idols in such numbers that it has replaced any racist hashtags from trending pages.

C. Fans avoid getting involved in politics of white supremacy.

D. Fan videos are worth as much attention as any white supremacist hashtag on Instagram and Twitter.

Q. 14 Why have American celebrities donated to U.S. nonprofits and organizations dedicated to racial justice?

A. Due to systemic racism

B. For George Floyd's death

C. For the injustices in general

D. For coronavirus pandemic

Q. 15 Select the option listing what the given sentence refers to.

'These fanbases are sometimes generalized as young and obsessive individuals who occasionally take collective action.'

A. Fanbases only take actions occasionally when it suits them.

B. Fanbases are generally formed by young and obsessive individuals.

C. Fanbases argue online behind a screen but they cannot take any collective action.

D. Fanbases are ridiculed as being naïve even though they can make huge impact on political scenario.

Q. 16 What did the fans encourage each other to submit fancams in place of?

A. "any activity" during protests.

B. "illegal activity" during police action.

C. "illegal activity" during protests.

D. the protests.

Q. 17 The racial justice organization Black Lives Matter confirmed that ..... .

A. it had received a $1 million donation from BTS Army.

B. it had received a $1 million donation from a celebrity.

C. it had received a $1 million donation from South Korean pop group BTS.

D. it had received a $3 million donation from South Korean pop group BTS.

Q. 18 Choose the correct option to answer the following:

According to paragraph IV, 'BTS fans in particular are enabled by the semi-structured organization of the fanbase and the diversity within their ranks.'

This is so because

A. BTS fans can be chaotic and require some system to tackle it.

B. organised fan groups can divide work efficiently for a collective effort.

C. productivity of the group is independent to the diversity within ranks.

D. fanbase organization is exclusive to BTS fans in particular.

GRAMMAR and WRITING

GRAMMAR

III. Answer <u>any five</u> out of six questions by selecting the most appropriate option for each.

Q. 19 "..... I talk to you a little later Mrs. Banerjeee ?"

A. Must B. Will

C. Can D. Would

Q. 20 I am not updated with the ..... version of the story.

A. late B. later

C. latest D. latter

Q. 21 The child is very naughty; he ..... out into the park.

A. runs B. is always running

C. will run D. will have been running

Q. 22 Which option displays the correct change of the following to reported speech?

The teacher told the students, "Stop banging the desk".

A. The teacher asked the students to stop banging the desk.

B. The teacher ordered the students to stop banging the desk.

C. The teacher said to the students that she should stop banging the desk.

D. The teacher inquired whether students could stop banging the desk.

Q. 23 Which option displays the correct change of the following to reported speech?

Peter said to George, "Please wait here till they call you inside".

A. Peter requested George to wait there till they called him inside.

B. Peter asked George to wait here till they called him inside.

C. Peter asked George to wait there till they call him outside.

D. Peter said to George that he must wait here till they call him inside.

Q. 24 The minister cannot come. He ..... ill since a week.

A. is B. was

C. has been D. have been

WRITING

IV. Answer <u>any five</u> out of six questions given, with reference to the context below.

You are Lavanya, a resident of Dadar West, Mumbai. Write a letter to the editor of an English daily, making a plea to the common people to conserve water and practice rainwater harvesting during the upcoming monsoon season.

Q. 25 Which of the following aspects should Lavanya include in her letter?

(1) The Editor's address

(2) Lavanya's address

(3) Formal tone

(4) Newspaper's name

A. (1) and (2)
B. (2), (3) and (4)
C. (1), (2), (3) and (4)
D. (3) and (4)

Q. 26 Select the appropriate subject for the letter.

A. Please conserve water

B. Evoking awareness towards water conservation and rainwater harvesting

C. Tips to preserve water this monsoon

D. Request to publish

Q. 27 Which of the following can Lavanya skip in her letter?

A.	• Water scarcity in the area every year. • Benefits of water conservation. • Ways to carry out rainwater harvesting.
B.	• Sanitation problems. • Mosquito breeding and spread of diseases.
C.	• Subsidy from government on rainwater harvesting. • Groundwater benefits and uses.
D.	• Examples of the practice elsewhere in the country. • Benefits of community participation.

Q. 28 Lavanya draws the attention of the public through some suggestions. Help her complete them by choosing the appropriate options.

Rainwater harvesting is a technique through which one cannot only conserve water but also recharge the groundwater levels. Also, (i) ..... a pit underground will help to use this water in times of need. A surplus amount of groundwater will help (ii) ..... including plants and animals.

A. (i) creating (ii) the entire community

B. (i) digging (ii) the world

C. (i) with the help of (ii) an ecosystem

D. (i) I feel (ii) a very small area

Q. 29 Select the option that correctly justifies her choice of concluding portion of this letter.

(1) *I believe that my voice shall reach the masses and the community will not face water scarcity this year.*

(2) *I hope my views get published in the columns of your esteemed newspaper so that Dadar area can prevent scarcity of water and healthy habits of water conservation and rainwater harvesting can be culminated throughout.*

A. Yes, to (1) because of assertive tone.
B. Yes, to (2) because of formal and polite tone.
C. No, to (1) because of informal tone.
D. No, to (1) because of formal tone.

Q. 30 Select the option that shall complete the concluding line appropriately.
I hope that this letter will .....
A. help to spread awareness about the issue.
B. lead you to take some action for my words.
C. help you to think about it.
D. result in a reformation in the society.

LITERATURE

This section has sub-sections-V, VI, VII, VIII & IX. There are a total of 30 questions in this section. Attempt any 26 questions from the sub-sections V to IX.

V. Read the given extract to attempt the questions that follow:

When he finished, he went to the window to buy a stamp which he licked and then affixed to the envelope with the blow of his fist. The moment the letter fell into the mailbox the postmaster went to open it. "God: Of the money that I asked for, only seventy pesos reached me. Send me the rest, since I need it very much. But don't send it to me through the mail because the post office employees are a bunch of crooks. Lencho."

(A Letter to God)

Q. 31 When is Lencho thinking about the money? Choose the correct option.
A. while writing the second letter.
B. while writing about crop failure.
C. while writing his third letter.
D. while stamping the letter.

Q. 32 Why does Lencho refers post office employees as crooks?
A. because he received less money.
B. because he was cheated of money.
C. because they had charged money.
D. because they owed him money.

Q. 33 Lencho compares ..... to bunch of crooks.
A. farmers
B. post office employees
C. the people living on hills
D. villagers

Q. 34 When Lencho says that *"But don't send it to me through the mail because the post office employees are a bunch of crooks."*, he means that they are .....
A. stubborn and dishonest
B. faithful
C. lovable people
D. trust- worthy

Q. 35 Select the suitable word from the extract to complete the following:
attempt: try: : clutch : .....
A. reached
B. fist
C. licked
D. affixed

VI. Read the given extract to attempt the questions that follow:

"Mr Keesing had a good laugh at my arguments, but when I proceeded to talk my way through the next lesson, he assigned me a second essay. This time it was supposed to be on 'An Incorrigible Chatterbox'. I handed it in, and Mr Keesing had nothing to complain about for two whole lessons. However, during the third lesson, he'd finally had enough. "Anne Frank, as a punishment for talking in class, write an essay entitled-'Quack, Quack, Quack, said Mistress Chatterbox'."

(From the Diary of Anne Frank)

Q. 36 How does Anne feel when Mr. kessing said that,

"Anne Frank, as a punishment for talking in class, write an essay entitled-'Quack, Quack, Quack'?

(1) She was happy as she had to write three essays on the same topic.

(2) She enjoyed making fun of Mr. Keesing in her own way.

(3) She was worried as she had run out of original ideas for her essay.

(4) She was thrilled at another opportunity to showcase her writing abilities.

Choose the correct option from the following:

A. (1) and (3)
B. Only 3
C. (1), (3) and (4)
D. (2) and (4)

Q. 37 Select the most appropriate option for (1) and (2)

(1) Mr. Keesing was happy with Anne Frank.

(2) He assigned her extra homework.

A. (1) is true and (2) is false.

B. (1) is false and (2) is true.

C. (2) is the opposite of (1).

D. Both (1) and (2) cannot be inferred from the extract.

Q. 38 From the options given below, identify Mr. Kessing's nature in the extract.

A. jovial and creative
B. strict and innovative
C. tolerant and strict
D. innovative and jovial

Q. 39 Select the option which displays an example of *'chatterbox'*

A.	Once aboard my flight I spent the next several hours squeezed between a talkative sailor and a woman with a fussy child.	B.	He is rather bashful and refused to come out of his car for the photograph.
C.	I couldn't sit mumchance and have everything put on me.	D.	Although you may assume the famous comedian is an extrovert, he is really a very shy man.

Q. 40 What do we get to know about Anne when she says the following?

This time it was supposed to be on 'An Incorrigible Chatterbox'. I handed it in

Choose one from the following to answer.

A. She is happy to write essays.

B. She is proud of her essays.

C. She is confident that she can write essays.

D. She is proud about the essay and its timely submission.

VII. Read the given extract to attempt the questions that follow:

What is the boy now, who has lost his ball,
What, what is he to do? I saw it go
Merrily bouncing, down the street, and then
Merrily over — there it is in the water!
No use to say 'O there are other balls':
An ultimate shaking grief fixes the boy
As he stands rigid, trembling, staring down
All his young days into the harbour where
His ball went. I would not intrude on him

(The Ball Poem)

Q. 41 The expression 'what' in the line *'what is he to do'* mean .....

A. Happiness over the lost ball
B. Gladness over the lost ball
C. Grief over the lost ball
D. Course of action

Q. 42 What does the boy learn from the loss of the ball?

(1) Stand up and leave behind the losses
(2) Material objects can be replaced.
(3) Happiness can be bought for a price.
(4) Losses in life can be prevented with care.
(5) Life continues despite losses.

A. (1), (2) and (5)
B. (2) and (4)
C. Only (1)
D. (3) and (5)

Q. 43 The boy is learning how to stand rigid.
This means that he is learning to be .....

A. tolerant
B. resilient
C. protective
D. predicting

Q. 44 Whom does the poet refer to as merrily bouncing down the street?

A. The little boy
B. The ball
C. Himself
D. People

Q. 45 What does the poet want to express in the words *"No use to say O there are other balls"*?

A. No need to be worried
B. Purchase a new ball
C. Other things cannot bring back the loss.
D. No need to grieve

VIII. Read the given extract to attempt the questions that follow:

I tried to sound severe: "Now I really mean this. If you don't cut his food right down and give him more exercise he is going to be really ill. You must harden your heart and keep him on a very strict diet."

(A Triumph of Surgery)

Q. 46 The speaker was addressing to .....

A. Tricki, the pet.
B. Mrs Pumphrey
C. The maid
D. The walker

Q. 47 Why was the speaker trying to sound severe?

A. To make Mrs. Pumphrey understand the seriousness of her pet's health and to act on it.
B. To Joke with Mrs. Pumphrey.
C. He wanted to take Tricki from Mrs. Pumphrey.
D. He needed a pet.

Q. 48 Select the option listing the speaker's tone, as revealed in the extract.

(1) optimistic
(2) worried
(3) harsh
(4) friendly

A. (2) and (4)
B. Only (3)
C. (2), (3) and (4)
D. Only (4)

Q. 49 Select the most appropriate option based on (1) and (2).

(1) If you don't cut his food right down and give him more exercise, he is going to be really ill.
(2) You must not harden your heart and keep him on a very strict diet.

A. (2) is true and (1) is false.
B. (2) is the result for (1).
C. (2) is the cause for (1).
D. (2) is false and (1) is true

Q. 50 The phrase *harden your heart* suggests that Mrs Pumphrey should .....

A. be lenient
B. be compassionate
C. toughen up
D. sympathize

IX. Attempt the following.

Q. 51 Mandela was ..... when he says, *"Out of the experience of an extraordinary human disaster that lasted too long, must be born a society of which all humanity will be proud."*

A. hopeful
B. confused
C. reluctant
D. excited

Q. 52 Which option correctly replaces the underlined phrase in the given line from *His First Flight*?

Then a monstrous terror seized him and his heart <u>*stood still*</u>.

A. Started to beat very fast.
B. Halted temporarily.
C. Stopped beating permanently.
D. Getting fits.

Q. 53 The old Dacota's pilot asked the lady in the control centre about the other pilot because .....

A. he was awestruck by his skills.
B. he wanted to fight with him for putting his life in danger.
C. he felt the other pilot was his old friend.
D. he wanted to thank him for saving his life.

Q. 54 When Anne remarked 'Paper has more patience than people,' she was ..... .

A. anxious and depressed, thinking about what to wear.

B. excited and cheerful about how wonderful the paper is.

C. bored and was wondering whether to go outside or stay back inside.

D. planning and strategizing how to write her first essay.

Q. 55 In the poem *Dust of Snow*, how the snow affected the author?

It made his mood.....

A. sad B. relaxed

C. gloomy D. uplifted

Q. 56 The boy who lost the ball, first felt the sense of ..... .

A. responsibility B. loss

C. sadness D. ownership

Q. 57 In the poem *A Tiger in the Zoo*, select the right combination where the tiger is according to the given statements:

(1) He should be lurking in shadow,
Sliding through long grass

(2) And stares with his brilliant eyes
At the brilliant stars.

A. Jungle, Jungle. B. Zoo, Zoo.

C. Zoo, Jungle. D. Jungle, Zoo.

Q. 58 Identify the option which correctly shows the changing temperament of the scientist.

A. quick tempered, later furious

B. witty then humorous

C. kind, later ruthless

D. obedientthen furious

Q. 59 Hari Singh made a ..... meal for Anil on the first night.

A. delicious B. terrible

C. healthy D. Italian

Q. 60 Why did Mr. Herriot say "I was really worried about Tricki this time."?

A. Tricki, the cat had fallen ill.

B. Tricki, the dog had gone weak and pale.

C. Tricki, the cat had a broken limb.

D. Tricki, the dog had turned hugely fat.

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Sample Paper 2

English Language & Literature

READING

I. Read the passage given below.

I. Climate change is one of the biggest global problems and almost every country is affected by it. The main cause of climate change is the emission of greenhouse gases such as carbon dioxide. The concentration of carbon dioxide has increased mainly due to the burning of fossil fuels like oil and coal. The average temperature of the earth has risen by more than 1° Celsius as compared to the pre-industrial era, 2016 being the warmest year recorded. This has caused the shrinkage of snow cover in mountains like the Alps, Himalayas, Andes, Rockies, Alaska and Africa. NASA's experiments have shown a massive loss of ice cover in Greenland and Antarctica. Particularly Greenland has lost approximately 286 billion tons of ice per year since 1993. In the last century, the seawater level has raised by almost 20 centimetres. As oceans absorb carbon dioxide from the atmosphere, its pH level decreases. This phenomenon is called ocean acidification. It is affecting the coral reef ecosystem. Climate change has caused erratic precipitation patterns all over the world.

II. Reducing the emission of greenhouse gases can limit climate change. This can be achieved by reducing consumption of fossil fuels and incorporating renewable resources such as solar energy, hydropower, wind energy, etc., for power generation. Climate change will require modification of key services and infrastructure. Climate action can derive economic benefits to the tune of 26 trillion and generate more than 18 million jobs in the sustainable energy sector alone by 2030.

III. The Government of India launched the National Action Plan on Climate Change on 30th June 2008; focusing on solar power, sustainable agriculture, energy efficiency, water, etc. The Government has set a target of producing 100 GW of solar capacity by 2022. This will abate nearly 190 million tons of CO_2 over its life cycle. More such steps, such as the development of public transportation are needed to be taken up by the government.

Based on your understanding of the passage answer <u>any eight</u> out of the ten questions by choosing the correct option.

Q. 1 Emission of greenhouse gases causes which of the following phenomenon?

A. rise in temperature
B. shrinkage of snow cover
C. rise in sea level
D. all of these

Q. 2 Select the option that suitably completes the dialogue with reference to paragraph II.

Anju: Climate change is a real and dire threat to humanity. We need to check the use of fossil fuels since they are the reason for heavy greenhouse emissions.

Manju: Besides reducing their consumption we must also .....

A. give chance for the earth to heal itself naturally.
B. invest in renewable energy infrastructure.

C. look away from the options of renewable resources.

D. make the prices of fossil fuels unaffordable so that people may stop using them.

Q. 3 What is the message conveyed in the second paragraph?

A. Climate change cannot be limited.

B. Limiting climate change will have no impact on the economy.

C. Limiting climate change can help create jobs in sustainable energy sector by 2030.

D. Reduction of fossil fuels will have an undesirable impact on limiting climate change.

Q. 4 Which of the following can be used to bring an effective climate control?

A. solar power B. electricity

C. water resources D. fertile soil

Q. 5 Select the option with the underlined words that can suitably replace *abate* (paragraph III).

A. Yoga is practiced to <u>reduce</u> stress and develop flexibility.

B. It is often useless to <u>debate</u> with people who do not value your opinion.

C. Victory <u>awaits</u> those who dare to work hard.

D. Climate change is worsening with the <u>increase</u> in greenhouse gases.

Q. 6 Synecdoche is a figure of speech in which the word is used to signify the whole, or vice-versa. (example- 'Behind bars' signifies being in jail)

From the options given below, select a Synecdoche that appears in the para I.

A. Pre-industrial era B. Precipitation

C. Climate change D. Seawater

Q. 7 Choose the option that correctly specifies the two aspects of 'fossil fuels' as used in the passage.

(1) burning (2) consumption

(3) reduction (4) conservation

(5) production

A. (1) and (2) B. (2) and (3)

C. (3) and (4) D. (4) and (5)

Q. 8 Which of the following will be the most appropriate title for the passage?

A. World moves on B. Weather is turning

C. Climate change crisis D. Climate change; a hoax

Q. 9 What does the writer advise, in paragraph III?

A. Government of India should learn from western countries to tackle climate change.

B. Development of public transports should be prioritized first.

C. Climate change can only be limited by reducing the emission of greenhouse gases.

D. Focusing on solar energy infrastructure is crucial to fight climate change.

Q. 10 Choose the option that lists the quote best expressing the central idea of the passage.

(1) "Stopping climate change will make us richer than doing nothing." —*James Shaw*

(2) "Although the magnitude of climate change may make individuals feel helpless, individual action is critical for meaningful change." —*Mia Armstrong*

(3) "Climate change will test our intelligence, our compassion and our will. But we are equal to that challenge." —*Justin Trudeau*

(4) All of these

A. option (1) B. option (2)

C. option (3) D. option (4)

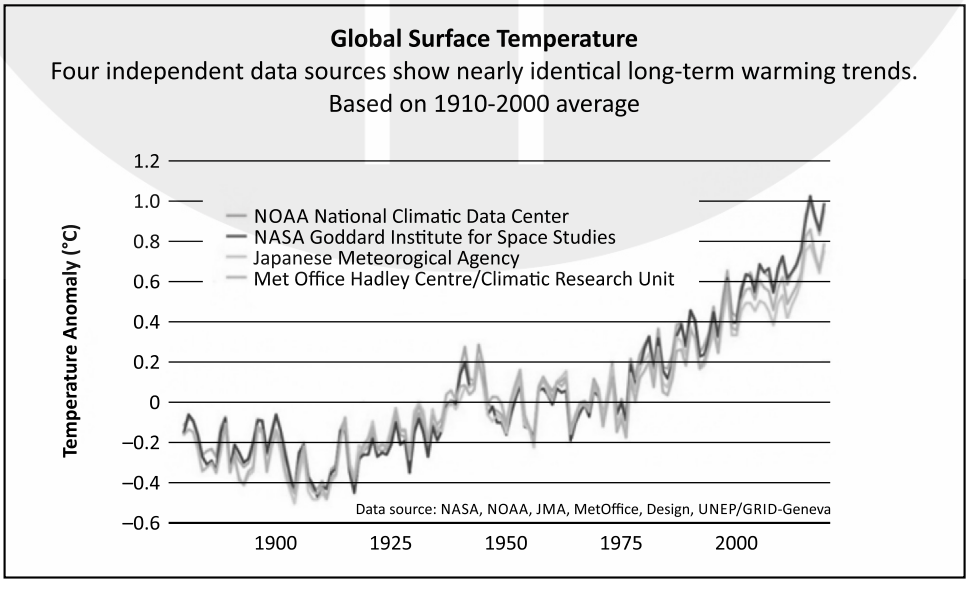
II. Read the passage given below.

I. Data from satellite sources assembled by the United Nations Environment Programme's (UNEP) World Environment Situation Room confirms that the wildfires in Australia in the last two months of 2019 and the first six weeks of 2020 were far from normal. 2019 was the second hottest year on record since 1880, and Australia recorded its warmest temperatures ever in December 2019.

II. "Rising temperatures continue to melt records. The past decade was the hottest on record. Scientists tell us that ocean temperatures are now rising at the equivalent of five Hiroshima bombs a second. One million species are in near-term danger of extinction. Our planet is burning," says United Nations Secretary-General António Guterres.

III. "The trend is very clear: 37 of the last 40 years were the warmest recorded since 1880, and the six warmest years recorded were the last six years," says Pascal Peduzzi, Director of UNEP's Global Resource Information Database in Geneva. "For those who think Australia is always burning, graphs clearly show that these fires were exceptional."

IV. "This service, accessible via the UNEP's World Environment Situation Room, is provided for all countries at national and provincial levels. It identifies trends in wildfire activity since 2003, when the data first became available and monitoring began. We have sliced and diced the satellite-based data on wildfires worldwide from 2009 to the present day. We analyse the wildfires' data by month, type of land cover, protected area, province and nation to produce information products," Peduzzi adds.



(Source: UN Environment)

Based on your understanding of the passage answer <u>any six</u> out of the eight questions by choosing the correct option.

Q. 11 The purpose of the statement by United Nations Secretary-General António Guterres was to bring attention to the ..... . Choose the correct option.

A. bombing of Hiroshima and the heat it produced.

B. extinction of polar bears.

C. rising global temperature and its perils.

D. wildfires in Australia.

Q. 12 Choose the option that lists the CORRECT answers for the following:

(1) "Rising temperatures continue to melt records. The past decade was the hottest on record. Scientists tell us that ocean temperatures are now rising at the equivalent of five Hiroshima bombs a second". Whose statement is this?

(2) "The trend is very clear: 37 of the last 40 years were the warmest recorded since 1880, and the six warmest years recorded were the last six years." Whose statement is this?

A. (1) is from United Nations Secretary and (2) is from the UN President

B. (1) is from the UN President and (2) is from the UN General Secretary

C. (1) is from United Nations Secretary and (2) is from the Director of UNEP

D. (1) is from the UN General Secretary and (2) is from the UN President

Q. 13 Select the option that gives the correct meaning of the following statement.

"For those who think Australia is always burning, graphs clearly show that these fires were exceptional."

A. Wildfires happen in Australia all year round.

B. Wildfires recorded recently show no deviation from past records.

C. Recent wildfires in Australia show a concerning rise in overall temperature.

D. Recent wildfires in Australia are anything but exceptional.

Q. 14 What was the difference in the recorded temperatures in 2019 from the 1880s?

A. 2019 recorded the wettest temperatures since 1880s.

B. 2019 recorded the hottest temperatures ever.

C. 2019 recorded the cooler temperatures than 1880s.

D. 2019 recorded the warmest temperatures since 1880s.

Q. 15 Select the option listing what the given sentence refers to.

"This service, accessible via the UNEP's World Environment Situation Room, is provided for all countries at national and provincial levels."

(1) The database records are accessible to all.

(2) The database is not easy to access.

(3) The monitoring of data is done through UNEP.

(4) World Environment Situation Room has the authority to share the service.

(5) UNEP's World Environment Situation Room holds services only at national levels.

A. (1), (2) and (4)

B. (1), (3) and (4)

C. (3), (4) and (5)

D. (1), (4) and (5)

Q. 16 What comparison has been made between the rising sea temperatures and Hiroshima?

A. Ocean temperatures are rising at the equivalent of three Hiroshima bombs a second.

B. Ocean temperatures are rising at the equivalent of five Hiroshima bombs a second.

C. Ocean temperatures are rising at the equivalent of five Hiroshima bombs an hour.

D. None of these.

Q. 17 The graph compiled with data from four different sources shows that the global surface temperatures have been ..... .

A. steady

B. falling

C. on the rise

D. none of these

Q. 18 How can you say that the UN is concerned about the rising numbers of coal plants?

A. UNDP Secretary General António Guterres is calling for curbs on new plants.

B. UN Secretary General António Guterres is calling for curbs on new plants.

C. UN Executive Secretary António Guterres is calling for curbs on new plants.

D. UN Secretary General Antony Guterres is calling for curbs on new plants.

GRAMMAR and WRITING

GRAMMAR

III. Answer <u>any five</u> out of six questions by selecting the most appropriate option for each.

Q. 19 The teacher was complaining. It is high time that you ..... improve your spelling.

A. should

B. must

C. can

D. could

Q. 20 Although he has ..... knowledge in electrics, he can repair radios easily.

A. few

B. little

C. a few

D. plenty of

Q. 21 I am sorry I forgot to tell you that I ..... his message a week ago.

A. will receive

B. received

C. receive

D. will have received

Q. 22 Which option displays the correct change of the following to reported speech?

"Get the prisoners to the wall", said the jailor.

A. The jailor asked to get the prisoners to the wall.

B. The jailor said to get the prisoners to the wall.

C. The jailor told that can the prisoners be got to the wall.

D. The jailor commanded them to get the prisoners to the wall.

Q. 23 Which option displays the correct change of the following to reported speech?

The detective said, "Maintain silence and listen to me".

A. The detective asked them to maintain silence and listen to me.

B. The detective request them to maintain silence and listen to him.

C. The detective urged them to maintain silence and listen to him.

D. The detective asked whether to could maintain silence and listen to him

Q. 24 The mission is yet to be achieved. They ..... trying it for years now.

A. are
B. will
C. has been
D. have been

WRITING

IV. Answer <u>any five</u> out of six questions given, with reference to the context below.

You are Ramesh, a resident of Indore. Write a letter to the editor of a national daily describing the difficulties faced by poor families due to inflation and how the rising prices of goods is giving a tough time to all.

Q. 25 Which of the following should be a part of the letter?

A. Newspaper's name
B. Sender's address
C. Prices of goods as reference
D. All of the above

Q. 26 Select the appropriate subject for this letter.

A. Inflation and its effects on the people.
B. Why are prices rising?
C. The effect of rising prices on shopping capacity.
D. Rich becoming richer and poor poorer.

Q. 27 Which of the following should Ramesh include in the body of his letter?

A.	Paying capacity, unemployment, soaring prices	B.	Increasing pollution, global warming, luxury goods
C.	Traveling restrictions, lack of recreation	D.	Rupee vs dollar, Indian economy, elections

Q. 28 Choose the correct option to complete Ramesh's description of inflation in his letter.

Inflation and (i) ..... are the two most talked-about words in the contemporary society. These two are the big problems that (ii) ..... all the economies.

A. (i) recession (ii) decorate
B. (i) unemployment (ii) plague
C. (i) pollution (ii) spoil
D. (i) economy (ii) deteriorate

Q. 29 Select the option that justifies the choice of the concluding portion of this letter.

(1) *It is high time that the concerned authorities should wake up to this social cause and try to put reins to the rising price so that people can lead a comfortable and peaceful life.*

(2) *I hope my views on inflation shall prove to be of help to your readers and the authorities shall definitely take some measures to help the citizens.*

A. Yes to (1), because of assertive and hopeful tone.
B. Yes to (2), because of formal and polite tone.
C. Yes to both (1) and (2).
D. No to (1), because of informal and presumptuous tone.

Q. 30 Select the option that completes the concluding line appropriately.

I hope that my letter will .....

A. help spread awareness about the issue.

B. lead to dismissal of the current government.

C. rise the number of advertisements in your daily.

D. help in creating awareness in the society and draw the attention of the authorities.

LITERATURE

This section has sub-sections-V, VI, VII, VIII & IX. There are a total of 30 questions in this section. Attempt any 26 questions from the sub-sections V to IX.

V. Read the given extract to attempt the questions that follow:

The day before, all day long, he had watched his parents flying about with his brothers and sister, perfecting them in the art of flight, teaching them how to skim the waves and how to dive for fish. He had, in fact, seen his older brother catch his first herring and devour it, standing on a rock, while his parents circled around raising a proud cackle. And all the morning the whole family had walked about on the big plateau midway down the opposite cliff taunting him with his cowardice.

(Two Stories about Flying)

Q. 31 What was the effect of taunting young seagull as cowardice?

A. He afterwards succeeded in flying.

B. He was demotivated.

C. He was angry with his parents.

D. He got jealous of his brother and sister.

Q. 32 *'While his parents circled around raising a proud cackle.'* Based on the given sentence, pick the option that corresponds to what human parents would say.

A. Well done!

B. Oh no!

C. Ready?

D. Really?

Q. 33 The young seagull had ..... brothers and sisters.

A. four

B. three

C. two

D. seven

Q. 34 Which of the following feelings did the young gull, NOT feel according to the given context?

"…all day long, he had watched his parents flying about with his brothers and sister…"

(i) sad

(ii) incompetent

(iii) excluded

(iv) ungrateful

(v) inspired

(vi) jealous

(vii)anxious

Choose the correct option:

A. (i), (iii), (vi)

B. (ii), (v), (vii)

C. (ii), (iii), (vii)

D. (iv), (v), (vi)

Q. 35 Select the most appropriate option for the following:

angry : furious: : guzzle : .....

A. cliff

B. savour

C. devour

D. cackle

VI. Read the given extract to attempt the questions that follow:

We, who were outlaws not so long ago, have today been given the rare privilege to be host to the nations of the world on our own soil. We thank all of our distinguished international guests for having come to take possession with the people of our country of what is, after all, a common victory for justice, for peace, for human dignity. We have, at last, achieved our political emancipation. We pledge ourselves to liberate all our people from the continuing bondage of poverty, deprivation, suffering, gender and other discrimination.

(Nelson Mandela: Long Walk to Freedom)

Q. 36 Why does Mandela feel the following?

We pledge ourselves to liberate all our people from the continuing bondage of poverty, deprivation, suffering, gender and other discrimination.

(1) The people including Mandela were free from discrimination.

(2) Mandela and his people were now liberated.

(3) Mandela wanted to rule his people with authority.

(4) Mandela felt the need of the hour for his people.

(5) Mandela was inhuman.

Choose the correct option from the following:

A. (1) and (5) B. (1), (3) and (4)

C. (2) and (4) D. (2), (4) and (5)

Q. 37 Select the most appropriate option for (1) and (2).

(1) *We have, at last, achieved our political emancipation.*

(2) Mandela is referring to himself.

A. (1) is true and (2) is false.

B. (2) is the opposite of (1).

C. (1) furthers the meaning of (2).

D. Both (1) and (2) cannot be inferred from the extract

Q. 38 Why does the speaker call it as 'rare privilege'?

A. They had never received such honour.

B. They had always received such honour.

C. They had been chosen over other countries for this honour.

D. They had experienced such honour for the first time.

Q. 39 Select the option which displays an example of *gender discrimination*.

A.	The parents throw a party on the birth of a male child and not on the female child.	B.	The children are enjoying themselves at a party.
C.	She just fed the rescued animals.	D.	Both the parents are working hard to take care of the family.

Q. 40 What would 'human dignity' include in the above extract?

A. (i) self-respect (ii) immorality (iii) equality

B. (i) liberty (ii) immorality (iii) indecency

C. (i) equality (ii) decency (iii) liberty

D. (i) equality (ii) liberty (iii) self-respect

VII. Read the given extract to attempt the questions that follow:

The way a crow
Shook down on me
The dust of snow
From a hemlock tree
(Dust of Snow)

Q. 41 What does the poet try to signify in the poem *Dust of Snow*?

A. Wastage of time.
B. Importance of time.
C. How to spend time.
D. Loss of time.

Q. 42 Where do you think is the poet sitting, according to the extract?

(1) Besides the hemlock tree.
(2) On the branch of a hemlock tree.
(3) Under the hemlock tree.
(4) Below the crow.
(5) Below the crow, besides the hemlock tree.

A. (1), (2) and (5)
B. (3) and (4)
C. Only (1)
D. (3) and (5)

Q. 43 The crow and hemlock tree represents ..... in this extract.

A. negativity and sorrow
B. joy and sorrow
C. positivity and negativity
D. sadness and joy

Q. 44 What type of tree is a hemlock tree?

A. Edible
B. Poisonous
C. Auspicious
D. Decorative

Q. 45 In what mood was the poet?

A. Pensive mood
B. Depressive mood
C. Cheerful mood
D. Angry mood

VIII. Read the given extract to attempt the questions that follow:

I was still a thief when I met Anil. And though only 15, I was an experienced and fairly successful hand. Anil was watching a wrestling match when I approached him. He was about 25 — a tall, lean fellow — and he looked easy-going, kind and simple enough for my purpose. I hadn't had much luck of late and thought I might be able to get into the young man's confidence.

(The Thief's Story)

Q. 46 'I' referred to ..... in the above extract.

A. Hari Singh
B. Ruskin Bond
C. Jumna
D. Anil

Q. 47 For what does the thief not visualize Anil as himself?

A. Tall and lean
B. Easy-going
C. Kind and simple
D. Experienced

Q. 48 Select the option listing the thief's characteristics, as revealed in the extract.

(1) very successful
(2) fairly successful

(3) tall

(4) good cook

(5) lean

A. (2) and (3)
B. Only (5)
C. (1), (2) and (4)
D. Only (2)

Q. 49 Select the most appropriate option based on (1) and (2).

(1) Anil was watching a wrestling match.

(2) Hari Singh was wrestling.

A. (2) is true and (1) is false.
B. (2) is the result for (1).
C. (2) is the cause for (1).
D. (2) is false and (1) is true.

Q. 50 The phrase *hadn't had much luck* suggests that Hari Singh was.....

A. successful.
B. unsuccessful.
C. fortunate.
D. lucky.

IX. Attempt the following.

Q. 51 *"But it looked like her, Maddie! It really looked like her own mouth."* What was Maddie's reaction at this moment?

A. Amazed and excited
B. Amazed and sad
C. Hopeful and happy
D. Scared and shocked

Q. 52 Which option correctly replaces the underlined phrase in the given line from Dust of Snow?

"And saved some part
Of a day I had <u>*rued*</u>."

A. was afraid of
B. hardly cared
C. bitterly regretted
D. lived with happiness

Q. 53 Anne along with ..... was sent to live with their grandmother in ..... .

A. Magot, New Jersey
B. Margot, Aachen
C. Sam, Aachen
D. Kitty, Berlin

Q. 54 The other pilot turned his aeroplane slowly to the north, in front of the Dacota plane. This meant that the other pilot wanted ..... .

A. to make the Dacota's pilot easily follow him.
B. to get the Dacota plane crashed.
C. to allow the Dacota to overtake his plane.
D. to ensure that he gets lost in the clouds.

Q. 55 In the poem *A Tiger in the Zoo*, which phrase is used to describe the "Tiger of the Jungle"?

A. He stalks in his vivid stripes.
B. Baring his white fangs.
C. He hears the last voice at night.
D. In his quiet rage.

Q. 56 Mandela compares Man's goodness to ..... .

A. a tree that can bend but never stop giving fruits.

B. a river that keeps flowing and benefits everyone.

C. a promise that needs to be fulfilled.

D. a flame that can be hidden but never extinguished.

Q. 57 In the poem *Fire and Ice*, which phrase describes that the hatred amongst people is growing fast?

A. Some say the world will end in fire.

B. Some say in ice.

C. To say that for destruction ice.

D. I hold with those who favour fire.

Q. 58 Identify the option that aptly describes the benefits received by the staff because of Mrs. Pumphrey's overdoing?

A. breakfast with eggs, lunch with wine and dinner with milk.

B. breakfast with meat, lunch with wine and dinner with brandy.

C. breakfast with eggs, lunch with whisky and dinner with brandy.

D. breakfast with eggs, lunch with wine and dinner with brandy.

Q. 59 Complete the sentence with the most suitable phrase:

"But Jaffers was ..... from doing his duty."

A. easily dissuaded

B. disinterested

C. not easily prevented

D. strong motivated

Q. 60 Hari Singh went back to Anil because he felt .....

A. he'll get caught as he had missed the train.

B. being a respected and clever man meant something else.

C. later he could become the owner of Anil's business.

D. he could rob more money some other day.

❑❑

Sample Paper 3

English Language & Literature

READING

I. Read the passage given below.

I. The difference between democracy and dictatorship is that in a democracy, people get to choose their leaders while in a dictatorship, a single individual or political entity rules the country. Democracy allows the free development of human personality whereas the other form of government hinders the development of human personality. Both are opposite political philosophies in terms of perception and approach and come with some merits and demerits.

II. The basic characteristics of democracy are equality, liberty and fraternity. It gives freedom of thought, speech and expression. It promises active participation and involvement of the governed in the governance. The chief principle of democracy is that power is implemented with respect to human rights. It makes people interested in the country and its democratic process. In democratic government, individuals' freedom and rights are given importance. Democracy gives right to eligible people to choose their leader but most people make irrational judgements. The majority of population in developing nations such as India is illiterate and the judgement made is not completely independent.

III. In dictatorship, the governed has no right to voice his/her opinion. While in dictatorship, the absolute power is concentrated in the hands of the dictator. A strong and well-run dictatorship can be very effective. It can prove to be better than democracy. But there is a fear that the dictator may become authoritarian and ruthless. As the power lies in the hands of a single individual, it is solely on the dictator as to how he uses the power. He can use it for the advancement of the nation or for purposes like exploiting people, terrorism and so on.

IV. There is no guarantee that justice would be served in any form of government. The success of any form of government is based on the selection of rulers or political leaders selected by the people. Personally, I value the dignity of the individual, equality and justice. I believe democracy is any day better than the other alternatives.

Based on your understanding of the passage answer <u>any eight</u> out of the ten questions by choosing the correct option.

Q. 1 People get to choose their leaders in which government?

A. Democracy

B. Dictatorship

C. Authoritarianism

D. Totalitarianism

Q. 2 Select the option that suitably completes the dialogue with reference to paragraph III.

Raj: Democracy is run by uninformed and illiterates. I'd rather believe in a good dictatorship for quick and effective results.

Ali: Yes, but do not forget that .....

A. a dictator may become liberal and passive.

B. democracy gives everyone freedom and rights.

C. democracy can also be run by a dictator.

D. a dictator may become authoritarian and ruthless.

Q. 3 Choose the option that best conveys the message in –

'There is no guarantee that justice would be served in any form of government.'

A. Governments are only as efficient as the humans who run it.

B. Governments formed by democracy are better.

C. No government can serve complete justice with full transparency.

D. Justice cannot be expected in any form of government.

Q. 4 What kinds of people are there in developing nations?

A. literate B. illiterate

C. poor D. rich

Q. 5 Select the option with the underlined words that can suitably replace *entity* (paragraph I).

A. The <u>entire</u> universe is constantly expanding.

B. The college <u>establishment</u> is pretty strict regarding the student's attendance.

C. Lord Krishna is the vital <u>deity</u> in the epic of Mahabharata.

D. Prices in fast food restaurant menus should be <u>inclusive</u> of all taxes.

Q. 6 Juxtaposition is placing two ideas or characters side by side in a narrative for contrast or comparison.

From the options given below, select a Juxtaposition that appears in the para III.

A. dictatorship and democracy

B. democracy and liberty

C. liberty and equality

D. authoritarian and ruthless

Q. 7 Choose the option that correctly states the two different aspects of 'dictatorship', as used in the passage.

(1) No right to the governed

(2) Dictatorship can be ineffective

(3) Dictatorship give freedom

(4) Dictatorship never succeeds

(5) Strong dictatorship can be effective

A. (1) and (4) B. (3) and (5)

C. (1) and (5) D. (2) and (4)

Q. 8 Which of these is not a basic characteristic of democracy?

A. Religion B. Equality

C. Liberty D. Fraternity

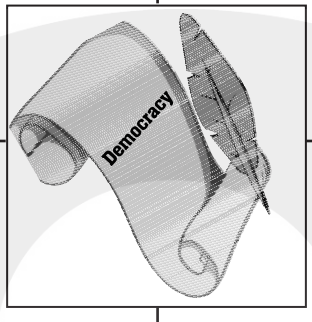
Q. 9 The chief principle of democracy is that power is implemented with respect to human .....

A. rights
B. duties
C. violations
D. responsibilities

Q. 10 Choose the option that best captures the central idea of the passage from the given quotes.

(1) "If men are angels, no government would be necessary." – James Madison.

(2) "Democracy is the theory that the common people know what they want, and deserve to get it good and hard." –H. L. Mencken



(3) "Democracy is like a streetcar - When you come to your stop, you get off."
–Recep Tayyip Erdogan

(4) "Democracy is an abuse of statistics." –Jorge Luis Borges

A. option 1
B. option 2
C. option 3
D. option 4

II. Read the passage given below.

I. With novel Coronavirus spreading rapidly all over the country, there are only three states right now, Meghalaya, Sikkim and Andaman and Nicobar Islands, that have less than 1,000 people infected with the disease.

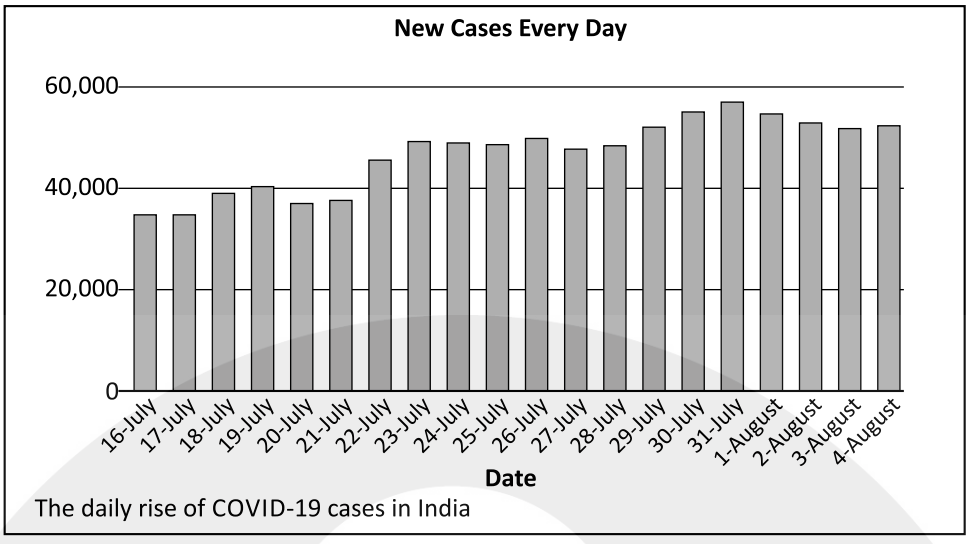
II. Lakshadweep, of course, still hasn't reported even a single case till now, the only region in India entirely free of the epidemic.

III. Otherwise, even the relatively smaller states now have significantly large spread of the disease. Goa, for example, has seen more than 7,000 of its people infected by the virus till now. Tripura has over 5,500 cases, while Manipur has more than 3,000, and Nagaland a little less than 2,500. Puducherry has more than 4,000 cases, while even Daman and Diu has over 1,300 people infected.

IV. And in each of these states, the numbers are rising at a fast pace, at a rate higher than the national level. The infections had initially reached these states in the first and second week of May, when the lockdown was relaxed for the first time to enable people stuck in different parts of the country to return to their native places.

V. After a period of very slow growth, the number of cases have begun to rise rapidly in the last one month. In Goa, for example, the total number of infected people has nearly doubled in the last 15 days. Same has happened in Puducherry, as well.

VI. Tuesday was one of those rare occasions when the number of active cases in the country, those who are yet to recover from the disease, went down compared to the previous day. That is because the number of recoveries, combined with the number of deaths, exceeded the new cases that were detected on Tuesday.



The daily rise of COVID-19 cases in India

VII. With over 52,500 new cases detected in the country, the total number of infections crossed 19 lakh, out of which 12.82 lakh people have recovered from the disease. The number of dead is now close to 40,000.

VIII. The number of recoveries on Tuesday was the highest-ever for a single day. More than 51,700 people were declared to have been recovered. Three days earlier, the number of recoveries had crossed 50,000 for the first time, but the next two days the number had fallen to much lower levels.

(Source: The Indian Express)

Based on your understanding of the passage answer <u>any six</u> out of the eight questions by choosing the correct option.

Q. 11 The reason why the data recorded on Tuesday was quoted rare as ..... . Choose the correct option.

A. the number of recoveries, combined with the number of deaths, were lower than the new cases.

B. the number of casualties, exceeded the new cases.

C. the number of new cases, combined with the number of deaths, exceeded the recoveries.

D. the number of recoveries, combined with the number of deaths, exceeded the new cases.

Q. 12 Select the option that is true for the two statements given below.

(1) There were 52,500 new cases detected in the country.

(2) The total number of infections crossed 19 lakh.

A. (2) is the result of (1).

B. (1) is the result of (2).

C. (1) is independent of (2).

D. (1) contadicts (2)

Q. 13 Select the option that gives the correct meaning of the following statement.

'And in each of these states, the numbers are rising at a fast pace, at a rate higher than the national level.'

A. These states are facing growth of new cases more than the national average.

B. National rates are at an all-time high.

C. These states are facing growth of new cases fewer than the national average.

D. These states cannot control the spread like rest of the nation.

Q. 14 According to research, the infections had initially reached the state of Goa in the first and second week of May because ..... .

A. people were staying in their native places when the lockdown was relaxed.

B. lockdown became even more strict.

C. people remain stuck and could not move away.

D. people were migrating to their native places when the lockdown was relaxed.

Q. 15 Select the option listing what the given sentence refers to.

'After a period of very slow growth, the numbers of cases have begun to rise rapidly in the last one month.'

(1) The numbers of cases are somewhat similar in the last one month.

(2) The numbers of cases are more now than the last month.

(3) The numbers of cases are on a rise since last one month.

(4) The numbers of cases were fewer in the last month.

(5) The numbers of cases are in a period of slow growth since last one month.

A. (1), (2) and (3)

B. (2), (3) and (4)

C. (3), (4) and (5)

D. (2), (4) and (5)

Q. 16 How are these three states - Meghalaya, Sikkim and Andaman and Nicobar Islands - different from the rest of India?

A. they are the only states to have less than 1,000 people infected with novel coronavirus

B. they are three of the five states to have less than 1,000 people infected with novel coronavirus

C. they are the only states to have less than 2,000 people infected with novel coronavirus

D. none of these

Q. 17 More than 51,700 people were declared to have been recovered on ..... .

A. Wednesday

B. Sunday

C. Tuesday

D. Monday

Q. 18 Choose the correct option to answer the following:

According to paragraph V, *'In Goa, for example, the total number of infected people has nearly doubled in the last 15 days.'*

This is so because

A. lockdown relaxation led to growth of new cases.

B. Goa is too small to isolate itself from the pandemic.

C. Goa does not have as much population as Puducherry.

D. the growth of new cases was rising inevitably.

GRAMMAR and WRITING

GRAMMAR

III. Answer <u>any five</u> out of six questions by selecting the most appropriate option for each.

Q. 19 Looking at the growing rising situation of recession, the prices of goods ..... come down soon.

A. need
B. would
C. should
D. ought to

Q. 20 A wise enemy is ..... than a foolish friend.

A. more dangerous
B. better
C. more useful
D. more harmful

Q. 21 The steamer ..... yesterday.

A. sailed
B. has sailed
C. is sailed
D. is sailing

Q. 22 Which option displays the correct change of the following to reported speech?

The mother cried, "Alas! He is no more".

A. The mother exclaimed that he is no more.
B. The mother exclaimed sadly that he is no more.
C. The mother cried that he was no more.
D. The mother said with tears that he was no more.

Q. 23 Which option displays the correct change of the following to reported speech?

I said to him, "I do not believe what the newspapers say".

A. I told him that I did not believe what the newspapers said.
B. I told him I do not believe what the newspapers say.
C. I said him that I do not believe the newspapers.
D. I asserted that I do not believe what the newspapers say

Q. 24 The weekend wasn't too exciting. We were just ..... TV all day.

A. watched
B. watching
C. having watched
D. have been watching

WRITING

IV. Answer <u>any five</u> out of six questions given, with reference to the context below.

Harish decides to write a letter to the editor of a national daily to raise public awareness about using the space around them for productive community areas.

Q. 25 Which of the following should NOT be a part of the letter?

A. Harish's address
B. Newspaper's name
C. Date of publish
D. Subject of the letter

Q. 26 Which of the following will be a suitable subject for the letter?

A. Environment protection plans.
B. Steps to improve public health.
C. Utilizing public spaces for community development.
D. Ways to improve public harmony and public health.

Q. 27 Which option should Harish include to elaborate his letter?

A.	Empty spaces, grow fruits and vegetables, soil conservation		B.	Public health, individual health, hygiene, and sanitation
C.	Timely payment of taxes, administration, security		D.	Community harmony, peaceful society, standard of living.

Q. 28 Harish shares some suggestions in his letter to address the issue.

Select the option that helps him to complete his suggestions appropriately.

Urban farming should not be taken as a Herculean task. It is only a matter of effort taken to i. ..... these areas/spaces into productive, community area. Thus, people will be able to ii. ..... in pollution-free environment which is good for the health.

A. (i) change (ii) travel and enjoy

B. (i) transform (ii) breathe and shop

C. (i) reform (ii) stay and accommodate

D. (i) glorify (ii) talk about and easily move

Q. 29 Select the option that correctly justifies the choice of the concluding portion of this letter.

(1) *I hope, people will become aware of these underused spaces and take some action after reading this letter of mine.*

(2) *I assume my words shall prove to be fruitful for the residents of this city.*

A. Yes, to option 1 because of formal and polite tone.

B. No, to option 2 because of informal tone.

C. No, to option 1 because of authoritative tone.

D. Yes, to option 2 because of polite tone.

Q. 30 Select the option that completes the concluding line properly.

I hope that my letter will –

A. create awareness and make the people realize their duties.

B. createchaos in the society and my fellow residents will act promptly.

C. create awareness of waste generation and understand the importance of landfills.

D. create an awareness in the authorities

LITERATURE

This section has sub-sections-V, VI, VII, VIII & IX. There are a total of 30 questions in this section. Attempt any 26 questions from the sub-sections V to IX.

V. Read the given extract to attempt the questions that follow:

I."A hundred!" exclaimed all the little girls incredulously, and the little ones would stop playing hopscotch and listen. "Yeah, a hundred, all lined up," said Wanda. Then her thin lips drew together in silence. "What are they like? All silk, I bet," said Peggy. "Yeah, all silk, all colours." "Velvet, too?" "Yeah, velvet too. A hundred dresses," Wanda would repeat stolidly. "All lined up in my closet." Then they'd let her go. And then before she'd gone very far, they couldn't help bursting into shrieks and peals of laughter.

(The Hundred Dresses I)

Q. 31 What does the phrase *'All lined up'* indicate? Choose the correct option.

A. Disorganized
B. Disorderly
C. Arranged
D. Dumped

Q. 32 Wanda says "A hundred!" referring to.....

A. her shoes
B. her velvet gown
C. her dresses
D. her silk embroidery

Q. 33 Wanda says she has kept the dresses in .....

A. cupboard
B. wardrobe
C. closet
D. cabinet

Q. 34 When Wanda says "Yeah, a hundred, all lined up," she means that they are.....

A. strewn all over
B. scattered
C. aligned
D. disturbed

Q. 35 Select the suitable word from the extract to complete the following.

humble: proud : : emotional : .

A. incredulous
B. silence
C. stolid
D. unemotional

VI. Read the given extract to attempt the questions that follow:

There was no answer. The radio was dead too. I had no radio, no compass, and I could not see where I was. I was lost in the storm. Then, in the black clouds quite near me, I saw another aeroplane. It had no lights on its wings, but I could see it flying next to me through the storm. I could see the pilot's face — turned towards me. I was very glad to see another person. He lifted one hand and waved. "Follow me," he was saying. "Follow me." 'He knows that I am lost,' I thought. 'He's trying to help me.'

(Two Stories about Flying- Black Aeroplane)

Q. 36 Why does the narrator feel the following?

..... I was lost in the storm.

(1) The narrator's radio was dead amidst the black clouds.
(2) The narrator was flying high.
(3) The narrator lost contact of the Paris Control Room.
(4) The narrator was happy.
(5) The narrator's compass was not working.

Choose the correct option from the following:

A. (1) and (5)
B. (1), (3) and (5)
C. (2) and (3)
D. (2), (4) and (5)

Q. 37 Select the most appropriate option based on (1) and (2).

(1) "Follow me." 'He knows that I am lost,
(2) He lifted one hand and waved.

A. (2) is true and (1) is false.
B. (1) is the oppositeof (2).
C. (2) is the cause for (1).
D. (2) is false and (1) is true

Q. 38 What disaster was the narrator in?

A. He was caught in a storm.
B. He did not know how to fly.
C. He had no food.
D. He was tired.

Q. 39 Select the option which displays an example of *'gladness'*.

A.	She stood staring as his truck disappeared down the road.	B.	She closed her eyes on seeing the cockroach come closer.
C.	She was filled with happiness on seeing her grandparent that she wanted to scream out in joy.	D.	She tended to the wounds of a wounded soldier.

Q. 40 What do we get to know about the other pilot when he says the following?

"Follow me"

A. He was trying to help the narrator.
B. He wanted to lead the race.
C. He is proud of himself for showing the way to the narrator.
D. He was unsure of the paths.

VII. Read the given extract to attempt the questions that follow:

Some say the world will end in fire
Some say in ice.
From what I've tasted of desire
I hold with those who favour fire
(Fire and Ice)

Q. 41 What does the poet mean by 'tasted desire'?

A. Experienced the need to have less.
B. Never satisfied.
C. Cannot be fulfilled dreams.
D. Selfishness.

Q. 42 What are the predictions of the people regarding the end of the world in the given extract?

(1) Some say fire
(2) Some say Ice
(3) Some say both fire and ice
(4) Some say either fire or ice

A. (1), (2) and (3)
B. (1), (2) and (4)
C. (4), (2) and (3)
D. (1), (4) and (3)

Q. 43 *Some say in ice.....*

Ice symbolizes ..... in the given line.

A. indifference
B. love
C. sympathy
D. happiness

Q. 44 Why does the poet hold with those who favor fire?

A. The more you satisfy, the more it grows.
B. You cannot put an end to desires.
C. It spreads and engulfs the whole life.
D. All of the above

Q. 45 According to the poet fire refers to:

A. violent desires
B. passion
C. jealousy
D. all of these

VIII. Read the given extract to attempt the questions that follow:

The scientist was always quick-tempered; now he became furious. "You don't understand who or what I am!" he shouted. "Very well — I'll show you."

Suddenly he threw off bandages, whiskers, spectacles, and even nose. It took him only a minute to do this. The horrified people in the bar found themselves staring at a headless man.

(Footprints Without Feet)

Q. 46 ..... was horrifying for the people at the inn.

A. Seeing a headless man
B. Seeing a naked man
C. Seeing a wizard
D. Seeing the stranger

Q. 47 What was the need for the scientist to become furious?

A. He was questioned by Mrs. Hall.
B. He was asked to pay his bills.
C. He was not left alone.
D. He wanted a silent atmosphere.

Q. 48 Select the option listing Griffins behavior in a fury, as revealed in the extract.

(1) Stripped himself
(2) Threw a tantrum
(3) Showed that he was headless
(4) Screamed
(5) Threw off his whiskers

A. (1) and (2)
B. Only (3)
C. (3) and (5)
D. (2) and (3)

Q. 49 Select the most appropriate option based on (1) and (2).

(1) Griffin threw off bandages, whiskers, spectacles, and even nose.
(2) "You don't understand who or what I am!"

A. (2) is true and (1) is false.
B. (2) is the result for (1).
C. (2) is the cause for (1).
D. (2) is false and (1) is true.

Q. 50 The word 'quick-tempered' suggests that Griffin was .....

A. cordial
B. irritated
C. appealing
D. relaxed

IX. Attempt the following.

Q. 51 The postman went to the boss with Lencho's first letter to God, ...

A. in confused state.
B. laughing heartily
C. in a witty way
D. sobbing badly

Q. 52 In the poem *Fire and Ice*, which phrase describes that lust and endless desires are increasing in the world?

A. But if it had to perish twice.

B. Some say in ice.

C. I hold with those who favour fire.

D. Some say the world will end in fire.

Q. 53 The seagull got exhausted because ..... .

A. he was crying profoundly.

B. he was angry.

C. he had a strange exercise.

D. he was confused.

Q. 54 Maddie feel for Wanda but didn't ever stand for her as she .....

A. hated Wanda's appearance.

B. didn't have the courage.

C. didn't have the intent.

D. hated Wanda's name.

Q. 55 In the poem *Dust of Snow*, which phrase suggests the author was having a bad day?

A. *The way a crow*

B. *The dust of snow*

C. *A change of mood*

D. *Of a day I had rued*

Q. 56 Mandela felt depths of oppression created ..... .

A. heights of character

B. heights of patience

C. a strong built Man

D. a wealthy Man

Q. 57 In the poem *A Tiger in the Zoo*, which phrase displays the Tiger's helplessness for not being able to show his power?

A. Baring his white fangs, his claws

B. Stalking the length of his cage, Ignoring visitors.

C. Where plump deer pass

D. He stalks in his vivid stripes

Q. 58 Identify the option that aptly reflects Mrs Hall's character in first encounter.

A. Quick tempered

B. Bold

C. Excited

D. Money-minded

Q. 59 Anil lived above a ..... shop named ..... .

A. sweet, Jumna Shop

B. grocery, Jumna Shop

C. electronics, Jamun Shop

D. sweet, Jamun Shop

Q. 60 As Mrs Pumphrey came to take Tricki back, he ..... .

A. ran back to the garden and played with other dogs.

B. jumped to Mr Herriot and would not leave him.

C. took off in a tremendous leap and sailed into Mrs Pumphrey's lap.

D. sat by Mrs Pumphrey, sad and gloomy.

❑❑

Sample Paper 4

English Language & Literature

READING

I. Read the passage given below.

I. On the last Sunday of November, among the ruins of the Phra Prang Sam Yot temple in Lopburi, Thailand, a bountiful banquet awaits the guests of honour, none of whom are humans. This feast is held in celebration of Lopburi's thousands of macaques, thought to bring good luck to the area and its people.

II. Located 93 miles away from Bangkok, archaeological evidence confirms that Lopburi has been continuously inhabited for at least 3,000 years—this makes it one of the oldest and most historic cities in Thailand. Due to a millennia-worth of human habitation, the city boasts countless ancient sites dating from a variety of civilisations and dynasties.

III. From what began in 1989 by hotelier Yongyuth Kitwattananusont, the Monkey Buffet Festival was launched with the help of the Tourism Authority of Thailand. Over the years, the festival has expanded to include a large number of primates. In turn, it has seen an increase in the number of visitors who attend this unique event.

IV. In the week leading up to the festival, locals pass out "invitations" to the monkeys with cashews attached to them as a small incentive. But, Lopburi's residents don't stop there when it comes to rolling out the red carpet for their furry neighbours.

V. The Monkey Buffet Festival kicks off with an opening ceremony that includes performances by dancers in monkey costumes. When the monkeys arrive, hosts remove sheets from the banquet tables, revealing decorative spreads of vibrantly hued fruits and vegetables. The macaques jump across tables and climb towering pyramids of watermelon, durian, lettuce, pineapple and more, indulging in the nearly two tons of offerings.

VI. Respect for monkeys traces back at least 2,000 years to the epic tale of Rama, a divine prince, and his struggle to rescue his wife, Sita, from the clutches of a demon lord. According to the tale, the monkey king Hanuman and his army helped rescue Sita. Since that time, monkeys have been appreciated as a sign of good luck and prosperity. Lopburi's annual buffet is one way people mark their appreciation.

(Source: www. ripleys.com)

Based on your understanding of the passage answer <u>any eight</u> out of the ten questions by choosing the correct option.

Q. 1 The monkey buffest festival is celebrated to:

A. calm down the macaques.

B. pet the macaques.

C. mark good luck to the people through monkeys.

D. conserve the macaques.

Q. 2 Select the option that suitably completes the dialogue with reference to paragraph II.

Joe: Lopburi's tradition of annual monkey feast is both weird and fascinating! I wonder if the city has anything else to offer.

Noel: Being one of the oldest cities in Thailand, Lopburi .....

A. shows an immense respect to the macaques.

B. throws a lavish banquet solely for the primates.

C. is inhabited by people who are immensely proud of their culture.

D. has been the site of ancient civilizations and dynasties.

Q. 3 Choose the option that best conveys the message in –*'rolling out the red carpet.'*

A. Preparing for an award ceremony.

B. Preparing for a religious sacrifice.

C. Welcoming the guests with full fervor.

D. Draping the venue in red fabrics.

Q. 4 The traditional monkey buffet festival holds relevance from:

A. a 2000-year-old epic tale of Lord Rama

B. the episode when Rama rescued Sita with the help of King Hanuman

C. the episode when King Hanuman had rescued Sita from the demon God

D. the episode of offering food to the monkey in epic tales

Q. 5 Select the option with the underlined words that can suitably replace *indulging* (paragraph V).

A. We saw the lions <u>feasting upon</u> their prey during our safari tour.

B. There have been many crimes <u>involving</u> animal poaching for past few years.

C. It was so <u>satisfying</u> to see justice finally being served.

D. He thinks his jokes are not offensive when it is <u>far from</u> the truth.

Q. 6 Anthropomorphism is a type of personification that gives human characteristics to non-humans or objects, especially animals.

From the options given below, select an anthropomorphism that appears in the para IV.

A. Lopburi's residents

B. furry neighbours

C. locals

D. monkeys

Q. 7 Choose the option that CORRECTLY states the two aspects related to appreciation in the passage.

(1) Appreciation of humans by animals with a festival.

(2) Appreciation of animals by inviting them to a feast.

(3) Appreciation of primitive humans by the modern humans.

(4) Appreciating the macaques through a feast to bring good luck and fortune.

(5) Appreciation of the macaques by giving them bananas.

A. (1) and (4)

B. (2) and (3)

C. (2) and (4)

D. (3) and (5)

Q. 8 The Monkey Buffet Festival owes its commencement to:

A. the locals

B. the earlier kings

C. Hotelier Yongyuth Kitwattananusont

D. the monkey tamers

Q. 9 The residents of Lopburi make the buffet special by:

A. arranging the food in pyramids
B. arranging the food in a decorative spread
C. attaching cashew to the invitation
D. both (A) and (B)

Q. 10 Choose the option that lists the quote best expressing the central idea of the passage.

(1) "Appreciation is the highest form of prayer, for it acknowledges the presence of good wherever you shine the light of your thankful thoughts." —*Alan Cohen*

(2) "Be thankful for what you have and you'll end up having more." —*Oprah Winfrey*

(3) "You won't be happy with more until you're happy with what you've got." —*Viki King*

(4) "We should all be thankful for those people who rekindle the inner spirit." —*Albert Schweitzer*

A. option (1)
B. option (2)
C. option (3)
D. option (4)

II. Read the passage given below.

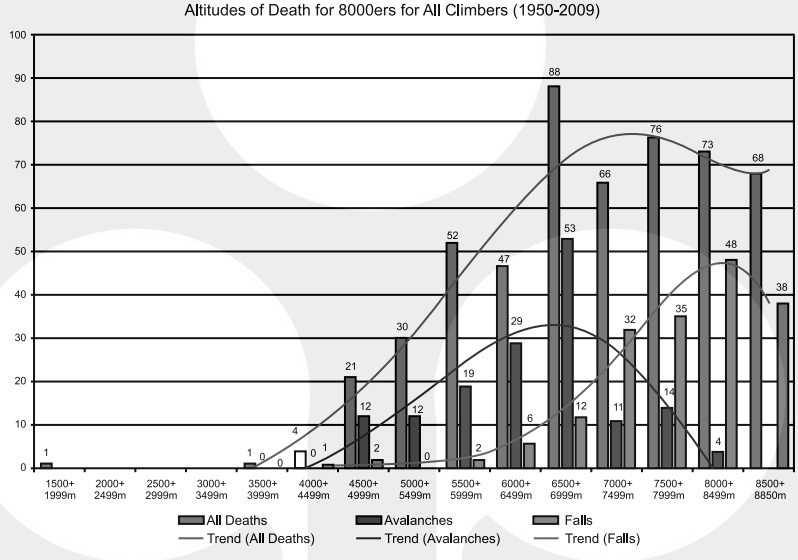


Chart D-15: Altitudes of death for all 8000ers from 1950-2009

I. High-altitude climbing is still a very dangerous task in spite of the availability of oxygen masks and other protective equipment, which modern climbers take with them. These, of course, are indispensable accessories of climbing, but more important than these is the stamina of the climber, which ultimately determines the success of his attempt. Throughout his journey, death is his constant companion, which he can keep at a distance only with his superb presence of mind.

II. He has to tread every inch of the ground with utmost care, for a false step may not only strike him a fatal blow, but also bring disaster to the whole expedition. That is why all expeditions invariably take with them local guides who are experienced climbers and who have a thorough knowledge of the nature of the terrain. Moreover, a huge amount of capital is needed for financing these expeditions, and this is generally provided by governments or rich private organisations.

III. The primary object of a mountaineering expedition is to get to the top of a high mountain, which, in the past has withstood all attempts to conquer it. But it should not be presumed that the expedition is a complete failure if it does not reach its destination. Sometimes operations

are temporarily suspended because of bad weather, loss of some valuable equipment or the sudden death of a very important member of the party.

IV. Every big expedition takes with it men who are interested in botany, biology, geology and various other branches of science, and these men carry with them equipment for recording their observations concerning the weather, the terrain, and different forms of life in higher altitudes. Other scientists, explorers and expeditionists utilise the fruits of their observations. Thus, every unsuccessful expedition contributes to the success of later expeditions.

V. The British Expedition led by Colonel Hunt would have found their way to Everest much more difficult had not earlier expeditions armed them with useful knowledge about the death-dealing weather which they had to encounter in the vicinity of the summit.

VI. To ordinary people, mountaineering need not be a fearful journey in the land of snowstorms, where the brave adventurer is always face to face with death. They can scale less ambitious heights, rest their weary limbs under a quiet shelter and feast their eyes in the distant landscape. In the company of friends they can enjoy an outing near a waterfall or cross into the next valley with haversacks full of provisions dangling from their shoulders. All those who can afford to go to hill station should seek this innocent pleasure, for it can be had without any risk to life or limb. (Source: The Atlantic)

Based on your understanding of the passage answer <u>any six</u> out of the eight questions by choosing the correct option.

Q. 11 The purpose of carrying equipment for recording observations during expeditions is to ..... Choose the correct option.

A. make sure people don't get bored on top of the mountain.

B. make documentaries and upload them on the internet.

C. learn more about the plant diversity of that region.

D. ensure that the observations can prove useful for future expeditions.

Q. 12 Choose the option that lists the CORRECT answers for the following:

(1) These people had found their way to the Everest but not much before learning in the earlier expeditions with the death-dealing weather. Who were they?

(2) Some people utilize their observations for their future expeditions and they are a group of people. Who are they?

A. (1) is a lot of travellers and (2) is a group of women achievers.

B. (1) is a group of scientists and (2) is .a group of students.

C. (1) is the British expedition and (2) is a group of explorers.

D. (1) is a group of workers and (2) is a few local guides.

Q. 13 Select the option that gives the correct meaning of the following statement.

"Moreover, a huge amount of capital is needed for financing these expeditions."

A. The expeditions are a huge investment for tourism.

B. The expeditions are an expensive affair.

C. The expeditions can only be held in countries with developed capital cities.

D. The expeditions require a deep understanding of finance.

Q. 14 Which of the following is one of the reasons for the temporary suspension of mountaineering expeditions?

A. bad weather

B. bad company

C. bad coach

D. loss of money

Q. 15 Select the option listing what the given sentence refers to.

'Thus, every unsuccessful expedition contributes to the success of later expeditions.'

(1) mistakes from present expedition can be a learning lesson for future.

(2) halting an unsuccessful expedition is vital.

(3) observations and records from past expeditions can contribute to the success of later ones.

(4) later expeditions avoid knowing about past ones not to get demotivated.

(5) it is vital to list all the findings so that it can prove useful for others even if it wasn't for you.

A. (1), (2) and (3)
B. (1), (3) and (4)
C. (1), (3) and (5)
D. (2), (3) and (5)

Q. 16 Which of the following should be present in a person for going for a mountaineering expedition?

A. love for mountains
B. love for nature
C. love for the environment
D. all of these

Q. 17 This passage lists an example proving that High-altitude climbing ..... .

Select the correct option.

A. is a very dangerous yet rewarding experience.
B. is a very dangerous and life-threatening sport.
C. is not something that should be encouraged to everyone.
D. is better left for local guides.

Q. 18 Choose the correct option to answer the following:

According to paragraph I, *'Throughout his journey, death is his constant companion.'*

This is so because

A. death is inevitable in adventure.
B. there is always the risk of lethal accidents.
C. expeditions expect you to sacrifice yourself for the sake of it.
D. accidents are not that common and it are exaggerated.

GRAMMAR and WRITING

GRAMMAR

III. Answer <u>any five</u> out of six questions by selecting the most appropriate option for each.

Q. 19 When I last visited Lucknow, I remember clearly that there ..... be a house here.

A. was
B. dare
C. used to
D. could be

Q. 20 No other island is ..... Australia.

A. as big as
B. bigger
C. biggest
D. more big

Q. 21 Neither my mother nor my father ..... available to attend the parents-teacher meeting.

A. were being
B. were
C. is
D. have been

Q. 22 Which option displays the correct change of the following to reported speech?

The coach said, "Bravo! You have done well".

A. The coach said that you have done well.

B. The coach applauded him saying that he had done well.

C. The coach told him you had done well.

D. The coach exclaimed that he has done well.

Q. 23 Which option displays the correct change of the following to reported speech?

The lady said, "I am not very happy to be here today".

A. The lady told that she was not very happy to be here today.

B. The lady said that she is not very happy to be here today.

C. The lady said that she was not very happy to be there that day.

D. The lady said that she was not very happy to be there today.

Q. 24 When he joined the army, Col. Anthony ..... already ..... the team since a decade.

A. had, lead

B. have, been leading

C. will, been leading

D. had, been leading

WRITING

IV. Answer <u>any five</u> out of six questions given, with reference to the context below.

You happened to take part in a blood donation camp organized by Health Club of your school in Lucknow. You are surprised to find that most of the people there have no awareness of importance of the noble cause of blood donation. Write a letter to the editor of a newspaper expressing your concern and encouraging youngsters to organize such campaigns.

Q. 25 Which of the following should be a part of the letter?

A. Name of your school

B. Name of the city's mayor

C. Benefits of blood donation

D. Both A and C

Q. 26 How do you think that letter is most appropriately addressed?

A. Dear Editor

B. To, The Editor

C. To, Dear Editor

D. Editor Sir

Q. 27 Choose the appropriate subject for the letter.

A. Creating awareness for blood donation.

B. Benefits of blood donation.

C. Need to encourage blood donation and health camps in the city.

D. Responsibilities of youngsters towards blood donation.

Q. 28 Which of the following group can be exempted from the letter?

A.	History of blood donation, process of blood formation, government subsidies	B.	Simple ways to organize blood donation camp, benefits of the act, encouraging youngsters' active participation
C.	Blood donation at community level, health benefits, similar campaigns	D.	Assistance from several health groups, society awareness, healthy habits

Q. 29 Select the option that justifies the choice of introducing this letter.

(1) *Through the esteemed column of your newspaper, I would like to draw the attention of the residents of Lucknow towards a noble act.*

(2) *Being a responsible citizen of this country, I believe the initiative that I would like to highlight through this letter shall help the masses.*

A. Yes to (1) because of the polite tone.

B. Yes to (2) because of the formal and hopeful tone.

C. No to (2) because of lengthy and informal tone.

D. Yes to both (1) and (2).

Q. 30 Complete the conclusion of the letter by choosing the appropriate option.

To conclude, I would like to appeal to the youngsters that they are the future of the country and shall play (i) ..... . The significant responsibility of its health, happiness and progress lies on their (ii) ..... . They should therefore carry out such initiatives for the benefits of one and all.

A. (i) an important role in their individual health (ii) hardworking hands

B. (i) animportant role in science and technology (ii) strong brains

C. (i) an important role in its security (ii) marksheet and academics

D. (i) a pivotal role in its development (ii) strong shoulders

LITERATURE

This section has sub-sections-V, VI, VII, VIII & IX. There are a total of 30 questions in this section. Attempt any 26 questions from the sub-sections V to IX.

V. Read the given extract to attempt the questions that follow:

It was during the meal that, just as Lencho had predicted, big drops of rain began to fall. In the north-east huge mountains of clouds could be seen approaching. The air was fresh and sweet. The man went out for no other reason than to have the pleasure of feeling the rain on his body, and when he returned he exclaimed, ''these aren't raindrops falling from the sky, they are new coins. The big drops are ten cent pieces and the little ones are fives.''

(A Letter to God)

Q. 31 When exactly did it start raining?

A. When Lencho and his family were sleeping.

B. When Lencho and his family were having supper.

C. When Lencho and his children were in the field.

D. When Lencho's wife was preparing supper.

Q. 32 How was the atmosphere referred to in the above extract?

A. New and savoury B. Dull and sweet

C. Fresh and sweet D. Fresh and savoury

Q. 33 Lencho compares ..... to raindrops.

A. Flakes of snow B. coins

C. hailstones D. satisfaction

Q. 34 When Lencho said *"These aren't raindrops falling from the sky"*, He meant that they are.....

A. flakes of snow.

B. money.

C. hailstones.

D. source of enjoyment for him.

Q. 35 Select the suitable word to complete the following:

strong: hefty: foretell:

A. exclaimed

B. predicted

C. engulfed

D. enclosed

VI. Read the given extract to attempt the questions that follow.

Usually, Wanda sat in the seat next to the last seat in the last row in Room Thirteen. She sat in the corner of the room where the rough boys who did not make good marks sat, the corner of the room where there was most scuffling of feet, most roars of laughter when anything funny was said, and most mud and dirt on the floor. Wanda did not sit there because she was rough and noisy. On the contrary, she was very quiet and rarely said anything at all. And nobody had ever heard her laugh out loud. Sometimes she twisted her mouth into a crooked sort of smile, but that was all.

(The Hundred Dresses I)

Q. 36 What character of Wanda does the narrator want to depict?

'On the contrary, she was very quiet and rarely said anything at all. And nobody had ever heard her laugh out loud'.

(1) Wanda wanted to have no friends

(2) Wanda was a proud girl.

(3) Wanda was rough and noisy.

(4) Wanda was calm and serene.

(5) Wanda was an impaired person.

Choose the correct option from the following.

A. (1) and (5)

B. (1), (3) and (4)

C. Only 4

D. Only 5

Q. 37 Select the most appropriate option based on (1) and (2).

(1) Nobody had ever heard her laugh out loud.

(2) Wanda was very noisy and rough.

A. (2) is true and (1) is false.

B. (2) is the result for (1).

C. (2) is the cause for (1).

D. (2) is false and (1) is true

Q. 38 Why would Wanda sit in the corner of the room?

A. She was mischievous.

B. Everyone made fun of her.

C. She was very rich.

D. She was shaggy.

Q. 39 Select the option that displays an example of a *crooked smile*.

The art gallery was full of paintings such as.....

A.	A beautiful girl with a crooked nose dancing in the rain.		B.	A beggar with an uneven smile which was bigger on one side that the other counting money.
C.	An artistic view of the trekkers climbing a peak.		D.	A differently abled man painting with his toes.

Q. 40 What can we conclude about Wanda from the following lines?

Wanda did not sit there because she was rough and noisy. On the contrary, she was very quiet and rarely said anything at all.

A. She is good for nothing.

B. She does not want to be noticed.

C. She is impaired.

D. She is a prankster.

VII. Read the given extract to attempt the questions that follow:

He should be snarling around houses
At the jungle's edge,
Baring his white fangs, his claws,
Terrorising the village!
But he's locked in a concrete cell
His strength behind bars,
Stalking the length of his cage,
Ignoring visitors
(A Tiger in the Zoo)

Q. 41 What does the poet expect a wild free tiger to do?

A. Snarl and sneak down into houses.

B. Snarl around houses.

C. Snarl and enter into the village houses.

D. Snarl atop village houses.

Q. 42 What does the poet speak about the caged tiger if given freedom, according to the extract?

(1) The tiger would be fending for himself.

(2) Actively roaming around.

(3) It would be showing off its strength.

(4) It would be dependent.

(5) It would not be harmful.

A. (1), (2) and (3)

B. (2) and (4)

C. Only (1)

D. (3) and (5)

Q. 43 What does the poet mean by 'in a concrete cell'?

This means that the tiger is:

A. resigned to the cell

B. he is strong

C. he is defensive

D. he is dependent.

Q. 44 What would the tiger do to the villagers on seeing them?

A. Terrorize the villagers.
B. Snarl at the villagers.
C. Eat up the villagers.
D. Eat up the cattle.

Q. 45 What does the poet express in this poem?

A. The carefree life of the animals in a zoo.
B. The caged happy life of the animals in a zoo.
C. The miserable life of the animals in a zoo.
D. The healthy life of the animals in a zoo.

VIII. Read the given extract to attempt the questions that follow:

Mrs Pumphrey hastened to explain, "He was so listless, Mr Herriot. He seemed to have no energy. I thought he must be suffering from malnutrition, so I have been giving him some little extras between meals to build him up, some malt and cod-liver oil and a bowl of Horlicks at night to make him sleep — nothing much really." "And did you cut down on the sweet things as I told you?" "Oh, I did for a bit, but he seemed to be so weak I had to relent. He does love cream cakes and chocolates so. I can't bear to refuse him.

(A Triumph of Surgery)

Q. 46 Mr. Harriot asked Mrs. Pumphrey to cut down on ..... regarding Tricki's diet.

A. malt
B. cod-liver oil
C. milk
D. sweet things

Q. 47 What was Mrs. Pumphrey trying to explain to Mr. Harriot?

A. She was trying to explain her health issues with Mr. Harriot.
B. She was trying to explain the diet of her pet dog Tricki, to Mr. Harriot.
C. She was trying to discuss the health condition of her pet dog Tricki, to Mr. Harriot.
D. She was telling Mr. Harriot of how she was controlling her pet dog Tricki's diet.

Q. 48 Select the option listing Mrs. Pumphrey's characteristics, as revealed in the extract.

(1) compassionate
(2) stern
(3) strict
(4) empathetic
(5) uncaring

A. 2 and 3
B. Only 5
C. 1 and 4
D. 1 and 3

Q. 49 Select the most appropriate option based on (1) and (2).

(1) He was so listless, he seemed to have extra energy.
(2) I have been giving him some little extras between meals to build him up, some malt and cod-liver oil and a bowl of Horlicks at night to make him sleep.

A. (2) is true and (1) is false.
B. (2) is the result for (1).
C. (2) is the cause for (1).
D. (2) is false and (1) is true.

Q. 50 The phrase *I did for a bit* suggests that Mrs. Pumphrey tried to.....

A. cut down on it for some time.
B. continue with it for some time.
C. ignore it for some time.
D. stop it for some time.

IX. Attempt the following.

Q. 51 From Lencho's house, one could see the river and the .....

A. field of ripe wheat with flowers.

B. field of ripe corn with flowers.

C. field of blooming sunflowers.

D. field of rice and grains.

Q. 52 In the poem 'The Ball Poem', what happens to the boy as he loses his ball?

A. Becomes sad and gloomy.

B. Gets excited as he'll get a new ball.

C. Starts looking for it with desperate eyes.

D. Took his way to the pond to get back the ball.

Q. 53 The ..... Seagull gave the young Seagull a piece of .....

A. mother, meat

B. brother, meat

C. mother, fish

D. father, bread

Q. 54 How is Wanda seen as different by the other girls?

A. Because of her nature

B. Because of her tasks

C. Because of her origin and dress

D. None of the Above

Q. 55 With reference to the poem *Dust of Snow*, complete the phrase with a suitable choice:

The way a .....

..... down on me

A. crow, threw

B. parrot, threw

C. crow, shook

D. eagle, shook

Q. 56 Mandela refers to the oppressor also as a prisoner because:

He is a .....

A. Prisoner of Hatred, locked behind bars of prejudice and narrow mindedness.

B. Prisoner of Greed, locked behind bars of prejudice and fickle mindedness.

C. Prisoner of Anger, locked behind bars of jealousy and animosity

D. Prisoner of Envy, locked behind bars of selfishness and narrow mindedness

Q. 57 In the poem *A Tiger in the Zoo*, the tiger raised his head at night to look onto:

A. the patrolling cars.

B. the clouds.

C. the stars.

D. the other animals of the zoo.

Q. 58 After setting the landlord's house on fire, Griffin became:

A. homeless wanderer clad in royal clothes.

B. world's 1st scientist having performed the rarest experiment with success.

C. homeless invisible wanderer, without clothes, without money.

D. the richest scientist with all luxuries of the world.

Q. 59 Starting with the introduction, Anil further discussed which topic with Hari Singh?

A. The skilled cricketers who were going to be the part of the T20 tournament.

B. The workers working for him at the Jumna Sweet Shop

C. The students whom he had taught and how they turned to be a big name today.

D. The well-oiled wrestlers who were grunting, lifting and throwing each other about.

Q. 60 Mrs. Pumphrey called Mr. Herriot to tell him about Tricki's illness. What ailments did she mention?

A. Tricki would eat nothing, refused even his favourite dishes and had bouts of vomiting.

B. Tricki would eat nothing but his favourite dishes and sleep all day.

C. Tricki refused to eat his favourite dishes and played with other dogs.

D. Tricki had bouts of vomiting but still kept eating without break.

❑❑

Sample Paper 5

English Language & Literature

READING

I. Read the passage given below.

I. An ecosystem is a community of organisms that live and interact within a particular environment. In an aquatic ecosystem, that environment is water and all the system's plants and animals live either in or on that water. The specific setting and type of water, such as a freshwater lake or saltwater marsh, determines which animals and plants live there. Marine, or ocean, systems cover about 70 per cent of the Earth's surface and are identified by the presence of dissolved salts in the water. The level of salinity averages about 35 parts per thousand g of water, but it can vary in response to climate or a nearby source of freshwater. Marine organisms must adapt to either a constantly changing or stable level of salt content and cannot move successfully from one to the other. Saltwater ecosystems range from the abundant life of coastal areas to the nearly barren ocean bottom. In marine habitats, the food chain begins with plankton, micro-organisms that require sunlight for energy and growth, so systems closest to the surface or in relatively shallow water support more life. These include estuaries, salt marshes, coral reefs and other tropical habitats, and intertidal areas such as lagoons and kelp beds.

II. Animal life in marine ecosystems ranges from microscopic zooplankton through fish of all sizes to marine mammals, including seals, whales and manatees. Freshwater – water that is either drinkable or has little or no salt content – supports its own aquatic ecosystems. These include rivers and streams, lakes and ponds, wetlands and even groundwater. Each of these systems is unique and even within categories, any specific habitat is affected by altitude/temperature and humidity. For instance, a plant native to a warm shallow lake in the tropics could not survive on the steep banks of a cold, fast-moving mountain stream. Freshwater ecosystems provide homes for a wide variety of animal life including insects, amphibians and fish. One estimate of fish species puts the number that lives in freshwater at 40 per cent of the Earth's total. Worms, molluscs, algae and bacteria all live in freshwater systems, as do innumerable varieties of plants. In addition, animals such as birds, otters and bears use freshwater ecosystems as a food source. (Source: sciencing.com)

Based on your understanding of the passage answer <u>any eight</u> out of the ten questions by choosing the correct option.

Q. 1 70 per cent of the Earth's surface:

A. is covered in oceans.
B. are marine bodies only.
C. is solid landmass.
D. forms the entire aquatic system.

Q. 2 Select the option that suitably completes the dialogue with reference to paragraph I.

Ojas: Shallow water systems like coral reefs are so colourful and full of life when compared to deep sea water which is mostly dark.

Tejas: This is mostly because of the .....

A. sunlight giving colour to the coral reefs.
B. optimal sunlight reaching to planktons.
C. lack of primary food source in reefs.
D. dead animals lying in the deep sea.

Q. 3 Choose the option that best conveys the message in –

'Freshwater – water that is either drinkable or has little or no salt content.'

A. Freshwater is potable and briny.
B. Freshwater is fresher compared to sea.
C. Freshwater is the only aquatic source of life.
D. Freshwater is potable and not briny.

Q. 4 The factor that doesn't affect the freshwater habitats is:

A. altitude
B. salt content
C. humidity
D. temperature

Q. 5 Select the option with the underlined words that can suitably replace *marsh* (paragraph I).

A. These boiled potatoes have become a <u>mush</u> due to rough handling.
B. The water is clogging in the drains and not flowing to the <u>gutter</u>.
C. It has been raining heavily for days now and the nearby field has become a <u>swamp</u>.
D. The soldiers <u>marched</u> even through flowing streams.

Q. 6 Imagery is a literary device that refers to the use of figurative language to evoke a sensory experience or create a picture with words for a reader.

From the options given below, select an imagery that appears in the para I.

A. nearly barren ocean bottom
B. coastal areas
C. specific setting
D. level of salinity

Q. 7 Choose the option that correctly states the two aspects related to Marine organisms.

(1) Saltwater ecosystems range from the abundant life of coastal areas to the nearly barren ocean bottom.
(2) Marine organisms must adapt to either a constantly changing or stable level of salt content and cannot move successfully from one to the other.
(3) Each of these systems is unique and even within categories; any specific habitat is affected by altitude/ temperature and humidity.
(4) The level of salinity averages about 35 parts per thousand g of water, but it can vary in response to climate or a nearby source of freshwater.
(5) Animal life in marine ecosystems ranges from microscopic zooplankton through fish of all sizes to marine mammals, including seals, whales and manatees.
(6) These include estuaries, salt marshes, coral reefs and other tropical habitats, and intertidal areas such as lagoons and kelp beds.

A. (1) and (4)
B. (2) and (3)
C. (2) and (5)
D. (3) and (5)

Q. 8 Micro-organisms in the saltwater ecosystem grow in shallow water or near the surface because:

A. the content of salt is low
B. they get sunlight to grow
C. they cannot breathe in deep water
D. both (A) and (B)

Q. 9 What is the average level of salinity of water?

A. 55 parts per thousand g
B. 75 parts per thousand g
C. 45 parts per thousand g
D. 35 parts per thousand g

Q. 10 Choose the option that lists the quote best expressing the central idea of the passage.

(1) "There is a deep interconnectedness of all life on earth, from the tiniest organisms, to the largest ecosystems, and absolutely between each person." — *Bryant McGill*

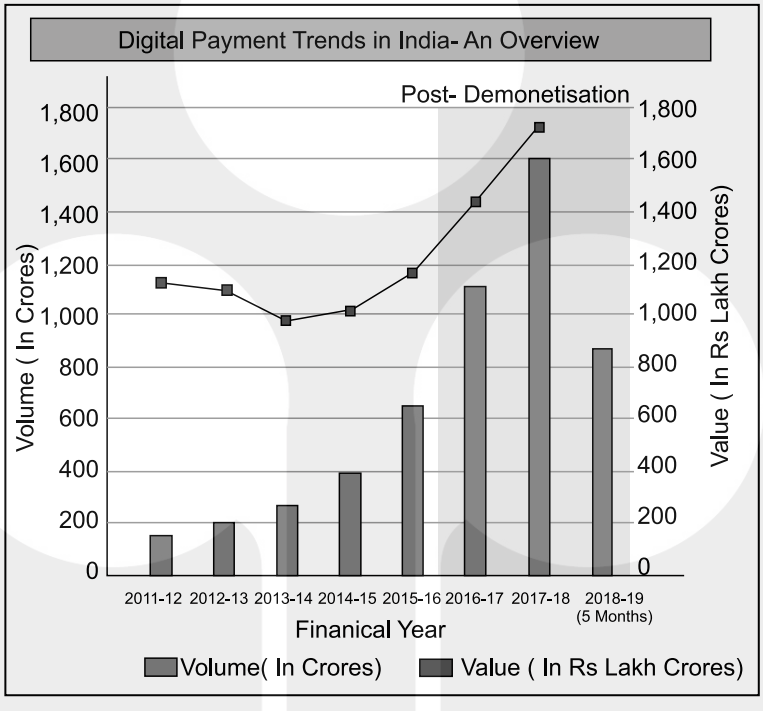
(2) "Where there is a smoke, there is an ecologist." — *Ljupka Cvetanova*

(3) "When we reconnect with nature, we will be restore ourselves." — *Lailah Gifty Akita*

(4) "We can only predict the future ecological changes, by emergence of the past into the present." — *Lailah Gifty Akita*

A. option (1)
B. option (2)
C. option (3)
D. option (4)

II. Read the passage given below.



I. Demonetisation refers to an economic policy where a certain currency unit ceases to be used as a legal tender. It occurs whenever there is a change in the national currency: The existing form or forms of money is pulled from circulation and retired, to be replaced with new notes or coins. Sometimes, a country completely replaces the old currency with new currency.

II. On 8 November, 2016, the Indian government decided to demonetize the 500 and 1000 rupee notes, the two biggest denominations in its currency system. These notes accounted for 86% of the country's circulating cash. With little warning, India's Prime Minister Narendra Modi announced to the citizenry that these notes would be rendered immediately ineffective with immediate effect. People were given time till the end of the year to deposit or exchange them for newly introduced 2000 rupee and 500 rupee notes.

III. The government's goal was to combat India's thriving underground economy on several fronts: eradicate counterfeit currency, fight tax evasion (only 1% of the population pays taxes), eliminate black money accumulated from money laundering and terrorist-financing

activities, and to promote a cashless economy. Individuals and entities with huge sums of black money Acquired from parallel cash systems were forced to take their large denomination notes to a bank, and account for them satisfactorily and submit proof if tax paid. If the owner could not provide proof of making any tax payments on the cash, he possessed a penalty of 200% on the tax due was imposed.

IV. Demonetisation had a severe impact on the gold market. The extraordinary demand for the yellow metal, made a stiff hike in the cost. However, the Government made it mandatory that every buyer had to submit his/her PAN card details for purchases made. Erring jewelers were brought to book.

V. Many Indians switched to alternative payment methods. The biggest gainers were mobile wallet companies that offered easy transactions through a large network of partners. Alibaba-backed Paytm saw a sevenfold increase in overall traffic. Prepaid cash cards were another option that the customers found useful. Other alternatives were mobile payment systems linked to e-commerce businesses like Ola Money, FreeCharge, Flipkart Wallet.

(Source: The true picture)

Based on your understanding of the passage answer <u>any six</u> out of the eight questions by choosing the correct option.

Q. 11 The purpose of this study was to ..... .

Choose the correct option.

A. show the problems faced by people because of demonetization.

B. highlight the usage of online transaction methods during demonetization.

C. diminish the efforts made by companies for smooth transaction techniques.

D. show the effect of hastily made decisions.

Q. 12 Choose the option that lists the correct answers for the following:

(1) An economic policy where a certain currency unit ceases to be used as a legal tender. It occurs whenever there is a change in the national currency. Name the policy.

(2) To eradicate counterfeit currency, fight tax evasion (only 1% of the population pays taxes), eliminate black money accumulated from money laundering and terrorist-financing activities, and to promote a cashless economy. Whose goal was this?

A. (1) is black marketing and (2) is the President's goal.

B. (1) is demonetization and (2) is the Government's goal.

C. (1) is money exchange (2) is the Finance minister's goal.

D. (1) is money laundering and (2) is the Chief minister's goal.

Q. 13 Select the option that gives the correct meaning of the following statement.

'Alibaba-backedPaytm saw a sevenfold increase in overall traffic.'

A. Alibaba backed away from Paytm when the traffic increased.

B. The traffic increase was due to the fact that Paytm was backed by Alibaba.

C. Paytm recorded seven times increase in users when Alibaba backed away.

D. Paytm recorded the number of users to be seven times the usual.

Q. 14 According to the research, demonetisation had a severe impact on the gold market because ..... .

A. high demand of gold led to a crash in its price.

B. high demand for gold also increased its price.

C. everyone was buying gold which reduced its value.

D. gold market was doing better before demonetization.

Q. 15 Select the option listing what the given sentence refers to.

'If the owner could not provide proof of making any tax payments on the cash, he possessed a penalty of 200% on the tax due was imposed.'

(1) The owners were exempted from paying taxes if they could not provide proof.

(2) The penalty was 200% of the tax that was due.

(3) The owners who failed to provide any proofs were liable to penalty.

(4) Tax payments on the cash were done through digital modes.

(5) It was required by the law that the owners provide a proof of tax payments on the cash.

A. (1), (2) and (5)
B. (2), (4) and (5)
C. (2), (3) and (5)
D. (1), (2) and (3)

Q. 16 Which of the following is one of the reasons for demonetisation?

A. change in the parliament
B. change in the government
C. change in the national currency
D. change of the finance minister

Q. 17 Which of the following is completely replaced when demonitisation occurs?

A. old financial rules
B. old finance minister
C. old tax rules
D. old currency

Q. 18 Choose the correct option to answer the following:

According to paragraph II, 'the Indian government decided to demonetize the 500 and 1000 rupee notes, the two biggest denominations in its currency system.'

This is so because

A. these notes accounted for 86% of the country's circulating cash.
B. these notes were outdated in design.
C. these notes were not 86% of the country's circulating cash.
D. the country was not reliant on cash for its economy.

GRAMMAR and WRITING

GRAMMAR

III. Answer <u>any five</u> out of six questions by selecting the most appropriate option for each.

Q. 19 Looking at the sky, I feel it ..... rain tomorrow.

A. might
B. can
C. shall
D. should

Q. 20 Unfortunately, I haven't got ..... time to pick you up.

A. few
B. no
C. much
D. little

Q. 21 At this time tomorrow I ..... in the aircraft.

A. would have been
B. will have been
C. will be flying
D. would have flown

Q. 22 Which option displays the correct change of the following to reported speech?

Thomas said, "Robert shall come as soon as it is possible".

A. Thomas informed that Robert shall come as soon as it is possible.

B. Thomas told that Robert shall come as soon as it is possible.

C. Thomas said that Robert shall come as soon as it is possible.

D. Thomas said that Robert would come as soon as it was possible.

Q. 23 Which option displays the correct change of the following to reported speech?

My mother often says to me, "Honesty is the best policy".

A. My mother often told me that honesty was the best policy.

B. My mother said that honesty was the best policy.

C. My mother taught me that honesty was the best policy.

D. My mother often says to me that honesty is the best policy.

Q. 24 Looking at the leading score of Team Blue, I think they ..... win the match.

A. will B. would

C. will have D. could

WRITING

IV. Answer <u>any five</u> out of six questions given, with reference to the context below.

You are Pritesh, Hotel Manager, Delicious Delight Hotel, Bengaluru, Karnataka. Write a letter to the Sales Manager, Efficient Electronics and Domestic Appliances Ltd., Hyderabad, placing an order for microwaves ovens and geysers that you wish to purchase for the hotel. Also ask for discount permissible on the purchase.

Q. 25 Which of the following need NOT be a part of the letter?

A. Address of your hotel B. Rooms in your hotel

C. Budget of your hotel for the purchase D. Store's address

Q. 26 Which of the following statement(s) would best fit to ask for a discount on the purchase?

A. Being a faithful customer since all these years, we hope to receive a decent discount on the purchase.

B. Kindly offer us a suitable discount as has been a practice all these years.

C. We are looking forward to a long-term business with you and hence expect a discount on the purchase.

D. All of the above

Q. 27 Which option should Pritesh select to ensure a successful deal?

A.	Goods; their quantity and brand, condition of goods, timely delivery and discount	B.	Weather conditions of Bengaluru, monsoon hurdles, electricity unit cost, usage of goods.
C.	Food menu of Delicious Delight, customer ratings, purchase orders and bills	D.	Usage of microwave oven and geysers, food and water supply in Bengaluru, cost of living.

Q. 28 Select the option that correctly mentions the responsibility of the supplier during transportation of goods.

(1) *The damage during transportation is your sole responsibility.*

(2) *We have never been given any opportunity to complain and the goods have always reached as well on time, and in excellent condition as per our specifications. We do expect the same delivery this time as well.*

A. Yes to (1) because of formal and assertive tone.

B. Yes to (2) because of the tone of polite expectation.

C. No to (2) because of certainty of tone.

D. No to (1) because of rude tone.

Q. 29 Pritesh forgot to mention the quantity of goods in his letter. He writes another letter to inform about the same. Help him in completing the same.

However, my (i) ..... for the incomplete information provided in the previous letter. With respect to the same; we would like (ii) ..... the following items as mentioned below

Name of the Items	No. of Items	Brand
Microwaves	20	Nova
Geysers	15	LG

A. (i) mistake (ii) to buy

B. (i) bad (ii) to order

C. (i) sincere apologies (ii) to purchase

D. (i) regrets to the inconvenience caused (ii) to order

Q. 30 Select the option that completes the concluding line appropriately.

We look forward to .....

A. a safe and timely delivery of goods.

B. a prosperous business with you in the future as well.

C. perfectly working appliances

D. a great deal in the future

LITERATURE

This section has sub-sections-V, VI, VII, VIII & IX. There are a total of 30 questions in this section. Attempt any 26 questions from the sub-sections V to IX.

V. Read the given extract to attempt the questions that follow:

Oh well, it doesn't matter. I feel like writing, and I have an even greater need to get all kinds of things off my chest. 'Paper has more patience than people.' I thought of this saying on one of those days when I was feeling a little depressed and was sitting at home with my chin in my hands, bored and listless, wondering whether to stay in or go out. I finally stayed where I was, brooding: Yes, paper does have more patience, and since I'm not planning to let anyone else read this stiff-backed notebook grandly referred to as a 'diary', unless I should ever find a real friend, it probably won't make a bit of difference.

(From the Diary of Anne Frank)

Q. 31 What does Anne relate the 'stiff-backed' to? Choose the correct option.

A. Her tiredness B. Her body

C. Her diary D. Her friends

Q. 32 The adjective stiff-backed notebook refers that.....

A. her diary was durable

B. her diary was smooth

C. her diary was paper covered

D. her diary was hard bound

Q. 33 Anne Frank compares the value of paper to people in terms of .....

A. feelings

B. patience

C. stubbornness

D. pride

Q. 34 When Anne Frank says, *''I thought of this saying on one of those days when I was feeling a little depressed and was sitting at home with my chin in my hands, bored and listless, wondering whether to stay in or go out.''* She refers that .....

A. Pen is mightier than a sword.

B. Paper is more patient than man.

C. Paper has more patience than people.

D. Pen has more patience than man.

Q. 35 Select the suitable word from the extract to complete the following:

interested: bored: : cheerful : .

A. listless

B. depressed

C. patience

D. wondering

VI. Read the given extract to attempt the questions that follow:

His father was preening the feathers on his white back. Only his mother was looking at him. She was standing on a little high hump on the plateau, her white breast thrust forward. Now and again, she tore at a piece of fish that lay at her feet and then scrapped each side of her beak on the rock. The sight of the food maddened him. How he loved to tear food that way, scrapping his beak now and again to whet it.

(Two Stories about Flying—His First Flight)

Q. 36 What was the young seagull's father doing?

(1) Shouting at him.

(2) Cheering his brothers and sister.

(3) Preening the feathers on his white back.

(4) Tearing at a piece of fish.

(5) Looking at Seagull.

Choose the correct option from the following:

A. (1) and (5)

B. Only (3)

C. (1), (4) and (5)

D. (4) and (3)

Q. 37 Select the most appropriate option based on (1) and (2).

(1) The sight of the food maddened him.

(2) How he loved to tear food that way, scrapping his beak now and again to whet it.

A. (2) is true and (1) is false.

B. (2) is the result for (1).

C. (2) is the cause for (1).

D. (2) is false and (1) is true

Q. 38 What do you feel about the attitude of the young seagull's parents towards him?

A. They pampered him.

B. They wanted to make him independent.

C. Caring and encouraging.

D. Selfish and proud.

Q. 39 Select the option which displays an example of *'whet'* used in the extract?

A.	Please, my dear fellow, will you sharpen my saber for me?	B.	The regiment fluttered like a bird preening its plumage and became motionless.
C.	She scrapped the pot out and rinsed it with the last of the coffee.	D.	Maddened with pain, the wounded bull ran at them.

Q. 40 Why was the mother seagull tearing a piece of fish that lay at her feet and then scrapping each side of her beak on the rock?

A. to tease the young seagull.

B. to tempt the young seagull.

C. to encourage the young seagull to fly.

D. to make known that she loves him.

VII. Read the given extract to attempt the questions that follow:

A dime, another ball, is worthless.
Now He senses first responsibility
In a world of possessions. People will take
Balls, balls will be lost always, little boy.
And no one buys a ball back. Money is external.
(The Ball Poem)

Q. 41 What does the poet express in the line *'A dime, another ball, is worthless'*?

A. Nothing can replace memories

B. You can buy a new ball

C. Buying a new ball is worthless

D. No need to grieve

Q. 42 What does every man need to know according to the extract?

(1) To stand up to the loss and stay strong.

(2) Accept and let go.

(3) The past is gone and can never come back.

(4) Losses in life can be prevented with care.

(5) Loss helps one to grow and bear responsibility.

A. (1), (2), (3), (4)
B. (2), (3), (4), (5)
C. (1), (2), (3), (5)
D. (1), (2), (4), (5)

Q. 43 What does the poet mean by epistemology of loss of ball according to the extract?

A. The boy is visualizing the reason of loss.
B. The boy is studying the negative impact of loss.
C. The boy is not ready to cope with the loss.
D. The boy is realizing that life can continue despite losses.

Q. 44 Name the literary device used in *"And no one buys a ball back."*

A. Metaphor
B. Simile
C. Anaphora
D. Alliteration

Q. 45 What does 'in a world of possession' signify?

A. Ownership
B. Resigning
C. Surrendering
D. Renouncing

VIII. Read the given extract to attempt the questions that follow:

This time he decided to try the stock of a theatrical company in the hope of finding not only clothes but also something that would hide the empty space above his shoulders. Shivering with cold he hurried to Drury Lane, the centre of the theatre world. He soon found a suitable shop. He made his way, invisible, upstairs and came out a little later wearing bandages round his forehead, dark glasses, false nose, big bushy side-whiskers, and a large hat. To escape without being seen, he callously attacked the shopkeeper from behind, after which he robbed him of all the money he could find.

(Footprints Without Feet)

Q. 46 Who is the narrator referring to as 'he' in the above extract?

A. Mr. Jaffers
B. Mr. Hall
C. Mr. Griffin
D. The shopkeeper

Q. 47 How did Mr. Griffin deal with the shopkeeper?

A. Sympathetically
B. Callously
C. Kindly
D. Compassionately

Q. 48 Select the option listing the motives of Griffin, as revealed in the extract.

(1) To try the stock of a bank
(2) To try the stock of a grocery store
(3) To try the stock of a theatrical company
(4) To try the stock of a mall

A. (2) and (3)
B. Only (3)
C. (1), (2) and (4)
D. Only (2)

Q. 49 Select the most appropriate option based on (1) and (2).

(1) To escape without being seen.
(2) Griffin callously attacked the shopkeeper.

A. (2) is true and (1) is false.
B. (2) is the result for (1).
C. (2) is the cause for (1).
D. (2) is false and (1) is true.

Q. 50 The phrase *without being seen* suggests that Griffin wanted to remain.....

A. Unnoticed
B. Noticed
C. Attract
D. Noted

IX. Attempt the following.

Q. 51 Why did Lencho think all through the night, only of his one hope: the help of God?

A. He knew the postmaster was a nice man and he would help him.
B. He had seen evidence before, where God had sent money to people.
C. All his relatives were as poor as he was.
D. He was instructed, God's eyes can see everything even deep within one's conscious.

Q. 52 With reference to the poem *Fire and Ice*, which option suggests the poet's viewpoint?

A. Both vices are growing and either of them can destroy mankind, Fire or Ice
B. Fire is not enough to destroy everything as it is growing slower.
C. Ice is enough to destroy everything as it is growing faster.
D. Mankind cannot be destroyed.

Q. 53 The pilot called the ..... control to know ..... .

A. London, the way to the next airport.
B. Paris, the direction of the route.
C. London, the details about landing.
D. Paris, air traffic situation.

Q. 54 Maddie finally decided that in future, she would:

A. someday visit Wanda
B. break her friendship with Peggy
C. stop others from bullying
D. leave her school and join Wanda's school.

Q. 55 Which option correctly replaces the underlined phrase in the given line from *The Ball Poem*?

The <u>epistemology of loss</u>, how to stand up

A. the study to learn the nature of loss
B. the study to learn the nature of grief
C. the understanding of the nature of pain
D. the understanding of the nature of suffering

Q. 56 With what does Mandela compare the people of his country?

A. Greatest wealth, purest and most expensive gold.
B. Greatest wealth, truest and purest diamond.
C. Most loving people across the world.
D. Most Intelligent people across the world.

Q. 57 In the poem *A Tiger in the Zoo*, which phrase is used to describe the "Tiger of the Cell"?

A. snarling around houses

B. baring his white fangs

C. his strength behind bars

D. sliding through long grass

Q. 58 Griffin swallowed the rare drugs and became ..... .

A. transparent and solid as a sheet of glass

B. transparent and brittle as a glass

C. sparkling and solid as a wine glass

D. translucent and bleak as a sheet of plastic

Q. 59 Why was the narrator tempted to keep Mrs Pumphrey's dog as a permanent guest?

A. Because he liked the fluffy dog.

B. Mrs. Pumphrey was incompetent to take good care of Tricki.

C. They would not get those luxuries like eggs, wine and brandy.

D. Tricki used to enjoy with other dogs.

Q. 60 In the evening, when Anil came back home with a small bundle of notes, where did he say he got the money from?

A. Sold a story to director.

B. Sold a book to a publisher.

C. Cracked a business deal.

D. Sold record sweets at his shop.

❑❑

Answers

Sample Paper 1

1. B. ignoring family

2. D. making connections and sharing moments.

3. A. available at fingertips.

4. D. update about friends

5. C. Certain activities like exercising and listening to music are known to give a dopamine boost.

6. B. long-lost

7. A. 1 and 3

8. A. Seeking online validation.

9. D. Social media addiction is making people unsocial.

10. C. option 3

11. D. systemic racial injustice.

12. B. (1) is K-pop fan and (2) is BTS

13. B. Fans are posting videos of their idols in such numbers that it has replaced any racist hashtags from trending pages.

14. A. Due to systemic racism

15. D. Fanbases are ridiculed as being naïve even though they can make huge impact on political scenario.

16. C. "illegal activity" during protests.

17. C. it had received a $1 million donation from South Korean pop group BTS.

18. B. organised fan groups can divide work efficiently for a collective effort.

19. C. Can

20. C. latest

21. B. is always running

22. B. The teacher ordered the students to stop banging the desk.

23. A. Peter requested George to wait there till they called him inside.

24. C. has been

25. B. (2), (3) and (4)

26. B. Evoking awareness towards water conservation and rainwater harvesting

27.

B.	• Sanitation problems. • Mosquito breeding and spread of diseases.

28. A. (i) creating (ii) the entire community

29. B. Yes, to 2 because of formal and polite tone.

30. A. help to spread awareness about the issue.

31. A. while writing the second letter.

32. A. because he received less money.

33. B. post office employees

34. A. stubborn and dishonest

35. B. fist

36. B. Only 3

37. B. (1) is false and (2) is true

38. B. strict and innovative

39.

A.	Once aboard my flight I spent the next several hours squeezed between a talkative sailor and a woman with a fussy child.

40. D. She is proud about the essay and its timely submission.

41. C. Grief over the lost ball.

42. A. (1), (2) and (5)

43. B. resilient

44. B. The ball

45. C. Other things cannot bring back the loss.

46. B. Mrs Pumphrey

47. A. To make Mrs. Pumphrey understand the seriousness of her pet's health and to act on it.

48. B. Only (3)

49. D. (2) is false and (1) is true

50. C. toughen up

51. A. hopeful

52. B. Halted temporarily

53. D. he wanted to thank him for saving his life.

54. C. bored and was wondering whether to go outside or stay back inside.

55. D. uplifted

56. A. responsibility

57. D. Jungle, Zoo.

58. A. quick tempered, later furious

59. B. terrible

60. D. Tricki, the dog had turned hugely fat.

Sample Paper 2

1. D. all of these
2. B. invest in renewable energy infrastructure.
3. C. Limiting climate change can help create jobs in sustainable energy sector by 2030.
4. A. solar power
5. A. Yoga is practiced to reduce stress and develop flexibility.
6. C. Climate change
7. A. (1) and (2)
8. C. climate change crisis
9. D. Focusing on solar energy infrastructure is crucial to fight climate change.
10. D. option 4
11. C. rising global temperature and its perils.
12. C. (1) is from United Nations Secretary and (2) is from the Director of UNEP
13. C. Recent wildfires in Australia show a concerning rise in overall temperature.
14. D. 2019 recorded the warmest temperatures since 1880s.
15. B. (1), (3) and (4)
16. B. Ocean temperatures are rising at the equivalent of five Hiroshima bombs a second.
17. C. on the rise
18. B. UN Secretary General António Guterres is calling for curbs on new plants.
19. B. must
20. B. little
21. B. received
22. D. The jailor commanded them to get the prisoners to the wall.
23. C. The detective urged them to maintain silence and listen to him.
24. D. have been
25. D. All of the above
26. A. Inflation and its effects on the people.
27.

A.	Paying capacity, unemployment, soaring prices

28. B. (i) unemployment (ii) plague
29. C. Yes to both (1) and (2).
30. D. help in creating awareness in the society and draw the attention of the authorities.
31. A. He afterwards succeeded in flying
32. A. Well done!
33. B. three
34. D. (iv), (v), (vi)
35. C. devour

36. C. (2) and (4)

37. A. (1) is true and (2) is false.

38. D. They had experienced such honour for the first time.

39.

A.	The parents throw a party on the birth of a male child and not the girl child.

40. D. (i) equality (ii) liberty (iii) self-respect

41. B. Importance of time.

42. B. (3) and (4)

43. A. negativity and sorrow

44. B. Poisonous

45. B. Depressive mood

46. A. Hari Singh

47. D. Experienced

48. D. Only (2)

49. D. (2) is false and (1) is true.

50. B. unsuccessful.

51. B. Amazed and sad

52. C. bitterly regretted

53. B. Margot, Aachen

54. A. to make the Dacota's pilot easily follow him.

55. B. Baring his white fangs

56. D. a flame that can be hidden but never extinguished.

57. B. Some say in ice.

58. D. breakfast with eggs, lunch with wine and dinner with brandy.

59. C. not easily prevented

60. B. being a respected and clever man meant something else.

Sample Paper 3

1. A. Democracy

2. D. a dictator may become authoritarian and ruthless.

3. C. No government can serve complete justice with full transparency.

4. B. illiterate

5. B. The college <u>establishment</u> is pretty strict regarding the student's attendance.

6. A. dictatorship and democracy

7. C. 1 and 5

8. A. Religion

9. A. rights

10. B. option 2

11. D. the number of recoveries, combined with the number of deaths, exceeded the new cases.

12. A. (2) is the result of (1).

13. A. These states are facing growth of new cases more than the national average.

14. D. people were migrating to their native places when the lockdown was relaxed.

15. B. (2), (3) and (4)

16. A. they are the only states to have less than 1,000 people infected with novel coronavirus.

17. C. Tuesday

18. A. lockdown relaxation led to growth of new cases.

19. D. ought to

20. B. better

21. A. sailed

22. D. The mother said with tears that he was no more.

23. A. I told him that I did not believe what the newspapers said.

24. B. watching

25. C. Date of publish

26. C. Utilizing public spaces for community development.

27.

A.	Empty spaces, grow fruits and vegetables, soil conservation

28. A. (i) change (ii) travel and enjoy

29. A. Yes, to option 1 because of formal and polite tone.

30. A. create awareness and make the people realize their duties.

31. C. Arranged

32. C. her dresses

33. C. closet

34. C. aligned

35. C. stolid

36. B. (1), (3) and (5)

37. C. (2) is the cause for (1).

38. A. He was caught in a storm.

39.

C.	She was filled with happiness on seeing her grandparent that she wanted to scream out in joy.

40. A. He was trying to help the narrator.

41. B. Never satisfied

42. B. (1), (2) and (4)

43. A. indifference

44. D. All of the above
45. D. all of these
46. A. Seeing a headless man
47. A. He was questioned by Mrs. Hall.
48. C. (3) and (5)
49. C. (2) is the cause for (1).
50. B. irritated
51. B. laughing heartily
52. D. Some say the world will end in fire.
53. C. he had a strange exercise.
54. B. didn't have the courage.
55. D. *Of a day I had rued*
56. A. heights of character
57. B. Stalking the length of his cage, Ignoring visitors.
58. A. Quick tempered
59. A. sweet, Jumna Shop
60. C. took off in a tremendous leap and sailed into Mrs Pumphrey's lap.

Sample Paper 4

1. C. mark good luck to the people through monkeys.
2. D. has been the site of ancient civilizations and dynasties.
3. C. Welcoming the guests with full fervor.
4. A. a 2000-year-old epic tale of Lord Rama
5. A. We saw the lions <u>feasting upon</u> their prey during our safari tour.
6. B. furry neighbours
7. C. 2 and 4
8. C. Hotelier Yongyuth Kitwattananusont
9. D. both (A) and (B)
10. A. option 1
11. D. ensure that the observations can prove useful for future expeditions.
12. C. (1) is the British expedition and (2) is a group of explorers.
13. B. The expeditions are an expensive affair.
14. A. bad weather
15. C. (1), (3) and (5)
16. D. all of these
17. A. is a very dangerous yet rewarding experience.
18. B. there is always the risk of lethal accidents.
19. C. used to

20. A. as big as

21. B. were

22. B. The coach applauded him saying that he had done well.

23. C. The lady said that she was not very happy to be there that day.

24. D. had, been leading

25. D. Both A and C

26. B. To, The Editor

27. C. Need to encourage blood donation and health camps in the city.

28.

A.	History of blood donation, process of blood formation, government subsidies

29. D. Yes to both (1) and (2).

30. D. (i) a pivotal role in its development (ii) strong shoulders

31. B. When Lencho and his family were having supper.

32. C. Fresh and sweet

33. B. coins

34. D. source of enjoyment for him.

35. B. predicted

36. C. Only 4

37. D. (2) is false and (1) is true

38. B. Everyone made fun of her.

39.

B.	A beggar with an uneven smile which was bigger on one side that the other counting money.

40. B. She does not want to be noticed.

41. B. Snarl around houses.

42. A. (1), (2) and (3)

43. A. resigned to the cell

44. A. Terrorize the villagers.

45. C. The miserable life of the animals in a zoo.

46. D. sweet things

47. C. She was trying to discuss the health condition of her pet dog Tricki to Mr. Harriot.

48. C. 1 and 4

49. A. (2) is true and (1) is false.

50. A. cut down on it for some time.

51. B. field of ripe corn with flowers

52. C. Starts looking for it with desperate eyes.

53. C. mother, fish
54. C. Because of her origin and dress.
55. C. crow, shook
56. A. Prisoner of Hatred, locked behind bars of prejudice and narrow mindedness.
57. C. the stars.
58. C. homeless invisible wanderer, without clothes, without money.
59. D. The well-oiled wrestlers who were grunting, lifting and throwing each other about.
60. A. Tricki would eat nothing, refused even his favourite dishes and had bouts of vomiting.

Sample Paper 5

1. A. is covered in oceans.
2. B. optimal sunlight reaching to planktons.
3. D. Freshwater is potable and not briny.
4. B. salt content
5. C. It has been raining heavily for days now and the nearby field has become a swamp.
6. A. nearly barren ocean bottom
7. C. 2 and 5
8. D. both (A) and (B)
9. D. 35 parts per thousand g
10. A. option 1
11. B. highlight the usage of online transaction methods during demonetization.
12. B. (1) is demonetization and (2) is the Government's goal.
13. D. Paytm recorded the number of users to be seven times the usual.
14. B. high demand for gold also increased its price.
15. C. (2), (3) and (5)
16. C. change in the national currency
17. D. old currency
18. A. These notes accounted for 86% of the country's circulating cash.
19. A. might
20. C. much
21. C. will be flying
22. D. Thomas said that Robert would come as soon as it was possible.
23. D. My mother often says to me that honesty is the best policy.
24. A. will
25. C. Budget of your hotel for the purchase
26. D. All of the above

27.

A.	Goods; their quantity and brand, condition of goods, timely delivery and discount

28. B. Yes to (2) because of the tone of polite expectation.

29. C. (i) sincere apologies (ii) to purchase

30. A. a safe and timely delivery of goods.

31. C. Her diary

32. D. Her diary was hard bound

33. B. patience

34. C. Paper has more patience than people.

35. B. depressed

36. B. Only (3)

37. B. (2) is the result for (1).

38. B. They wanted to make him independent.

39.

A.	Please, my dear fellow, will you sharpen my saber for me?

40. C. to encourage the young seagull to fly

41. A. Nothing can replace memories

42. C. (1), (2), (3), (5)

43. D. The boy is realizing that life can continue despite losses.

44. D. Alliteration

45. A. Ownership

46. C. Mr. Griffin

47. B. Callously

48. B. Only (3)

49. B. (2) is the result for (1).

50. A. Unnoticed

51. D. He was instructed, God's eyes can see everything even deep within one's conscious.

52. A. Both vices are growing and either of them can destroy mankind, Fire or Ice

53. B. Paris, the direction of the route

54. C. stop others from bullying

55. A. the study to learn the nature of loss

56. B. Greatest wealth, truest and purest diamond.

57. C. his strength behind bars

58. A. transparent and solid as a sheet of glass.

59. C. They would not get those luxuries like eggs, wine and brandy.

60. B. Sold a book to a publisher.

❑❑

Hindi–A

Sample Question Paper

Hindi 'A' [Code (002)]

iFke l=

le;% 1 ?kVk 30 feuV | i.kkd% 40

lkekU; funsZ'k%

- इस प्रश्न–पत्र में तीन खंड हैं खंड 'क', खंड 'ख' और खंड 'ग'।
- इस प्रश्न–पत्र में कुल 10 वस्तुपरक प्रश्न पूछे गए हैं। सभी प्रश्नों में उपप्रश्न दिए गए हैं। दिए गए निर्देशों का पालन करते हुए प्रश्नों के उत्तर दीजिए।
- खंड 'क' में कुल 20 प्रश्न पूछे गए हैं, दिए गए निर्देशों का पालन करते हुए केवल 10 प्रश्नों के ही उत्तर दीजिए।
- खंड 'ख' में कुल 20 प्रश्न पूछे गए हैं, दिए गए निर्देशों का पालन करते हुए केवल 16 प्रश्नों के ही उत्तर दीजिए।
- खंड 'ग' में कुल 14 प्रश्न पूछे गए हैं। सभी प्रश्न अनिवार्य हैं।
- सही उत्तर वाले गोले को भली प्रकार से केवल नीली या काली स्याही वाले बॉल पॉइंट पेन से ही ओ.एम.आर. शीट में भरें।

खण्ड – (क)

(अपठित अंश) (अंक 10)

1. नीचे दो अपठित गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के सही विकल्प चुनकर लिखिए। **1 × 5 = 5**

अंतर्राष्ट्रीय श्रम संगठन के अनुसार, बाल श्रम को इस प्रकार परिभाषित किया गया है: ''वह काम जो बच्चों को उनके बचपन, उनकी क्षमता और उनकी गरिमा से वंचित करता है, और जो शारीरिक और मानसिक विकास के लिए हानिकारक है।''

एक सामाजिक बुराई के रूप में संदर्भित, भारत में बाल श्रम एक अनिवार्य मुद्दा है जिससे देश वर्षों से निपट रहा है। लोगों का मानना है कि बाल–श्रम जैसी सामाजिक कुरीति को समाप्त करने का दायित्व सिर्फ सरकार का है। यदि सरकार चाहे तो कानून का पालन न करने वालों एवं कानून भंग करने वालों को सजा देकर बाल–श्रम को समाप्त कर सकती है, किंतु वास्तव में ये केवल सरकार की जिम्मेदारी नहीं है बल्कि इसे सभी सामाजिक संगठनों, मालिकों और अभिभावकों द्वारा भी समाधित करना चाहिए।

हमारे घरों में, ढाबों में, होटलों में, खानों, कारखानों में अनेक बाल–श्रमिक मिल जाएँगे, जो कड़ाके की ठंड और तपती धूप की परवाह किए बिना काम करते हैं। विकासशील देशों में गरीबी और उच्च स्तर की बेरोजगारी बाल श्रम का मुख्य कारण है। बाल मजदूरी इंसानियत के लिए अपराध है जो समाज के लिए श्राप बनती जा रही है तथा जो देश की वृद्धि और विकास में बाधक के रूप में बड़ा मुद्दा है। हमें सोचना होगा कि सभ्य समाज में यह अभिशाप क्यों मौजूद है? जिस उम्र में बच्चों को सही शिक्षा मिलनी चाहिए, खेलकूद के माध्यम से अपने मस्तिष्क का विकास करना चाहिए उस उम्र में बच्चों से काम करवाने से बच्चों का शारीरिक, मानसिक, बौद्धिक और सामाजिक विकास रुक जाता है। शिक्षा का अधिकार मूल अधिकार होता है। शिक्षा से किसी भी बच्चे को वंचित रखना अपराध माना जाता है।

आज आवश्यकता इस बात की है कि सरकारी स्तर से लेकर व्यक्तिगत स्तर तक सभी लोग इसके प्रति सजग रहें और बाल–श्रम के कारण बच्चों का बचपन न छिन जाए, इसके लिए कुछ सार्थक पहल करें। आम आदमी को भी बाल मजदूरी के विषय में जागरूक होना चाहिए और अपने समाज में इसे होने से रोकना चाहिए। बालश्रम को खत्म करना केवल सरकार का ही कर्तव्य नहीं है हमारा भी कर्तव्य है कि हम इस अभियान में सरकार का पूरा साथ दें।

(i) गद्यांश के आधार पर बताइए कि बाल–श्रम जैसी सामाजिक कुरीति को समाप्त करने के लिए लोगों की सोच कैसी है?

(क) बाल–श्रम को समाप्त करना केवल समाजसेवी संस्थाओं का दायित्व है।

(ख) बाल–श्रम को समाप्त करना केवल जनता का दायित्व है।

(ग) बाल–श्रम को समाप्त करना केवल सरकार का दायित्व है।

(घ) बाल–श्रम को समाप्त करना केवल अभिभावकों का दायित्व है

mÙkj& (ग) बाल–श्रम को समाप्त करना केवल सरकार का दायित्व है।

(ii) घरों में, ढाबों में, होटलों में, खानों में, कारखानों में अनेक बाल–श्रमिकों को काम करता देखकर भी हम उदासीन क्यों बने रहते हैं?

(क) हम सिर्फ अपने बारे में ही सोचते हैं। (ख) हम जागरूक बनना नहीं चाहते।

(ग) हम उनकी सहायता करना नहीं चाहते। (घ) हम संवेदना शून्य हो चुके हैं।

mÙkj& (घ) हम संवेदना शून्य हो चुके हैं।

(iii) गद्यांश के आधार पर बताइए कि बाल–श्रम को रोकने के लिए सार्थक प्रयास क्यों किए जाने चाहिए?

(क) बाल–श्रम के कारण बच्चों का बचपन छिन जाता है।

(ख) बाल–श्रम के कारण वे जल्दी बड़े हो जाते हैं।

(ग) बाल–श्रम के कारण बच्चों को घर पर ही रहना पड़ता है।

(घ) बाल–श्रम के कारण बच्चों को विद्यालय आना नहीं पड़ता।

mÙkj& (क) बाल–श्रम के कारण बच्चों का बचपन छिन जाता है।

(iv) बच्चों को बाल–श्रम के लिए क्यों विवश किया जाता है?

(क) जागरूकता का अभाव। (ख) निर्धनता और भुखमरी।

(ग) शिक्षा का अभाव। (घ) लोगों की मनोवृत्ति।

mÙkj& (ख) निर्धना और भुखमरी

(v) बाल–श्रम जैसे सामाजिक अभिशाप से देश को क्या नुकसान होता है?

(क) बाल–श्रम एक बच्चे को बचपन के सभी लाभों से दूर रखता है।

(ख) लाखों बच्चे उचित शिक्षा से वंचित हो जाते हैं।

(ग) बच्चों का शारीरिक, मानसिक और सामाजिक विकास अवरुद्ध हो जाता है।

(घ) बाल–श्रम से देश का आने वाला कल अंधकार की ओर जाने लगता है।

mÙkj& (घ) बाल–श्रम से देश का आने वाला कल अंधकार की ओर जाने लगता है।

vFkok

निसंदेह सहजता से हर एक दिन भिन्न–भिन्न भूमिकाएँ जीते हुए, महिलाएँ किसी भी समाज का स्तम्भ हैं। लेकिन आज भी दुनिया के कई हिस्सों में समाज उनकी भूमिका को नज़रअंदाज़ करता है। इसके चलते महिलाओं को बड़े पैमाने पर असमानता, उत्पीड़न, वित्तीय निर्भरता और अन्य सामाजिक बुराइयों का खामियाजा सहन करना पड़ता है। भारत में महिला सशक्तिकरण की आवश्यकता के बहुत से कारण सामने आते हैं। प्राचीन काल की अपेक्षा मध्य काल में भारतीय महिलाओं के सम्मान स्तर में काफी कमी आयी। जितना सम्मान उन्हें प्राचीन काल में दिया जाता था, मध्य काल में वह सम्मान घटने लगा था।

आधुनिक युग में कई भारतीय महिलाएँ कई सारे महत्वपूर्ण राजनैतिक तथा प्रशासनिक पदों पर पदस्थ हैं, फिर भी सामान्य ग्रामीण महिलाएँ आज भी अपने घरों में रहने के लिए बाध्य हैं और उन्हें सामान्य स्वास्थ्य सुविधा और शिक्षा जैसी सुविधाएँ भी उपलब्ध नहीं हैं। ग्रामीण महिलाएँ सदियों से घर तथा खेतों में पुरुषों के बराबर ही काम करती आई हैं, लेकिन वहाँ उन्हें सामंती सोच के कारण दूसरे दर्जे का नागरिक ही माना जाता रहा है। अब ग्रामीण समाज की सोच बदलने का वक्त आ गया है। सामाजिक असमानता, पा. रिवारिक हिंसा, अत्याचार और आर्थिक अनिर्भरता इन सभी से महिलाओं को छुटकारा पाना है तो जरूरत है महिला सशक्तिकरण की।

महिला सशक्तिकरण से महिलाएँ आत्मनिर्भर और शक्तिशाली बनती हैं जिससे वे अपने जीवन से जुड़े हर फैसले स्वयं ले सकती हैं और परिवार और समाज में अपना स्थान बनाती हैं। समाज में उनके वास्तविक अधिकार को प्राप्त करने के लिए उन्हें सक्षम बनाना महिला सशक्तिकरण है। महिला सशक्तिकरण का अर्थ है महिलाओं को राजनीतिक, सामाजिक, शैक्षणिक और आर्थिक क्षेत्रों में बराबर का भागीदार बनाया जाए। भारतीय महिलाओं का सशक्तिकरण बहुत हद तक भौगोलिक (शहरी और ग्रामीण), शैक्षणिक योग्यता और सामाजिक एकता के ऊपर निर्भर करता है।

महिला सशक्तिकरण से महिलाएँ केवल आर्थिक रूप से सुदृढ़ ही नहीं हुई हैं, अपितु परिवार और समाज की सोच में भी सकारात्मक परिवर्तन दिखाई देने लगे हैं। वर्तमान समय में लोग बेटियों को बोझ समझकर दुनिया में आने से पहले ही मारें नहीं, इसलिए विकास की मुख्यधारा में महिलाओं को लाने के लिए भारत सरकार के द्वारा कई योजनाएँ चलाई गई हैं।

(i) गद्यांश के आधार पर बताइए कि महिला सशक्तिकरण की आवश्यकता क्यों महसूस की गई?

(क) समाज में महिलाओं की स्थिति निर्बल थी। (ख) वे आत्मनिर्भर थीं।

(ग) वे अपने निर्णय लेने में सक्षम थीं। (घ) वे शिक्षित थीं।

mÙkj& (क) समाज में महिलाओं की स्थिति निर्बल थी।

(ii) ग्रामीण सोच में परिवर्तन लाने के लिए क्या किया जा सकता है?

(क) गाँवों में सुविधाएँ उपलब्ध कराना। (ख) सड़कें बनवाना।

(ग) अंधविश्वास और रूढ़ियों का विरोध। (घ) शिक्षा का प्रचार–प्रसार।

mÙkj& (घ) शिक्षा का प्रचार–प्रसार।

(iii) अब लोग बेटियों को बोझ नहीं समझते, यह समाज की किस सोच का परिणाम है?

(क) पुरातन। (ख) सकारात्मक।

(ग) नकारात्मक। (घ) संकीर्ण।

mÙkj& (ख) सकारात्मक।

(iv) महिला सशक्तिकरण से परिवार की आर्थिक स्थिति पर क्या प्रभाव दिखाई दिया?

(क) वित्तीय निर्भरता समाप्त। (ख) आर्थिक स्थिति में दुर्बलता।

(ग) आर्थिक स्थिति में सुदृढ़ता। (घ) वित्तीय ऋण से मुक्ति।

mÙkj& (ग) आर्थिक स्थिति में सुदृढ़ता।

(v) क्या महिलाओं के सशक्तिकरण का पक्ष मात्र आर्थिक रूप से सशक्त होना ही है?

(क) हाँ, इससे वे आत्मनिर्भर हो जाती हैं।

(ख) नहीं, इससे उन्हें दोहरी जिम्मेदारियाँ निभानी पड़ती हैं।

(ग) हाँ, इससे वे शक्तिशाली बनती हैं।

(घ) नहीं, उनका भय–मुक्त, प्रतिबंधों से मुक्त होना भी आवश्यक है।

mÙkj& (घ) नहीं, उनका भय–मुक्त, प्रतिबंधों से मुक्त होना भी आवश्यक है।

2. नीचे दो काव्यांश दिए गए हैं। किसी एक काव्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए– **1 × 5 = 5**

देश के आज़ाद होने पर बिता लंबी अवधि
अब असह्य इस दर्द से हैं धमनियाँ फटने लगीं
व्यर्थ सीढ़ीदार खेतों में कड़ी मेहनत किए
हो गया हूँ और जर्जर, बोझ ढोकर थक गया
अब मरूँगा तो जलाने के लिए मुझको,
अरे! दो लकड़ियाँ भी नहीं होंगी सुलभ इन जंगलों से।
वन कहाँ हैं? जब कुल्हाड़ों की तृषा है बढ़ रही
काट डाले जा रहे हैं मानवों के बंधु तरुवर
फूल से, फल से, दलों से, मूल से, तरु–छाल से
सर्वस्व देकर जो मनुज को लाभ पहुँचाते सदा
कट रहे हैं ये सभी वन,
पर्वतों की दिव्य शोभा हैं निरंतर हो रही विद्रूप,
ऋतुएँ रो रहीं गगनचुम्बी वन सदा जिनके हृदय से
फूटते झरने, नदी बहती सुशीतल नीर की
हर पहर नित चहकते हैं कूकते रहते विहग
फूल पृथ्वी का सहज शृंगार करते हैं जहाँ।

(i) 'अब असह्य इस दर्द से'–में असह्य दर्द का कारण क्या है?

(क) आज़ादी के बाद लंबी अवधि बिता देना। (ख) खेतों में कड़ी मेहनत करना।

(ग) वनों का न रहना। (घ) जर्जर हो जाना।

mÙkj& (ग) वनों का न रहना

(ii) 'जब कुल्हाड़ों की तृषा है बढ़ रही'–कथन से क्या तात्पर्य है?

(क) हिंसा बढ़ना। (ख) सामाजिक क्रांति होना।

(ग) युद्ध का अवसर आना। (घ) पेड़ों को काटकर भी तृप्त न होना।

mÙkj& (घ) पेड़ों को काटकर भी तृप्त न होना।

(iii) अंत्येष्टि के लिए लकड़ियाँ सुलभ न होने का कारण है–

(क) वन काटे जा रहे हैं। (ख) वर्षा के अभाव में वनों का सूखना।

(ग) वन महोत्सव। (घ) मुनाफाखोरी।

mÙkj& (क) वन काटे जा रहे हैं

(iv) पेड़ों को मानव–बंधु क्यों कहा गया है?

(क) मानव पेड़ों का व्यापार करता है। (ख) पेड़ हमें अपना सर्वस्व देते हैं।

(ग) पेड़ हमें ईंधन देते हैं। (घ) मानव पेड़ों का रक्षक है।

mÙkj& (ख) पेड़ हमें अपना सर्वस्व देते हैं।

(v) इस कविता में क्या प्रेरणा दी गई है?

(क) स्वच्छता की। (ख) स्वार्थी बनने की।

(ग) वन–कटाई की। (घ) वन–संरक्षण की।

mÙkj& (घ) वन–संरक्षण की

vFkok

मैं बचपन को बुला रही थी बोल उठी बिटिया मेरी।
नन्दन वन–सी फूल उठी यह छोटी–सी कुटिया मेरी।।

'माँ ओ' कहकर बुला रही थी मिट्टी खाकर आई थीं।
कुछ मुँह में कुछ लिए हाथ में मुझे खिलाने लाई थी।।
पुलक रहे थे अंग, दृगों में कौतुहल था छलक रहा।
मुँह पर थी आह्लाद–लालिमा विजय–गर्व था झलक रहा।।
मैंने पूछा 'यह क्या लाई'? बोल उठी वह 'माँ, काओ'।
हुआ प्रफुल्लित हृदय खुशी से मैंने कहा 'तुम्ही खाओ'।।

पाया मैंने बचपन फिर से बचपन बेटी बन आया।
उसकी मंजुल मूर्ति देकर मुझ में नवजीवन आया।।

मैं भी उसके साथ खेलती खाती हूँ, तुतलाती हूँ।
मिलकर उसके साथ स्वयं मैं भी बच्ची बन जाती हूँ।।

जिसे खोजती थी बरसों से अब जाकर उसको पाया।
भाग गया था मुझे छोड़कर वह बचपन फिर से आया।।

सुभद्रा कुमारी चौहान

(i) काव्यांश के आधार पर बताइए कि कवयित्री ने अपने बचपन को किस रूप में पुनः पाया?

(क) सहेली के रूप में। (ख) अपनी बिटिया के रूप में।

(ग) बचपन की मधुर स्मृति के रूप में। (घ) माँ के रूप में।

mÙkj& (ख) अपनी बिटिया के रूप में।

(ii) कवयित्री वर्षों से किसे खोज रही थीं?

(क) अपनी बेटी को। (ख) बचपन की सहेली को।

(ग) अपनों के साहचर्य को। (घ) अपने बचपन को।

mÙkj& (घ) अपने बचपन को।

(iii) कवयित्री की बेटी के चेहरे पर किस कारण विजय–गर्व झलक रहा था?

(क) माँ को संग खेलते देखकर। (ख) माँ के साथ मिट्टी में खेलने के कारण।

(ग) माँ को मिट्टी खिलाने लाने के कारण। (घ) माँ को प्रसन्न देखकर।

mÙkj& (ग) माँ को मिट्टी खिलाने लाने के कारण।

(iv) मिट्टी खिलाने आई बेटी की छवि कैसी थी?

(क) उसका शरीर धूल धूसरित था और आँखों में डर था।

(ख) उसका अंग–अंग पुलकित हो रहा था और उसकी भोली आँखों में उत्सुकता छलक रही थी।

(ग) उसकी आँखों में शरारत नजर आ रही थी।

(घ) उसकी छवि मनमोहक और आकर्षक थी।

mÙkj& (ख) उसका अंग–अंग पुलकित हो रहा था और उसकी भोली आँखों से उत्सुकता छलक रही थी।

(v) बेटी और माँ के बीच क्या संवाद हुआ?

(क) माँ ने पूछा 'यह क्या लाई हो' और बेटी बोल उठी 'माँ! काओ।'

(ख) माँ ने पूछा 'मिट्टी क्यों खा रही हो?' और बेटी बोल उठी माँ! तुम भी खाओ।'

(ग) माँ ने पूछा 'क्या खेल रही हो? और बेटी बोल उठी 'माँ! आओ तुम भी खेलो।'

(घ) माँ ने पूछा 'हाथ में क्या लाई हो?' और बेटी बोल उठी 'माँ! तुम्हारे लिए मिट्टी लाई हूँ।'

mÙkj& (क) माँ ने पूछा 'यह क्या लाई हो' और बेटी बोल उठी 'माँ! काओ।'

खण्ड – (ख)

(व्यावहारिक व्याकरण) (अंक 16)

3. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए **1 × 4 = 4**

(i) बादल घिर आए और वर्षा होने लगी।
रचना के आधार पर वाक्य–भेद हैं
(क) सरल वाक्य। (ख) मिश्र वाक्य।
(ग) संयुक्त वाक्य। (घ) साधारण वाक्य।

mÙkj& (ग) संयुक्त वाक्य

(ii) निम्नलिखित में मिश्र वाक्य है–
(क) अवनि आई और पढ़ने बैठ गई। (ख) बच्चे दूध पीकर सो गए।
(ग) अध्यापक के सामने सब शांत रहते हैं। (घ) जो झूठ बोलते हैं, उन पर विश्वास मत करो।

mÙkj& (घ) जो झूठ बोलते हैं, उन पर विश्वास मत करो।

(iii) आनंद चार दिन गाँव में रहा। वह सबका प्रिय हो गया।
इस वाक्य का संयुक्त वाक्य में रूपांतरण होगा–
(क) आनंद चार दिन गाँव में रहा और सबका प्रिय हो गया।
(ख) जब आनंद चार दिन गाँव में रहा, तब वह सबका प्रिय हो गया।
(ग) आनंद चार दिन गाँव में रहकर सबका प्रिय हो गया।
(घ) आनंद जब चार दिन गाँव में रहा तो वह सबका प्रिय हो गया।

mÙkj& (क) आनंद चार दिन गाँव में रहा और सबका प्रिय हो गया।

(iv) वह पुस्तक कहाँ है, <u>जो कल खरीदी थी?</u> रेखांकित उपवाक्य का भेद है–
(क) संज्ञा आश्रित उपवाक्य। (ख) सर्वनाम आश्रित उपवाक्य।
(ग) क्रिया–विशेषण आश्रित उपवाक्य। (घ) विशेषण आश्रित उपवाक्य।

mÙkj& (घ) विशेषण आश्रित उपवाक्य।

(v) निम्नलिखित में सरल वाक्य है–
(क) जैसे ही वर्षा हुई वैसे ही मोर नाचने लगे। (ख) वर्षा हुई और मोर नाचने लगे।
(ग) वर्षा होते ही मोर नाचने लगे। (घ) जब वर्षा होती है तब मोर नाचते हैं।

mÙkj& (ग) वर्षा होते ही मोर नाचने लगे।

4. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए– **1 × 4 = 4**

(i) निम्नलिखित वाक्य का वाच्य लिखिए
पर्यटकों द्वारा तीर्थ यात्रा की जाएगी।
(क) कर्तृवाच्य। (ख) भाववाच्य।
(ग) कर्मवाच्य। (घ) करणवाच्य।

mÙkj& (ग) कर्मवाच्य।

(ii) हालदार साहब ने पान खाया।
उपर्युक्त वाक्य को कर्मवाच्य में बदलिए।
(क) हालदार साहब द्वारा पान खाया जाता है। (ख) हालदार साहब से पान नहीं खाया जाता।
(ग) हालदार साहब पान खा रहे हैं। (घ) हालदार साहब द्वारा पान खाया गया।

mÙkj& (घ) हालदार साहब द्वारा पान खाया गया।

(iii) पक्षी बाग छोड़कर नहीं उड़े।
उपर्युक्त वाक्य को भाव वाच्य में बदलिए।
(क) पक्षी बाग छोड़कर नहीं उड़ सके। (ख) पक्षियों से बाग छोड़कर उड़ा नहीं गया।
(ग) पक्षी बाग छोड़कर नहीं उड़ सकते। (घ) पक्षियों से बाग छोड़कर उड़ा नहीं जाता।

mÙkj& (ख) पक्षियों से बाग छोड़कर उड़ा नहीं गया।

(iv) निम्नलिखित वाक्यों में से कर्तृ वाच्य वाला वाक्य छाँटिए–
(क) छात्रों द्वारा सभी का स्वागत हुआ। (ख) छात्रों से सभी का स्वागत करवाया गया।
(ग) छात्रों ने सभी का स्वागत किया। (घ) छात्रों द्वारा सभी का स्वागत किया जाएगा।

mÙkj& (ग) छात्रों ने सभी का स्वागत किया।

(v) निम्नलिखित में से कौन–सा भाव वाच्य का सही विकल्प है?

(क) आओ, वहाँ बैठें। (ख) आओ वहाँ बैठा जाए।

(ग) अब वहाँ बैठते हैं। (घ) चलो, अब वहाँ बैठें।

mÙkj& (ख) आओ वहाँ बैठा जाए।

5. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए–

(i) हम कल दिल्ली जा रहे हैं। रेखांकित पद का परिचय है–

(क) जातिवाचक संज्ञा, एकवचन, पुल्लिंग, कर्ता कारक।

(ख) व्यक्तिवाचक संज्ञा, एकवचन, पुल्लिंग, अधिकरण कारक।

(ग) व्यक्तिवाचक संज्ञा, एकवचन, पुल्लिंग, कर्म कारक।

(घ) जातिवाचक संज्ञा, एकवचन, पुल्लिंग, अपादान कारक।

mÙkj& (ख) व्यक्तिवाचक संज्ञा, एकवचन, पुल्लिंग, अधिकरण कारक।

(ii) यह बालक बहुत मेधावी है–

(क) निश्चयवाचक सर्वनाम, एकवचन, पुल्लिंग, कर्ता कारक।

(ख) जातिवाचक संज्ञा, बहुवचन, पुल्लिंग, कर्ता कारक।

(ग) सार्वनामिक विशेषण, एकवचन, पुल्लिंग, विशेष्य 'बालक'।

(घ) गुणवाचक विशेषण, एकवचन, पुल्लिंग, विशेष्य 'बालक'।

mÙkj& (ग) सार्वनामिक विशेषण, एकवचन, पुल्लिंग, विशेष्य 'बालक'।

(iii) अचानक वर्षा होने लगी–

(क) कालवाचक क्रिया–विशेषण, 'होने लगी' क्रिया की विशेषता।

(ख) रीतिवाचक क्रिया विशेषण, 'होने लगी' क्रिया की विशेषता।

(ग) स्थानवाचक क्रिया–विशेषण, 'होने लगी' क्रिया की विशेषता।

(घ) परिमाणवाचक क्रिया–विशेषण, 'होने लगी' क्रिया की विशेषता।

mÙkj& (ख) रीतिवाचक क्रिया–विशेषण, 'होने लगी' क्रिया की विशेषता।

(iv) वाह! भारत मैच जीत गया।

(क) समुच्चयबोधक अव्यय।

(ख) विस्मयादिसूचक अव्यय, शोकसूचक भाव की अभिव्यक्ति।

(ग) संबंधबोधक अव्यय।

(घ) विस्मयादिसूचक अव्यय, प्रसन्नतासूचक भाव की अभिव्यक्ति।

mÙkj& (घ) विस्मयादिसूचक अव्यय, प्रसन्नतासूचक भाव की अभिव्यक्ति।

(v) शाबाश! तुमने बहुत अच्छा कार्य किया।

(क) मध्यम पुरुषवाचक सर्वनाम, एकवचन, कर्ता कारक। (ख) निजवाचक सर्वनाम, एकवचन, कर्ता कारक।

(ग) मध्यम पुरुषवाचक सर्वनाम, बहुवचन, कर्ता कारक। (घ) उत्तम पुरुषवाचक सर्वनाम, एकवचन, कर्म कारक।

mÙkj& (क) मध्यम पुरुषवाचक सर्वनाम, एकवचन, कर्ता कारक

6. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए– **1 × 4 = 4**

(i) एक ओर अजगरहिं लखि एक ओर मृगराय।
विकल बटोही बीच ही, परयो मूरछा खाय।।
उपर्युक्त काव्य पंक्तियों में निहित रस है

(क) वीर रस। (ख) करुण रस।

(ग) भयानक रस। (घ) रौद्र रस।

mÙkj& (ग) भयानक रस।

(ii) 'उत्साह' किस रस का स्थायी भाव है?

(क) शांत रस। (ख) वीर रस।

(ग) हास्य रस। (घ) रौद्र रस।

mÙkj& (ख) वीर रस।

(iii) श्रीकृष्ण के सुन वचन अर्जुन क्षोभ से जलने लगे।
सब शील अपना भूलकर करतल युगल मलने लगे।
संसार देखे अब हमारे शत्रु रण में मृत पड़े।
करते हुए यह घोषणा वे हो गए उठकर खड़े।।
उपर्युक्त काव्य पंक्तियों में निहित रस है–

(क) रौद्र रस। (ख) वीभत्स रस।
(ग) भयानक रस। (घ) वीर रस।

mÙkj& (क) रौद्र रस।

(iv) विभाव, अनुभाव और संचारी भावों की सहायता से क्या रस रूप में परिणत हो जाते हैं?

(क) आलंबन विभाव। (ख) व्यभिचारी भाव।
(ग) उद्दीपन विभाव। (घ) स्थायी भाव।

mÙkj& (घ) स्थायी भाव।

(v) 'अद्भुत रस' का स्थायी भाव है

(क) भय। (ख) विस्मय।
(ग) जुगुप्सा। (घ) क्रोध।

mÙkj& (ख) विस्मय।

खण्ड – (ग)

(पाठ्यपुस्तक) (अंक 14)

7. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए– **1 × 5 = 5**

नहीं साब! वो लँगड़ा क्या जाएगा फौज में। पागल है पागल! वो देखो, वो आ रहा है। आप उसी से बात कर लो। फोटो–वोटो छपवा दो उसका कहीं।

हालदार साहब को पानवाले द्वारा एक देशभक्त का इस तरह मज़ाक उड़ाया जाना अच्छा नहीं लगा। मुड़कर देखा तो अवाक् रह गए। एक बेहद बूढ़ा मरियल–सा लँगड़ा आदमी सिर पर गाँधी टोपी और आँखों पर काला चश्मा लगाए एक छोटी–सी संदूकची और दूसरे हाथ में एक बाँस पर टँगे बहुत–से चश्मे लिए अभी–अभी एक गली से निकला था और अब एक बंद दुकान के सहारे अपना बाँस टिका रहा था। तो इस बेचारे की दुकान भी नहीं! फेरी लगाता है। हालदार साहब चक्कर में पड़ गए। पूछना चाहते थे, इसे कैप्टन क्यों कहते हैं? क्या यही इसका वास्तविक नाम है? लेकिन पानवाले ने साफ बता दिया था कि अब वह इस बारे में और बात करने को तैयार नहीं।

(i) प्रस्तुत गद्यांश में देशभक्त किसे कहा गया है?

(क) हालदार साहब को। (ख) कैप्टन चश्मेवाले को।
(ग) सामान्य आदमी को। (घ) लेखक को।

mÙkj& (ख) कैप्टन चश्मेवाले को

(ii) पानवाले की कौन–सी बात हालदार साहब को अच्छी नहीं लगी?

(क) मूर्ति बनाने वाले का अपमान। (ख) हालदार साहब पर हँसना।
(ग) मूर्तिकार के कार्य पर टीका–टिप्पणी। (घ) एक देशभक्त का मज़ाक उड़ाना।

mÙkj& (घ) एक देशभक्त का मज़ाक उड़ाना।

(iii) चश्मेवाला एक बंद दुकान के सहारे अपना बाँस क्यों टिका रहा था?

(क) उसकी अपनी कोई दुकान नहीं थी। (ख) उसे किसी से बात करनी थी।
(ग) यह दुकान बाजार के बीचों–बीच थी। (घ) वह उसके जानकार की दुकान थी।

mÙkj& (क) उसकी अपनी कोई दुकान नहीं थी।

(iv) हालदार साहब पानवाले से कैप्टन चश्मेवाले के बारे में क्या पूछना चाहते थे?

(क) चश्मेवाला फेरी क्यों लगाता है? (ख) वह चश्मे कब से बेच रहा है?
(ग) इसे कैप्टन क्यों कहते हैं? (घ) वह कहाँ रहता है?

mÙkj& (ग) इसे कैप्टन क्यों कहते हैं?

(v) हालदार साहब किस कारण कैप्टन के बारे में और जानकारी प्राप्त नहीं कर सके?

(क) पानवाले ने इस बारे में बात करने से मना कर दिया।
(ख) पानवाला कैप्टन के बारे में अधिक नहीं जानता था।

(ग) हालदार साहब के पास समय की कमी थी।

(घ) कैप्टन ने जानकारी देने से मना कर दिया।

mÙkj& (क) पानवाले ने इस बारे में बात करने से मना कर दिया।

8. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए **1 × 2 = 2**

(i) बेटे की मृत्यु के पश्चात् बालगोबिन भगत का आखिरी निर्णय क्या था?

(क) पतोहू का पुनर्विवाह करवाना। (ख) पतोहू को शिक्षा दिलवाना।

(ग) पतोहू को घर से निकालना। (घ) पतोहू से घृणा करना।

mÙkj& (क) पतोहू का पुनर्विवाह करवाना।

(ii) लेखक रामवृक्ष बेनीपुरी जी बालगोबिन भगत की किस विशेषता पर अत्यधिक मुग्ध थे?

(क) पहनावे पर। (ख) व्यवहार पर।

(ग) मधुर गान पर। (घ) कार्य कुशलता पर।

mÙkj& (ग) मधुर गान पर।

9. निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए **1 × 5 = 5**

नाथ संभुधनु भंजनिहारा। होइहि केउ एक दास तुम्हारा।।
आयेसु काह कहिअ किन मोही। सुनि रिसाइ बोले मुनि कोही।।
सेवकु सो जो करै सेवकाई। अरिकरनी करि करिअ लराई।।
सुनहु राम जेहि सिवधनु तोरा। सहसबाहु सम सो रिपु मोरा।।
सो बिलगाउ बिहाइ समाजा। न त मारे जैहहिं सब राजा।।
सुनि मुनि बचन लखन मुसुकाने। बोले परसुधरहि अपमाने।।
बहु धनुही तोरी लरिकाई। कबहुँ न असि रिस कीन्हि गोसाईं।।
येहि धनु पर ममता केहि हेतू। सुनि रिसाई कह भृगुकुलकेतू।।
रे नृप बालक काल बस बोलत तोहि न सँभार।
धनुही सम तिपुरारि धनु बिदित सकल संसार।।

(i) परशुराम के क्रोध को शांत करने के लिए राम ने उनसे क्या कहा?

(क) धनुष तोड़ने वाला कोई राजकुमार है। (ख) धनुष तोड़ने वाला आपका कोई सेवक होगा।

(ग) धनुष तोड़नेवाला आपका कोई मित्र होगा। (घ) यह धनुष अपने आप टूट गया।

mÙkj& (ख) धनुष तोड़ने वाला आपका कोई सेवक होगा।

(ii) स्वयंवर में जो धनुष टूट गया था, वह किसका धनुष था?

(क) राजा जनक का। (ख) राम का

(ग) विष्णु जी का। (घ) परशुराम जी के आराध्य शिवजी का।

mÙkj& (घ) परशुराम जी के आराध्य शिवजी का।

(iii) शिव–धनुष टूटने पर परशुराम क्रोधित क्यों हुए?

(क) परशुराम जी शिव–भक्त थे और उन्हें शिव–धनुष प्रिय था।

(ख) उन्हें सीता–स्वयंवर में आमंत्रित नहीं किया गया था।

(ग) वे क्षत्रिय कुल के विद्रोही थे।

(घ) परशुराम जी क्रोधी स्वभाव के थे।

mÙkj& (क) परशुराम जी शिव–भक्त थे और उन्हें शिव–धनुष प्रिय था।

(iv) 'भृगुकुलकेतू' किसे कहा गया है?

(क) लक्ष्मण को। (ख) राजा जनक को।

(ग) परशुराम को। (घ) विश्वामित्र को।

mÙkj& (ग) परशुराम को

(v) शिव–धनुष तोड़ने वाले की तुलना परशुराम ने अपने किस शत्रु से की है?

(क) कर्ण। (ख) सहसबाहु।

(ग) घटोत्कच। (घ) दुर्योधन।

mÙkj& (ख) सहसबाहु।

10. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए– **1 × 2 = 2**

(i) गोपियों के अनुसार किसने राजनीति की शिक्षा प्राप्त कर ली है?

(क) कंस ने। (ख) नंद ने।

(ग) श्रीकृष्ण ने। (घ) उद्धव ने।

mÙkj& (ग) श्रीकृष्ण ने।

(ii) 'सूरदास के पद' के आधार पर बताइए कि गोपियों ने व्यंग्य कसते हुए किसे भाग्यशाली कहा है?

(क) श्रीकृष्ण को। (ख) उद्धव को।

(ग) सूरदास को। (घ) स्वयं को।

mÙkj& (ख) उद्धव को।

❑❑

Sample Paper 1

Hindi 'A'

खण्ड – (क)

(अपठित अंश)

1. नीचे दो अपठित गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के सही विकल्प चुनकर लिखिए—

संसार में कुछ भी असाध्य नहीं है। कुछ भी असंभव नहीं है क्योंकि दृढ़ इच्छाशक्ति, परिश्रम और अभ्यास द्वारा असंभव को भी संभव किया जा सकता है। असंभव, असाध्य आदि शब्द कायरों के लिए हैं। नेपोलियन के लिए ये शब्द उसके कोष में ही नहीं थे।

साहस के पुतले बापू ने विश्व को चकित कर दिया। क्या बापू शरीर से शक्तिशाली थे? नहीं, वे तो पतले–से, एक लँगोटी पहने लकड़ी के सहारे चलते थे। परन्तु उनके विचार सशक्त थे, भावनाएँ शक्तिशाली थीं। उनके साहस को देखकर करोड़ों भारतीय उनके पीछे थे। ब्रिटिश साम्राज्य उनसे काँप गया। अहिंसा के सहारे बिना रक्तपात के उन्होंने भारत को स्वतंत्र कराया। यह विश्व का अद्वितीय उदाहरण है।

जब गाँधीजी ने अहिंसा का नारा लगाया तो लोग हँसते थे। कहते थे, अहिंसा से कहीं ब्रिटिश साम्राज्य से टक्कर ली जा सकती है? परन्तु वे डटे रहे, साहस नहीं छोड़ा। अंत में अहिंसा की ही विजय हुई। कहते हैं, 'अकेला चना क्या भाड़ फोड़ सकता है' हाँ, फोड़ सकता है, यदि उसमें साहस हो तो।

(i) संसार में सब कुछ इनमें से किसके द्वारा संभव है?
- (क) दृढ़ इच्छाशक्ति।
- (ख) परिश्रम।
- (ग) अभ्यास।
- (घ) इन सभी।

(ii) नेपोलियन के कोष में यह शब्द नहीं था—
- (क) संभव।
- (ख) साध्य।
- (ग) असंभव।
- (घ) परिश्रम।

(iii) गाँधीजी ने नारा लगाया था—
- (क) अहिंसा का।
- (ख) रक्तपात का।
- (ग) शक्ति का।
- (घ) साहस का।

(iv) गाँधीजी पुतले थे—
- (क) शक्ति के।
- (ख) साहस के।
- (ग) अहिंसा के।
- (घ) दुर्बलता के।

(v) उपर्युक्त गद्यांश का उचित शीर्षक लिखिए—
- (क) संसार में कुछ भी असाध्य नहीं है।
- (ख) परिश्रम का महत्व।
- (ग) दृढ़ इच्छाशक्ति।
- (घ) साहस से सब संभव है।

vFkok

आत्मनिर्भरता मनुष्य को श्रेष्ठ बनाती है। स्वावलंबी मनुष्य को अपने आप पर विश्वास होता है जिससे वह किसी के भी कहने में नहीं आ सकता। यदि हमें कोई काम सुधारना है तो हमें किसी के अधीन नहीं रहना चाहिए, बल्कि उसे स्वयं करना चाहिए। एकलव्य स्वयं के प्रयास से धनुर्विधा में प्रवीण बना। निपट निर्धन विद्यार्थी लालबहादुर शास्त्री भारत के प्रधान बने, साधारण से परिवार में जन्मे जैलसिंह स्वावलंबन के सहारे ही भारत के राष्ट्रपति बने। जिस प्रकार अलंकार काव्य की शोभा बढ़ाते हैं, सूक्ति भाषा को चमत्कृत करती है, गहने शरीर का सौंदर्य बढ़ाते हैं, उसी प्रकार आत्मनिर्भरता मानव में अनेक गुणों को प्रतिष्ठित करती है। आत्मनिर्भर व्यक्ति कठिन से कठिन कार्य को स्वविवेक तथा तत्परता द्वारा सरल बना लेता है, अतएव स्वावलंबन व्यक्ति का आभूषण है।

(i) मनुष्य को श्रेष्ठ कौन बनाता है—
- (क) विश्वास।
- (ख) प्रयास।
- (ग) आत्मनिर्भरता।
- (घ) चमत्कार।

(ii) आत्मनिर्भर व्यक्ति के कौन–कौन से गुण हैं?
- (क) आत्मनिर्भर व्यक्ति स्वावलंबी होता है।
- (ख) उसे स्वयं पर विश्वास होता है।
- (ग) वह किसी की बातों में नहीं आता।
- (घ) ये सभी गुण हैं।

(iii) आत्मनिर्भरता का अर्थ है–

(क) अपने आप पर निर्भर होना। (ख) दूसरों पर निर्भर होना।

(ग) अपने काम के लिए दूसरों की सहायता लेना। (घ) दूसरों के अधीन रहना।

(iv) स्वयं के प्रयास से प्रवीण बनने वाला धनुर्धर कौन था?

(क) जैलसिंह। (ख) लालबहादुर शास्त्री।

(ग) एकलव्य। (घ) अन्य।

(v) उपर्युक्त गद्यांश का उचित शीर्षक होगा—

(क) आत्मनिर्भरता। (ख) आत्मनिर्भरता श्रेष्ठ है।

(ग) स्वावलंबन। (घ) स्वावलंबन व्यक्ति का आभूषण है।

2. नीचे दो काव्यांश दिए गए हैं। किसी एक काव्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

तूफानों की ओर घुमा दो नाविक निज पतवार!
आज सिंधु ने विष उगला है
लहरों का यौवन मचला है
आज हृदय में और सिंधु में
साथ उठा है ज्वार!
तूफानों की ओर घुमा दो नाविक निज पतवार!
लहरों के स्वर में कुछ बोलो
इस अंधड़ में साहस तोलो
कभी–कभी मिलता जीवन में
तूफानों का प्यार।
तूफानों की ओर घुमा दो नाविक निज पतवार!
यह असीम निज सीमा जाने
सागर को भी यह पहचाने
मिट्टी के पुतले मानव ने
कभी न मानी हार।
तूफानों की ओर घुमा दो नाविक निज पतवार!
सागर की अपनी क्षमता है
पर माँझी भी कब थकता है
जब तक साँसों में स्पंदन है
उसका हाथ नहीं रुकता है,
इसके ही बल पर कर डाले सातों सागर पार।
तूफानों की ओर घुमा दो नाविक निज पतवार।

(i) सिंधु ने क्या उगला है?

(क) ज्वार। (ख) यौवन। (ग) विष। (घ) तूफान।

(ii) मनुष्य के हृदय में और समुद्र में एक साथ क्या उठा है?

(क) साहस। (ख) प्यार। (ग) ज्वार। (घ) लहर।

(iii) मिट्टी का पुतला किसे कहा गया है?

(क) मानव को। (ख) सिंधु को। (ग) माँझी को। (घ) तूफान को।

(iv) स्पंदन का समानार्थी होगा—

(क) धड़कन। (ख) साँस। (ग) सागर। (घ) पतवार।

(v) प्रस्तुत कविता के माध्यम से कवि क्या संदेश देना चाहता है?

(क) हमें तूफानों में नाव चलानी चाहिए।

(ख) समुद्र विष उगलता है।

(ग) हमें बाधाओं को पार कर अपने लक्ष्य तक पहुँचना चाहिए।

(घ) समुद्र में नाव चलाना खतरनाक होता है।

vFkok

साक्षी है इतिहास हमीं पहले जागे हैं,
जाग्रत सब हो रहे हमारे ही आगे हैं।
शत्रु हमारे कहाँ नहीं भय से भागे हैं?
कायरता से कहाँ प्राण हमने त्यागे हैं?
हैं हमीं प्रकंपित कर चुके,
सुरपति तक का भी हृदय।
फिर एक बार हे विश्व तुम!
गाओ भारत की विजय।।
कहाँ प्रकाशित नहीं रहा है तेज़ हमारा,
दलित कर चुके शत्रु सदा हम पैरों द्वारा।
बतलाओ तुम कौन नहीं जो हमसे हारा,
पर शरणागत हुआ कहाँ, कब हमें न प्यारा।।
बस युद्ध–मात्र को छोड़कर,
कहाँ नहीं हैं हम सदय।
फिर एक बार हे विश्व तुम!
गाओ भारत की विजय।।

(i) 'पहले जागे हैं' से क्या तात्पर्य है?
(क) सबसे पहले सवेरा यहाँ होता है।
(ख) ज्ञान प्राप्ति हमें सबसे पहले हुई।
(ग) विज्ञान के आविष्कार यहीं हुए।
(घ) जीत का सवेरा यहीं हुआ।

(ii) 'हैं हमीं प्रकंपित कर चुके, सुरपति तक का भी हृदय'—से हमारी किस विशेषता का बोध होता है?
(क) दयालुता। (ख) वीरता।
(ग) शरणागत वत्सलता। (घ) ज्ञान प्राप्ति।

(iii) हमारी दयालुता किन पंक्तियों से प्रकट होती है?
(क) हैं हमीं प्रकंपित कर चुके, सुरपति तक का हृदय।
(ख) कहाँ प्रकाशित नहीं रहा है तेज़ हमारा।
(ग) दलित कर चुके शत्रु सदा हम पैरों द्वारा।
(घ) पर शरणागत हुआ कहाँ, कब हमें न प्यारा। बस युद्ध–मात्र को छोड़कर, कहाँ नहीं हैं हम सदय।

(iv) विश्व को भारत का जयघोष करने को क्यों कहा गया है?
(क) हमारी जीतने की शक्ति के कारण।
(ख) हमारे परंपरा से चले आ रहे गुणों के कारण।
(ग) हमारे समृद्ध अतीत के कारण।
(घ) हमारे सुरपति तक पहुँचने के कारण।

(v) 'सदय' का विलोम है—
(क) निर्दय। (ख) दयावान।
(ग) दयाहीन। (घ) कायर।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) खिलौना मिलते ही बच्चा चुप हो गया—
(क) सरल वाक्य। (ख) संयुक्त वाक्य।
(ग) मिश्र वाक्य। (घ) आश्रित उपवाक्य।

(ii) वह घर आया और उसने भोजन किया—
(क) मिश्र वाक्य। (ख) सरल वाक्य।
(ग) संयुक्त वाक्य। (घ) प्रधान उपवाक्य।

(iii) नीरज ने जो पुस्तक माँगी थी, वह उसे मिल गई—
(क) संज्ञा उपवाक्य। (ख) मिश्र वाक्य।
(ग) संयुक्त वाक्य। (घ) सरल वाक्य।

(iv) रचना के आधार पर वाक्य के भेद हैं—
(क) तीन। (ख) चार।
(ग) आठ। (घ) पाँच।

(v) यह आश्रित उपवाक्य का भेद नहीं है—
(क) संज्ञा उपवाक्य। (ख) सर्वनाम उपवाक्य।
(ग) विशेषण उपवाक्य। (घ) क्रिया–विशेषण उपवाक्य।

4. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) दादाजी के द्वारा हम सबको पुस्तकें दी गईं—
(क) कर्तृवाच्य। (ख) कर्मवाच्य।
(ग) भाववाच्य। (घ) इनमें से कोई नहीं।

(ii) सुरेश नाटक खेलता है—
(क) कर्तृवाच्य। (ख) कर्मवाच्य।
(ग) उपर्युक्त दोनों। (घ) भाववाच्य।

(iii) 'उससे चला नहीं जाता'—इस वाक्य का कर्तृवाच्य है—
(क) वह चल नहीं सकता। (ख) उससे चला जाता है।
(ग) उसके द्वारा चला नहीं जाता। (घ) वह चल सकता है।

(iv) कर्तृवाच्य में प्रधानता रहती है—
(क) कर्म की। (ख) भाव की।
(ग) कर्ता की। (घ) इन तीनों की।

(v) कर्मवाच्य में प्रधानता रहती है—
(क) कर्ता की। (ख) कर्म की।
(ग) भाव की। (घ) इनमें से किसी की नहीं।

5. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(1) वह <u>अचानक</u> <u>आ</u> <u>गया</u>।

(i) अचानक—
(क) क्रिया-विशेषण, रीतिवाचक, 'आ गया' क्रिया की विशेषता।
(ख) क्रिया-विशेषण, कालवाचक, 'आ गया' क्रिया की विशेषता।
(ग) क्रिया-विशेषण, स्थानवाचक,'वह' शब्द की विशेषता।
(घ) क्रिया-विशेषण, रीतिवाचक, 'वह' शब्द की विशेषता।

(ii) आ गया—
(क) सकर्मक क्रिया, वर्तमान काल, पुल्लिंग, एकवचन।
(ख) अकर्मक क्रिया, सामान्य भूतकाल, पुल्लिंग, एकवचन।
(ग) अकर्मक क्रिया, सामान्य वर्तमान काल, पुल्लिंग, एकवचन।
(घ) सकर्मक क्रिया, आसन्न भूतकाल, पुल्लिंग, एकवचन।

(2) <u>मुकेश</u> <u>परिश्रमी</u> <u>छात्र</u> है।

(iii) मुकेश—
(क) जातिवाचक संज्ञा, पुल्लिंग, एकवचन, कर्ताकारक।
(ख) व्यक्तिवाचक संज्ञा, पुल्लिंग, एकवचन, कर्ताकारक।
(ग) भाववाचक संज्ञा, पुल्लिंग, बहुवचन, कर्मकारक।
(घ) व्यक्तिवाचक संज्ञा, स्त्रीलिंग, एकवचन, करणकारक।

(iv) परिश्रमी—
(क) गुणवाचक विशेषण, एकवचन,पुल्लिंग, विशेष्य—छात्र।
(ख) परिमाणवाचक विशेषण, एकवचन, पुल्लिंग, विशेष्य—मुकेश।
(ग) गुणवाचक विशेषण, बहुवचन,स्त्रीलिंग, विशेष्य—छात्र।
(घ) सार्वनामिक विशेषण, एकवचन, पुल्लिंग, विशेष्य—छात्र।

(v) छात्र—
(क) जातिवाचक संज्ञा, एकवचन, स्त्रीलिंग, 'परिश्रमी' का विशेष्य।
(ख) व्यक्तिवाचक संज्ञा, बहुवचन, पुल्लिंग, विशेष्य।
(ग) जातिवाचक संज्ञा, एकवचन, पुल्लिंग, 'परिश्रमी' का विशेष्य।
(घ) भाववाचक संज्ञा, एकवचन, पुल्लिंग, विशेष्य।

6. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) संचारी भाव कितने माने गए हैं?
(क) 33 (ख) 34 (ग) 35 (घ) 37

(ii) कौरवों का श्राद्ध करने के लिए, या कि रोने को चिता के सामने।
शेष अब है रह गया कोई नहीं, एक वृद्धा एक अंधे के सिवा।
(क) करुण रस। (ख) वीर रस। (ग) वीभत्स रस। (घ) शांत रस।

(iii) हास्य रस का स्थायी भाव है?
(क) उत्साह। (ख) रति। (ग) हास। (घ) निर्वेद।

(iv) 'उत्साह' किस रस का स्थायी भाव है?
(क) भयानक रस। (ख) वीर रस। (ग) रौद्र रस। (घ) शृंगार रस।

(v) आधुनिक विद्वानों ने रसों की संख्या मानी है—
(क) नौ। (ख) दस। (ग) ग्यारह। (घ) आठ।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

अब हालदार साहब को बात कुछ—कुछ समझ में आई। एक चश्मेवाला है जिसका नाम कैप्टन है। उसे नेताजी की बगैर चश्मेवाली मूर्ति बुरी लगती है। बल्कि आहत करती है, मानो चश्मे के बगैर नेताजी को असुविधा हो रही हो। इसलिए वह अपनी छोटी—सी दुकान में उपलब्ध गिने—चुने फ्रेमों में से एक नेताजी की मूर्ति पर फिट कर देता है, लेकिन जब कोई ग्राहक आता है और उसे वैसे ही फ्रेम की दरकार होती है, जैसा मूर्ति पर लगा है तो कैप्टन चश्मेवाला मूर्ति पर लगा फ्रेम—संभवतः नेताजी से क्षमा माँगते हुए लाकर ग्राहक को दे देता है और बाद में नेताजी को दूसरा फ्रेम लौटा देता है। वाह ! भई खूब! क्या आइडिया है, लेकिन भाई ! एक बात अभी भी समझ में नहीं आई। हालदार साहब ने पानवाले से फिर पूछा, नेताजी का ओरिजिनल चश्मा कहाँ गया?

(i) हालदार साहब को यह बात समझ में आई कि—
(क) एक चश्मे वाला है, जिसका नाम कैप्टन है। (ख) चश्मेवाला कोई फौजी है।
(ग) कैप्टन सेना से सेवानिवृत है। (घ) चश्मेवाला अपने चश्मों का विज्ञापन करता है।

(ii) चश्मेवाले को यह बात बुरी लगती थी कि—
(क) सब लोग उसे चश्मेवाला कहते हैं। (ख) सब लोग उसे कैप्टन कहते हैं।
(ग) नेताजी की मूर्ति की आँखों पर चश्मा नहीं था। (घ) उसे नेताजी की मूर्ति पर चश्मा पहनाना पड़ता है।

(iii) ग्राहक द्वारा मूर्ति पर लगा फ्रेम माँगने पर कैप्टन क्या करता था?
(क) वह ग्राहक को फ्रेम देने से मना कर देता था।
(ख) वह मूर्ति पर लगा फ्रेम ग्राहक को दे देता था और मूर्ति पर दूसरा फ्रेम लगा देता था।
(ग) वह नेताजी से क्षमा माँगता था।
(घ) वह ग्राहक से अधिक पैसे वसूलता था।

(iv) असुविधा' शब्द से उपसर्ग और मूलशब्द अलग—अलग कीजिए—
(क) असु + विधा। (ख) असुवि + धा।
(ग) अस + उविधा। (घ) अ + सुविधा।

(v) 'आइडिया' शब्द किस भाषा से लिया गया है?
(क) अंग्रेजी भाषा। (ख) हिंदी भाषा।
(ग) पुर्तगाली भाषा। (घ) जर्मनी भाषा।

8. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) लेखक स्वयं प्रकाश द्वारा लिखित 'नेताजी का चश्मा' नामक पाठ का उद्देश्य इनमें से क्या हो सकता है?
(क) नगरपालिका की कार्य–पद्धति पर आलोचना करना।
(ख) कैप्टन चश्मे वाले के माध्यम से देश के करोड़ों नागरिकों की देशभक्ति और उनके योगदान को रेखांकित करना।
(ग) पान वाले द्वारा चश्मे वाले के व्यक्तित्व एवं क्रियाकलापों का मज़ाक उड़ाए जाने पर दुखी होना।
(घ) नेताजी की मूर्ति पर बदलते हुए चश्मों को देखकर उत्सुकता प्रकट करना।

(ii) बालगोबिन भगत की वेशभूषा कैसी थी?
(क) शरीर पर एकमात्र लँगोटी तथा सिर पर कनफटी टोपी होती थी।
(ख) सर्दियों में काला कंबल ओढ़ लेते थे।
(ग) मस्तक पर रामानंदी तिलक और गले में तुलसी की माला होती थी।
(घ) उपर्युक्त सभी सत्य हैं।

9. निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

लखन कहा हसि हमरे जाना। सुनहु देव सब धनुष समाना।।
का छति लाभ जून धनु तोरे। देखा राम नयन के भोरे।।
छुअत टूट रघुपतिहु न दोसू। मुनि बिनु काज करिअ कत रोसू।।
बोले चितै परसु की ओरा। रे सठ सुनेहि सुभाउ न मोरा।।
बालकु बोलि बधौं नहि तोही। केवल मुनि जड़ जानहि मोही।।
बाल ब्रह्मचारी अति कोही। बिस्वबिदित क्षत्रियकुल द्रोही।।
भुजबल भूमि भूप बिनु कीन्ही। बिपुल बार महि देवन्ह दीन्ही।।

(i) उपर्युक्त काव्यांश में किस–किस के मध्य संवाद हो रहा है?
(क) परशुराम–राम। (ख) लक्ष्मण–परशुराम।
(ग) राम–लक्ष्मण। (घ) परशुराम–जनक।

(ii) प्रस्तुत पद्यांश की भाषा है—
(क) अवधी। (ख) खड़ी बोली।
(ग) भोजपुरी। (घ) ब्रजभाषा।

(iii) यहाँ किस धनुष के बारे में बात की जा रही है?
(क) राम के धनुष के बारे में। (ख) जनक के धनुष के बारे में।
(ग) शिवजी के धनुष के बारे में। (घ) परशुराम के धनुष के बारे में।

(iv) 'बालकु बोलि बधौ नहिं तोही'—इस पंक्ति में अलंकार है—
(क) उपमा। (ख) रूपक।
(ग) अनुप्रास। (घ) उत्प्रेक्षा।

(v) 'बाल ब्रह्मचारी अति कोही'—इस पंक्ति के द्वारा किसके स्वभाव का परिचय दिया गया है?
(क) परशुराम। (ख) लक्ष्मण।
(ग) राम। (घ) शिवजी।

10. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) सूरदास के भ्रमरगीत की विभिन्न विशेषताएँ हैं। कौन–सा कथन सही नहीं है?
(क) गोपियाँ कृष्ण की दीवानी हैं और उनका प्रेम अनन्य, संपूर्ण और अनूठा है।
(ख) भ्रमरगीत में शुद्ध साहित्यिक ब्रजभाषा का प्रयोग हुआ है।
(ग) इसमें योग–साधना के सम्मुख प्रेम को तुच्छ दिखाया गया है।
(घ) भ्रमरगीत में व्यंग्य, कटाक्ष, उलाहना, निराशा आदि मनोभाव प्रकट होते हैं।

(ii) क्रोधित होते हुए भी परशुराम जी ने लक्ष्मण का वध क्यों नहीं किया?
(क) लक्ष्मण ने शिव–धनुष भंग नहीं किया था। (ख) लक्ष्मण को कम आयु का बालक जानकर
(ग) सभा में सब उपस्थित थे। (घ) वे ब्राह्मण थे।

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Sample Paper 2

Hindi 'A'

खण्ड – (क)

(अपठित अंश)

1. नीचे दो अपठित गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के सही विकल्प चुनकर लिखिए—

आत्मविश्वास मनुष्य की सबसे बड़ी पूंजी है। यह हमारे सभी आंतरिक गुणों का शिरोमणि है, जिसके अभाव में हम लक्ष्य सिद्धि के प्रयत्नों से दूर हो जाते हैं। विद्यार्थी जीवन से ही हमें इस गुण का विकास स्वयं अपने अंदर विकसित करना चाहिए ताकि आने वाला हमारा भविष्य तात्कालिक लक्ष्यों से ओतप्रोत और परिपूर्ण हो। आत्मविश्वास वस्तुतः अपनी शक्तियों की सच्ची पहचान का नाम है अर्थात् अपनी कार्यक्षमता, कार्यकुशलता और योग्यता का ज्ञान और परख से रूबरू होना और उस दिशा में अपने आप को झोंक देना, और अपनी शक्तियों को कार्यरूप में परिणत करने की वास्तविकता ही आत्मज्ञान और आत्मविश्वास है। हमें जिस पदार्थ की कामना है, लिप्सा है उसकी सिद्धि के लिए हमें आत्मविश्वासी बनकर फल की प्राप्ति की साधना करनी होगी। दृढ़ निश्चय कीजिए, अटूट, अक्षय संकल्प कीजिए, और अपने मार्ग की रुकावटों को प्रबल आत्मविश्वास से पराजित कीजिए। जिस प्रकार का व्यक्ति का आत्मविश्वास होगा, वैसी ही उसकी योग्यता होगी, यदि हमारी इच्छा अदम्य है तो प्रयत्न भी अदम्य होना चाहिए और उसका मूलाधार आत्मविश्वास ही है। जिसमें आत्मविश्वास प्रबल होगा, दृढ़ इच्छाशक्ति होगी, वह व्यक्ति विपुल ज्ञान, अदम्य साहस और धन संपत्ति का स्वामी होगा, हर मनोनुकूल क्षेत्र में विजेता होगा। आत्मविश्वास एक भावना है, एक अद्भुत गुण है, एक सर्वश्रेष्ठ आंतरिक शक्ति है, एक आंतरिक भावातिरेक है। जहाँ और जिस व्यक्ति के अंदर इन गुणों को कार्य रूप में परिणत करने का साहस है, उत्साह है और शक्ति है उसे सफलता और कार्य–सिद्धि स्वतः ही प्राप्त हो जाती है। आत्मविश्वास ही साहस और उत्साह का जनक है, जीवन में कठोर परीक्षाएँ सम्मुख आएँ या कठिनाइयाँ बाधा डालें आत्मविश्वासी को कोई भी परिस्थिति हतोत्साहित नहीं कर सकती।

(i) मनुष्य की सबसे बड़ी पूँजी है—
(क) विद्यार्थी जीवन। (ख) योग्यता।
(ग) आत्मविश्वास। (घ) कार्यक्षमता।

(ii) जीवन में आने वाली कठिनाइयाँ किसे हतोत्साहित नहीं करतीं?
(क) विपुल ज्ञानी को। (ख) साहसी व्यक्ति को।
(ग) धन–संपत्ति के स्वामी को। (घ) आत्मविश्वासी को।

(iii) आत्मविश्वास के अभाव में हम किससे दूर हो जाते हैं?
(क) लक्ष्य सिद्धि के प्रयत्नों से। (ख) आत्मज्ञान से।
(ग) मार्ग की रुकावटों से। (घ) पराजय से।

(iv) साहस और उत्साह का जनक किसे कहा गया है?
(क) दृढ़ निश्चय को। (ख) अक्षय संकल्प को।
(ग) आत्मविश्वास को। (घ) जीवन में आने वाले संघर्षों को।

(v) उपर्युक्त गद्यांश के लिए उपयुक्त शीर्षक होगा—
(क) विद्यार्थी जीवन। (ख) कार्यक्षमता।
(ग) आंतरिक शक्ति। (घ) 'आत्मविश्वास मनुष्य की सबसे बड़ी पूँजी'।

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देश ने 2 अक्टूबर, 2019 को महात्मा गाँधी की 150वीं जयन्ती मनाई। सरकार ने उनकी स्मृति में अनेक कार्यक्रम आयोजित किए। आधुनिक भारत में संभवतः महात्मा गाँधी का चरित्र अच्छाइयों तथा विरोधी बातों से परस्पर चर्चित है। जितने लोग उन्हें प्रासंगिक बताने वाले हैं, उतने ही लोग अप्रासंगिक बताने वाले भी हैं। भारत में गाँधीजी को लेकर वाद–विवाद बढ़ता नजर आ रहा है चाहे उनकी प्रतिमाएँ बढ़ रही हैं और उनके नाम पर सरकारी कार्यक्रमों का आयोजन हो रहा है, परन्तु उनके जीवन का मूल मंत्र 'सत्य और अहिंसा' मात्र किताबी भाव रह गए हैं। पर एक समय था, जब वे ठोस, स्थिर एवं वस्तुनिष्ठ सत्ता थे। आज के समय में अधिक–से–अधिक संपत्ति अर्जित करना और उसका उपभोग करना ही हर मनुष्य का लक्ष्य रह गया है। दूसरों को साथ लेकर चलना और दुखियारों की मदद करना शिथिल हो गया है। इस प्रवृत्ति का विस्तार राष्ट्र के स्तर पर भी देखने को मिल जाता है। विश्व स्तर पर सभी राष्ट्रों की एक–दूसरे से ज्यादा शक्तिशाली

बनने की प्रतिस्पर्धा चल रही है। हर राष्ट्र अधिक–से–अधिक गोला–बारूद बनाकर अपने आपको बलशाली दिखाना चाहता है तथा अपनी अर्थव्यवस्था से अपनी श्रेष्ठता दिखाना चाहता है। शान्ति, प्रेम एवं अहिंसा की बातें केवल भाषणों तक सीमित रह गई हैं।

(i) देश ने 2 अक्टूबर, 2019 को गाँधीजी की कौन–सी जयंती मनाई?
(क) 150वीं। (ख) 50वीं।
(ग) 15वीं। (घ) 100वीं।

(ii) आधुनिक भारत में महात्मा गाँधीजी का चरित्र चर्चित है—
(क) उनकी अच्छाइयों के लिए। (ख) विरोधी बातों के लिए।
(ग) अच्छाइयों और विरोधी बातों के लिए। (घ) इनमें से कोई नहीं।

(iii) गाँधीजी को लेकर किस बात का वाद–विवाद बढ़ रहा है—
(क) गाँधीजी की प्रासंगिकता का। (ख) उनकी अप्रासंगिकता का।
(ग) उनकी प्रासंगिकता तथा अप्रासंगिकता का। (घ) सरकारी कार्यक्रमों के आयोजन का।

(iv) विश्व स्तर पर राष्ट्र अपनी श्रेष्ठता कैसे दिखाना चाहते हैं?
(क) अधिक–से–अधिक गोला–बारूद बनाकर। (ख) अपने आपको अधिक शक्तिशाली दिखाकर।
(ग) अपनी अर्थव्यवस्था से अपनी श्रेष्ठता दिखाकर। (घ) उपर्युक्त सभी सत्य हैं।

(v) उपर्युक्त गद्यांश का उचित शीर्षक बताइए—
(क) गाँधीजी के विलुप्त होते सिद्धान्त। (ख) गाँधीजी की प्रासंगिकता।
(ग) राष्ट्रपिता महात्मा गाँधी। (घ) सत्य और अहिंसा के पुजारी–बापू।

2. नीचे दो काव्यांश दिए गए हैं। किसी एक काव्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

सहानुभूति चाहिए, महाविभूति है यही;
वशीकृता सदैव है बनी हुई स्वयं मही।
विरुद्धवाद बुद्ध का दया–प्रवाह में बहा,
विनीत लोकवर्ग क्या न सामने झुका रहा?
आह! वही उदार है परोपकार जो करे,
वही मनुष्य है कि जो मनुष्य के लिए मरे।।
रहो न भूल के सभी मदांध तुच्छ वित्त में,
सनाथ जान आपको करो न गर्व चित्त में।
दयालु दीनबंधु के अधीर भाव जो धरे,
वही मनुष्य है कि जो मनुष्य के लिए मरे।।
अनंत अंतरिक्ष में अनंत देव हैं खड़े,
समक्ष ही स्वबाहु जो बढ़ा रहे बड़े–बड़े।
परस्परावलंब से उठो तथा बढ़ो सभी,
अभी अमर्त्य–अंक में अपंक हो चढ़ो सभी।।
रहो न यों कि एक से न नाम और का सटे,
वही मनुष्य है कि जो मनुष्य के लिए मरे।।

(i) कवि ने महान् विभूति किसे कहा है?
(क) दीनबंधु को। (ख) सहानुभूति को।
(ग) अंतरिक्ष को। (घ) परोपकार को।

(ii) कवि के अनुसार वही उदार है जो—
(क) परोपकारी। (ख) मदांध व्यक्ति।
(ग) सनाथ। (घ) गर्व करने वाला।

(iii) 'अभी अमर्त्य–अंक में अपंक हो चढ़ो सभी', इस पंक्ति में अलंकार है—
(क) उपमा। (ख) रूपक।
(ग) उत्प्रेक्षा। (घ) अनुप्रास।

(iv) मनुष्य को इनमें से क्या नहीं भूलना चाहिए?
(क) मदांधता। (ख) स्वार्थ।
(ग) अहं। (घ) दूसरों की सहायता करना।

(v) स्वयं को सनाथ मानकर कभी गर्व नहीं करना चाहिए, क्योंकि—

(क) सभी ईश्वर की संतान हैं। (ख) ईश्वर सबका नाथ है।

(ग) दयालु, दीनबंधु की कृपा सभी पर है। (घ) इनमें से सभी।

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सागर के उर पर नाच नाच, करती हैं लहरें मधुरगान
प्रातः समीर से हो अधीर,
छूकर पल–पल उल्लसित तीर,
कुसुमावलि–सी पुलकित महान,
सागर के उर पर नाच–नाच, करती हैं लहरें मधुरगान।
संध्या–से पाकर रुचिर रंग
करती–सी शत सुर–चाप भंग
हिलती नव तरू दल के समान,
सागर के उर पर नाच नाच, करती हैं लहरें मधुरगान।
करतल गत कर नभ की विभूति,
पाकर शशि से सुषमानुभूति
तारावलि–सी मृदु दीप्तिमान,
सागर के उर पर नाच नाच, करती हैं लहरें मधुरगान।
तन पर शोभित नीला दुकूल
हैं छिपे हृदय में भाव फूल
आकर्षित करती हुई ध्यान,
सागर के उर पर नाच नाच, करती हैं लहरें मधुरगान।

(i) लहरें कहाँ नाचकर मधुर गान करती हैं?

(क) समुद्र के ऊपर। (ख) समुद्र के जल में।

(ग) समुद्र के उर पर। (घ) नदी में।

(ii) 'कुसुमावलि' शब्द का संधि–विच्छेद होगा—

(क) कुसुम + अवलि। (ख) कुसुमा + वलि।

(ग) कु + सुमावलि। (घ) कुसु + मावलि।

(iii) 'सुरचाप भंग करना' क्या होता है?

(क) इंद्रधनुषों की शोभा को पीछे छोड़ देना। (ख) देवताओं का चाप भंग कर देना।

(ग) सुर की चाप टूट जाती है। (घ) अत्यंत सुंदर।

(iv) कौन–सा शब्द 'शशि' का पर्यायवाची नहीं है?

(क) सोम। (ख) निशाकर।

(ग) चंद्रमा। (घ) दिवाकर।

(v) 'नीला दुकूल' क्या है?

(क) नीला दुपट्टा। (ख) आकाश की नीलिमा।

(ग) नीला सागर जल। (घ) चारों ओर फैली नीलिमा।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) पैसे देखते ही गरीब की आँखों में चमक आ गई—

(क) संयुक्त वाक्य। (ख) मिश्र वाक्य।

(ग) सरल वाक्य। (घ) विधानवाचक वाक्य।

(ii) विद्यालय समय पर जाने के लिए जल्दी उठो—

(क) सरल वाक्य। (ख) संयुक्त वाक्य।

(ग) मिश्र वाक्य। (घ) आज्ञावाचक वाक्य।

(iii) मोहन पिताजी के पैरों में गिरा और क्षमा माँगने लगा—

(क) मिश्र वाक्य। (ख) संयुक्त वाक्य।

(ग) सरल वाक्य। (घ) इच्छावाचक वाक्य।

(iv) घंटी बजते ही छात्र कक्षा में चले गए। इस वाक्य का मिश्र वाक्य होगा—

(क) घंटी बजी और छात्र कक्षा में चले गए। (ख) घंटी बजने पर छात्र कक्षा में चले गए।

(ग) जैसे ही घंटी बजी, छात्र कक्षा में चले गए। (घ) घंटी बज गई है इसलिए छात्र कक्षा में चले गए।

(v) 'सीता ने कहा कि वह लिखेगी' इसमें रेखांकित उपवाक्य का भेद होगा—

(क) संज्ञा उपवाक्य। (ख) विशेषण उपवाक्य।

(ग) क्रिया–विशेषण उपवाक्य। (घ) प्रधान उपवाक्य।

4. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) गरीबों का दर्द मुझसे देखा नहीं जाता—

(क) कर्तृवाच्य। (ख) भाववाच्य।

(ग) कर्मवाच्य। (घ) ये सभी।

(ii) भारतीय टीम खूब अच्छा खेली—

(क) कर्मवाच्य। (ख) कर्तृवाच्य।

(ग) भाववाच्य। (घ) इनमें से कोई नहीं।

(iii) उस आदमी से कठिनाई से चला गया। इस वाक्य का कर्तृवाच्य होगा—

(क) उस आदमी के द्वारा कठिनाई से चला गया। (ख) वह आदमी कठिनाई से चलता है।

(ग) वह आदमी कठिनाई से चला। (घ) वह आदमी कठिनाई से चलेगा।

(iv) मेरा मित्र इसी समस्या पर विचार कर रहा है। इस वाक्य का भाववाच्य होगा—

(क) मेरे मित्र से इसी समस्या पर विचार किया जाता है। (ख) मेरे मित्र से इसी समस्या पर विचार किया जा रहा है।

(ग) मेरा मित्र इसी समस्या पर विचार करेगा। (क) यह समस्या मेरे मित्र के द्वारा विचार करने योग्य है।

(v) वाच्य के भेद हैं—

(क) चार। (ख) पाँच।

(ग) दो। (घ) तीन।

5. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) खेल रहा था—

(क) क्रिया, अकर्मक, एकवचन, पुल्लिंग, पूर्ण भूतकाल।

(ख) क्रिया, सकर्मक (कर्म–क्रिकेट), एकवचन, पुल्लिंग, अपूर्ण भूतकाल।

(ग) क्रिया, अकर्मक, एकवचन, पुल्लिंग, आसन्न भूतकाल।

(घ) क्रिया, सकर्मक (कर्म–क्रिकेट), एकवचन, स्त्रीलिंग, भूतकाल।

(ii) दरवाजे—

(क) संज्ञा, व्यक्तिवाचक, पुल्लिंग, एकवचन, अपादानकारक।

(ख) संज्ञा, जातिवाचक, पुल्लिंग, बहुवचन, करणकारक।

(ग) संज्ञा, व्यक्तिवाचक, पुल्लिंग, बहुवचन, अपादानकारक।

(घ) संज्ञा, जातिवाचक, पुल्लिंग, एकवचन, अपादानकारक।

(iii) कोई—

(क) सर्वनाम, अनिश्चयवाचक, पुल्लिंग, एकवचन। (ख) सर्वनाम, निश्चयवाचक, पुल्लिंग, एकवचन।

(ग) संज्ञा, जातिवाचक, पुल्लिंग, एकवचन। (घ) संज्ञा, व्यक्तिवाचक, पुल्लिंग, एकवचन।

(iv) अभी–अभी—

(क) अव्यय, क्रिया–विशेषण, कालवाचक। (ख) अव्यय, क्रिया–विशेषण, रीतिवाचक।

(ग) विशेषण, परिमाणवाचक, एकवचन, पुल्लिंग। (घ) अव्यय, क्रिया–विशेषण, स्थानवाचक।

(v) वह कार मेरे पिताजी की है—

(क) सर्वनाम, पुरुषवाचक, अन्य पुरुष, पुल्लिंग, एकवचन। (ख) विशेषण, सार्वनामिक, 'कार'–विशेष्य, स्त्रीलिंग, एकवचन।

(ग) सर्वनाम, पुरुषवाचक, अन्य पुरुष, स्त्रीलिंग, एकवचन। (घ) विशेषण, गुणवाचक, 'कार–विशेष्य, स्त्रीलिंग, एकवचन।

6. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) काव्य–पंक्तियों में निहित रस पहचान कर सही विकल्प छाँटिए—

निसदिन बरसत नैन हमारे,
सदा रहत वर्षा ऋतु हम पर जब से स्याम सिधारे।

(क) संयोग शृंगार। (ख) वियोग शृंगार।
(ग) करुण रस। (घ) वात्सल्य रस।

(ii) करुण और अद्‌भुत रसों का स्थायी भाव लिखिए—

(क) शोक तथा विस्मय। (ख) रति तथा विस्मय।
(ग) शोक तथा उत्साह। (घ) हास तथा क्रोध।

(iii) विभाव किसे कहते हैं?

(क) स्थायी भाव को पुष्ट करने वाले भाव। (ख) हृदय में मूल रूप से विद्यमान रहने वाले भाव।
(ग) हृदय के भावों को जाग्रत करने वाले कारण। (घ) रस निष्पत्ति।

(iv) शांत रस का स्थायी भाव क्या है?

(क) शोक। (ख) इष्टदेव विषयक रति।
(ग) निर्वेद या वैराग्य। (घ) वत्सल।

(v) रसराज किसे कहते हैं?

(क) वीर रस। (ख) हास्य रस।
(ग) भक्ति रस। (घ) शृंगार रस।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

बार–बार सोचते, क्या होगा उस कौम का जो अपने देश की खातिर घर गृहस्थी–जवानी–जिन्दगी सब कुछ होम कर देने वालों पर हँसती है और अपने लिए बिकने के मौके ढूँढ़ती है। दुःखी हो गए। पंद्रह दिन बाद फिर उसी कस्बे से गुजरे। कस्बे में घुसने से पहले ही ख्याल आया कि कस्बे की हृदय–स्थली में सुभाष की प्रतिमा अवश्य ही प्रतिष्ठापित होगी, लेकिन सुभाष की आँखों पर चश्मा नहीं होगा। क्योंकि मास्टर बनाना भूल गया।.....और कैप्टन मर गया। सोचा आज वहाँ रुकेंगे नहीं, पान भी नहीं खाएँगे, मूर्ति की तरफ देखेंगे भी नहीं, सीधे निकल जाएँगे। ड्राइवर से कह दिया, चौराहे पर रुकना नहीं, आज बहुत काम है, पान आगे कहीं खा लेंगे।

(i) हालदार साहब दुखी थे, क्योंकि—

(क) कैप्टन मर गया था।
(ख) सुभाष की प्रतिमा की आँखों पर चश्मा नहीं होगा।
(ग) कुछ लोग देश की खातिर अपना सर्वस्व बलिदान कर देने वालों पर हँसते थे।
(घ) वह बहुत व्यस्त थे।

(ii) अपने लिए बिकने के मौके ढूँढ़ते हैं—

(क) स्वार्थी और मतलबी लोग। (ख) देशभक्त।
(ग) कस्बे में रहने वाले। (घ) देश की खातिर अपना सब कुछ होम कर देने वाले।

(iii) हालदार साहब कितने दिन बाद फिर उसी कस्बे से गुजरे?

(क) बहुत दिन बाद। (ख) महीनों बाद।
(ग) पंद्रह दिन बाद। (घ) पंद्रह वर्ष बाद।

(iv) हालदार साहब ने क्या सोचा था?

(क) मास्टर चश्मा लगाना भूल गया। (ख) कैप्टन चश्मेवाला मर गया।
(ग) कि आज वह मूर्ति की तरफ नहीं देखेंगे। (घ) कि मूर्ति की आँखों पर चश्मा नहीं होगा।

(v) 'हृदयस्थली' शब्द का अर्थ है—

(क) चौराहा। (ख) हृदय का स्थल।
(ग) अत्यंत प्रिय। (घ) हृदय में रहने वाला।

8. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) गृहस्थ होकर भी बालगोबिन भगत साधु थे, क्योंकि—

(क) वे खेतीबारी करते थे। (ख) वे भजन गाते थे।

(ग) उनका आचरण साधुओं जैसा था। (घ) वे दूसरे के खेत में शौच नहीं जाते थे।

(ii) 'नेताजी का चश्मा' पाठ के माध्यम से हालदार साहब के स्वभाव में इनमें से कौन–सी विशेषता नहीं दिखाई देती?

(क) हालदार साहब संवेदनशील थे। (ख) वे देश के प्रति सच्ची श्रद्धा रखते थे।

(ग) वे भावुक हृदय के धनी थे। (घ) उन्हें नेताजी की मूर्ति पर सरकंडे का चश्मा पसंद नहीं था।

9. निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

हमारैं हरि हारिल की लकरी।
मन क्रम वचन नंद–नंदन उर, यह दृढ़ करि पकरी।
जागत सोवत, स्वप्न दिवस–निसि,
कान्ह–कान्ह जकरी।
सुनत जोग लागत है ऐसो, ज्यों करुई ककरी।
सु तौ ब्याधि हमकौं, लै आए, देखी सुनी न करी।
यह तौ 'सूर' तिनहिं लै सौंपौ, जिनके मन चकरी।।

(i) गोपियों ने हारिल की लकरी कहा है—

(क) उद्धव को। (ख) हारिल पक्षी को।

(ग) श्रीकृष्ण को। (घ) स्वयं को।

(ii) गोपियों ने योग की तुलना किससे की है?

(क) कड़वी ककड़ी से। (ख) नंद–नंदन से।

(ग) कृष्ण के प्रति प्रेम से। (घ) अपने हृदय से।

(iii) गोपियाँ 'व्याधि' बता रही हैं—

(क) हारिल की लकड़ी को। (ख) कड़वी ककड़ी को।

(ग) चकरी को। (घ) उद्धव द्वारा दिए गए योग–संदेश को।

(iv) 'हमारैं हरि हारिल की लकरी'—इस पंक्ति में अलंकार है—

(क) यमक। (ख) श्लेष।

(ग) अनुप्रास। (घ) उत्प्रेक्षा।

(v) उपर्युक्त पद में प्रयुक्त भाषा है—

(क) ब्रजभाषा। (ख) अवधी।

(ग) बुंदेली। (घ) खड़ी बोली।

10. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) श्रीराम के स्वभाव में अनेक गुण थे। ऐसा कौन–सा अवगुण है जो उनमें नहीं था?

(क) विनम्रता। (ख) सहनशीलता।

(ग) वाक्पटुता। (घ) अहंकार।

(ii) सूरदास के भ्रमरगीत की विभिन्न विशेषताएँ हैं। कौन–सा कथन सही नहीं है?

(क) गोपियाँ कृष्ण की दीवानी हैं और उनका प्रेम अनन्य, सम्पूर्ण और अनूठा है।

(ख) भ्रमरगीत में शुद्ध साहित्यिक ब्रजभाषा का प्रयोग हुआ है।

(ग) इसमें योग–साधना के सम्मुख प्रेम को तुच्छ दिखाया गया है।

(घ) भ्रमरगीत में व्यंग्य, कटाक्ष, उलाहना, निराशा आदि मनोभाव प्रकट होते हैं।

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Sample Paper 3

Hindi 'A'

खण्ड – (क)

(अपठित अंश)

1. नीचे दो अपठित गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के सही विकल्प चुनकर लिखिए—

हमारी सामाजिक व्यवस्था में एक ऐसी अच्छाई थी, जिसे यदि निभाया जाए तो बहुत अच्छा होगा। मुहल्ले, टोले, गाँव, कस्बे आदि में दूसरों को सहारा देने, दुश्मन को भी पारिवारिक कष्ट में जानकर उसे मदद करने की स्वस्थ परम्परा थी जो अब लगभग समाप्त हो गई है। कुछ तो शहरी संस्कृति और कुछ निहित स्वार्थों की मुठभेड़ इन्हें खत्म कर रही है। इसके बावजूद भी इक्का–दुक्का ऐसी खबरें दिखाई दे जाती हैं तो मन को शांति मिलती है कि हमारे देश के छोटे–छोटे गाँव कस्बों के नितांत साधारण लोग इंसानियत के तौर पर हमदर्दी, प्यार, आपसी समझदारी और सहारे से राष्ट्र–निर्माण के उस पुनीत कार्य में लगे हुए हैं जो धुआँधार भाषणों से ज्यादा ठोस और महत्वपूर्ण है। इस देश के असली निर्माता वे ही लोग हैं जो प्रचार से दूर अपने कार्य में जुटे हुए हैं। झूठ और द्वेषयुक्त प्रचार के कोलाहल में मन की सच्चाई, ईमानदारी, नेकी और मानवीयता के बीज ऐसे ही लोग बो रहे हैं। यदि देश के एक भी बच्चे के मन में उन्होंने यह गुण जगाया तो यह वोट एकत्र करने से अधिक सराहनीय कार्य होगा।

(i) हमारी सामाजिक व्यवस्था की यह अच्छाई अब लगभग समाप्त होती जा रही है—
(क) किसी को कष्ट में जानकर मुँह मोड़ लेना। (ख) स्वार्थ में लिप्त रहना।
(ग) दूसरों को सहारा देना। (घ) किसी की भी मदद न करना।

(ii) सामाजिक सहकारिता समाप्त होने के क्या कारण हैं?
(क) शहरी संस्कृति और स्वार्थ। (ख) सामाजिक व्यवस्था।
(ग) द्वेषयुक्त प्रचार। (घ) धुआँधार भाषण।

(iii) इंसानियत के तौर पर इनमें से क्या नहीं करना चाहिए?
(क) हमदर्दी। (ख) प्यार।
(ग) आपसी समझदारी। (घ) द्वेषयुक्त प्रचार।

(iv) देश के असली निर्माता बीज बो रहे हैं—
(क) सच्चाई के। (ख) ईमानदारी के।
(ग) नेकी और मानवीयता के। (घ) इन सभी के।

(v) सामाजिकता कहाँ नहीं दिखाई देती है?
(क) मुहल्ले के लोगों में। (ख) शहरी संस्कृति में।
(ग) गाँव के लोगों में। (घ) कस्बों में।

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आतंकवाद एक अत्यंत भयावह समस्या है जिसमें पूरा विश्व ही जूझ रहा है। आतंकवाद केवल विकासशील या निर्धन राष्ट्रों की समस्या हो, ऐसी बात नहीं। विश्व का सबसे शक्तिशाली और समृद्ध राष्ट्र अमेरिका भी इससे बच नहीं पाया है। कुछ वर्षों पहले जिस प्रकार उस पर आतंकवादी हमला हुआ, उससे उसकी जड़ें हिल गईं।

'आतंक का अर्थ है—भय अथवा दहशत। अमानवीय तथा भय उत्पन्न करने वाली ऐसी गतिविधि जिसका उद्देश्य निजी स्वार्थ पूर्ति या अपना दबदबा बनाए रखने के उद्देश्य से या बदला लेने की भावना से किया गया काम हो—आतंकवाद कही जाती है। इस प्रकार आतंकवाद मूल में कुत्सित स्वार्थ–वृत्ति, घृणा, द्वेष, कटुता और शत्रुता की भावना, विरोध की भावना होती है। अपना राजनीतिक दबदबा बनाए रखना, अपने धर्म को अन्य धर्मों से श्रेष्ठ सिद्ध करने की भावना तथा कट्टर धर्मांधता भी आतंकवाद को बढ़ावा देता है। आज विश्व में जिस प्रकार का आतंकवाद फल–फूल रहा है, उसके पीछे सांप्रदायिक धर्मांधता एवं कट्टरता एक प्रमुख कारण है। आज विश्व में कुछ इस प्रकार के संगठन विद्यमान हैं जिनका उद्देश्य ही आतंकवाद को फैलाना है। वे इस आतंकवाद के सहारे ही अपना वर्चस्व सिद्ध करना चाहते हैं। इस प्रकार के संगठन युवाओं को दिशा भ्रमित करके, उन्हें धर्म, राजनीति या सांप्रदायिकता के नाम पर गुमराह करके उनके हृदय में क्रूरता, कट्टरता

तथा घृणा का जहर घोलकर बेगुनाहों का खून बहाने के लिए प्रेरित करने में सफल हो जाते हैं। 'फिदाइन' हमले इस बात का प्रमाण हैं कि ये दिशा भ्रमित युवक अपनी जान पर खेलकर भी खून की होली खेलने में नहीं झिझकते और मासूमों का खून बहाकर भी इनका कलेजा नहीं पसीजता। इनका हृदय पाषण जैसा कठोर हो जाता है, इनकी मानवीय चेतना लुप्त हो जाती है और वे किसी भी प्रकार का घिनौना कृत्य करने में स्वयं को धन्य समझते हैं।

ओसामा बिन लादेन जैसे आतंकवादी आज पूरे विश्व के लिए आतंक का चेहरा बने हुए हैं। अमेरिका को भी उसे पकड़ने में दस सालों से ज्यादा लगे। आज भी उसका आतंकी नेटवर्क पूरे विश्व में फैला हुआ है। अमेरिका के दो टावरों को ध्वस्त करने की योजना भी उसी ने बनाई थी।

(i) आतंकवाद क्या है?
(क) अमानवीय कृत्य। (ख) भय उत्पन्न करने वाली गतिविधि।
(ग) (क) तथा (ख) दोनों। (घ) बहादुरी से युद्ध करना।

(ii) 'आतंक' का क्या अर्थ है?
(क) भय अथवा दहशत। (ख) वीरता।
(ग) आतंकवाद। (घ) साहसपूर्ण कार्य।

(iii) आतंकवाद के मूल में होते हैं—
(क) कुत्सित स्वार्थ–वृत्ति। (ख) घृणा और द्वेष की भावना।
(ग) धर्मांधता। (घ) इनमें से सभी।

(iv) आतंकवाद से विश्व के कौन–से राष्ट्र जूझ रहे हैं?
(क) विकासशील देश। (ख) निर्धन राष्ट्र।
(ग) शक्तिशाली और समृद्ध राष्ट्र। (घ) इनमें से सभी।

(v) उपर्युक्त गद्यांश के लिए उचित शीर्षक चुनिए—
(क) विश्व की भयावह समस्या। (ख) आतंकवाद।
(ग) आतंक। (घ) आतंकवाद–विश्वव्यापी समस्या।

2. नीचे दो काव्यांश दिए गए हैं। किसी एक काव्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

सच हम नहीं, सच तुम नहीं
सच है सतत संघर्ष हो।
संघर्ष से हटकर जिए तो क्या जिए हम या कि तुम,
जो नत हुआ वह मृत हुआ ज्यों वृन्त से
झरकर कुसुम। जो पंथ भूल रूका नहीं
जो हार देख झुका नहीं।
जिसने मरण को भी लिया हो जीत है जीवन वही।
सच हम नहीं सच तुम नहीं।
ऐसा करो जिससे न प्राणों में कहीं जड़ता रहे।
जो भी जहाँ चुपचाप अपने आपसे लड़ता रहे।
जो भी परिस्थितियाँ मिलें।
काँटे चुभें, कलियाँ खिलें।
टूटे नहीं इंसान, बस! संदेश यौवन का यही।
सच हम नहीं सच, तुम नहीं।

(i) कवि के अनुसार जीवन का सच है—
(क) हम। (ख) तुम।
(ग) संघर्ष। (घ) हम और तुम।

(ii) कवि के अनुसार जीत उसी की होती है, जो—
(क) समस्याओं से नहीं घबराता। (ख) हर परिस्थिति को चुनौती के रूप में स्वीकार नहीं करता।
(ग) संघर्षों से डरकर पीछे हट जाता है। (घ) जो डर जाता है।

(iii) 'कुसुम' शब्द का पर्यायवाची इनमें से कौन–सा शब्द नहीं है?
(क) सुमन। (ख) प्रसून।
(ग) पुहुप। (घ) गुलाब।

(iv) काव्यांश में प्रयुक्त 'हार' शब्द का क्या अर्थ है?

(क) फूलों की माला। (ख) हार जाना।

(ग) थकना। (घ) प्रत्येक।

(v) उपर्युक्त काव्यांश के माध्यम से कवि क्या संदेश देना चाहता है—

(क) संसार में कुछ भी सत्य नहीं है।

(ख) किसी को अपना लक्ष्य नहीं भूलना चाहिए।

(ग) वृक्ष से झड़कर फूल मुरझा जाता है।

(घ) हमें विषम परिस्थितियों में हार नहीं माननी चाहिए।

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जिसकी रज में लोट–लोटकर बड़े हुए हैं।
घुटनों के बल सरक–सरककर खड़े हुए हैं।।
परमहंस सम बाल्यकाल में सब सुख पाए।
जिसके कारण धूल भरे हीरे कहलाए।।
हम खेले–कूदे हर्षयुत, जिसकी प्यारी गोद में।
हे मातृभूमि तुझको निरख, मग्न क्यों न हों मोद में?
पाकर तुझसे सभी सुखों को हमने भोगा।
तेरा प्रत्युपकार कभी क्या हमसे होगा?
तेरी ही यह देह, तुझी से बनी हुई है।
बस तेरे ही सुरस–सार से सनी हुई है।।
फिर अंत समय तू ही इसे अचल देख अपनाएगी।
हे मातृभूमि, यह अंत में तुझमें ही मिल जाएगी।।
जिस पृथ्वी में मिले हमारे पूर्वज प्यारे।
उससे हे भगवान! कभी हम रहें न न्यारे।।
लोट–लोटकर वहीं हृदय को शांत करेंगे,
उसमें मिलते समय मृत्यु से नहीं डरेंगे।।
उस मातृभूमि की धूल में, जब पूरे सन जाएँगे।
होकर भव–बंधन–मुक्त हम, आत्मरूप बन जाएँगें।।

(i) 'जिसकी रज में लोट–लोटकर बड़े हुए हैं'—इस पंक्ति में किसकी रज के बारे में बात हो रही है?

(क) मातृभूमि की रज। (ख) गाँव की रज।

(ग) धरती की रज। (घ) अपने घर की रज।

(ii) 'धूल भरे हीरे' किसे कहा गया है?

(क) धूल में खेलने वाले। (ख) धूल–मिट्टी उड़ाने वाले।

(ग) धूल से सने गंदे बच्चे। (घ) मातृभूमि की अमूल्य संतान।

(iii) इस कविता में किस पंक्ति से अतीत के प्रति प्रेम प्रकट हो रहा है?

(क) तेरी ही यह देह तुझी से बनी हुई है। (ख) जिस पृथ्वी में मिले हमारे पूर्वज प्यारे।

(ग) अंत समय तू ही इसे अचल देख अपनाएगी। (घ) परमहंस सम बाल्यकाल में सब सुख पाए।

(iv) प्रस्तुत कविता का मूलभाव है—

(क) मातृभूमि के गौरव का गान करना। (ख) मातृभूमि के वीरों का गुणगान करना।

(ग) मातृभूमि की उदारता का बखान करना। (घ) मातृभूमि के सौंदर्य का गुणगान करना।

(v) प्रस्तुत काव्यांश के लिए उपर्युक्त शीर्षक चुनिए—

(क) मातृभूमि मेरी। (ख) देशप्रेम।

(ग) मेरी मातृभूमि। (घ) मातृभूमि।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) जो व्यक्ति परिश्रमी होता है, वह अवश्य सफल होता है—

(क) सरल वाक्य। (ख) संयुक्त वाक्य।

(ग) मिश्र वाक्य। (घ) इनमें से कोई नहीं।

(ii) शशि गा, नाच रही है। इस वाक्य का संयुक्त वाक्य होगा—

(क) शशि गा रही है। (ख) शशि नाच रही है।

(ग) शशि गा नहीं रही है। (घ) शशि गा और नाच रही है।

(iii) रोगी को दवाई पीते ही उल्टी हो गई—इसका मिश्र वाक्य होगा—

(क) रोगी ने दवाई पी इसलिए उल्टी हो गई। (ख) रोगी ने जैसे ही दवाई पी, उसे उल्टी हो गई।

(ग) न रोगी दवाई पीता, न उसे उल्टी होती। (घ) रोगी को उल्टी हो गई इसलिए उसने दवाई नहीं पी।

(iv) राम ने कहा कि हम लड़ाई नहीं चाहते—

(क) संज्ञा उपवाक्य। (ख) विशेषण उपवाक्य।

(ग) क्रिया–विशेषण उपवाक्य। (ख) प्रधान उपवाक्य।

(v) सरल वाक्य में—

(क) दो या दो से अधिक वाक्य समुच्चयबोधक के द्वारा जुड़े होते हैं।

(ख) एक ही उद्देश्य एवं विधेय होता है।

(ग) एक मुख्य उपवाक्य होता है और बाकी आश्रित उपवाक्य होते हैं।

(घ) एक आश्रित उपवाक्य और अन्य प्रधान उपवाक्य होते हैं।

4. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) रमा ने मधुर गीत गाए—

(क) कर्मवाच्य। (ख) कर्तृवाच्य।

(ग) भाववाच्य। (घ) इनमें से कोई नहीं।

(ii) कलाकार द्वारा मूर्ति गढ़ी जाती है—

(क) कलाकार मूर्ति गढ़ता है। (ख) कलाकार ने मूर्ति गढ़ी।

(ग) कलाकार मूर्ति गढ़ेगा। (घ) कलाकार द्वारा मूर्ति गढ़ी जाएगी।

(iii) मैं उठ नहीं सकता—

(क) कर्मवाच्य। (ख) भाववाच्य।

(ग) कर्तृवाच्य। (घ) इनमें से तीनों।

(iv) अध्यापक कक्षा में पढ़ा रहे हैं—

(क) अध्यापक कक्षा में पढ़ाते हैं। (ख) अध्यापक द्वारा कक्षा में पढ़ाया जा रहा है।

(ग) अध्यापक से कक्षा में पढ़ाया जाता है। (घ) अध्यापक ने कक्षा में पढ़ाया।

(v) इनमें से कौन–सा वाक्य भाववाच्य का नहीं है?

(क) रमेश से पढ़ा नहीं जाता। (ख) अश्मित से दौड़ा जाता है।

(ग) मुझसे चला नहीं जाता। (घ) महेश दौड़ नहीं सकता।

5. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) एवरेस्ट—

(क) संज्ञा, व्यक्तिवाचक, एकवचन, पुल्लिंग, कर्ताकारक। (ख) संज्ञा, जातिवाचक, एकवचन, पुल्लिंग, कर्ताकारक।

(ग) संज्ञा, भाववाचक, एकवचन, पुल्लिंग, कर्मकारक। (घ) संज्ञा, व्यक्तिवाचक, एकवचन, स्त्रीलिंग, कर्ताकारक।

(ii) पुस्तकें—

(क) संज्ञा, भाववाचक, एकवचन, स्त्रीलिंग। (ख) संज्ञा, व्यक्तिवाचक, बहुवचन, पुल्लिंग।

(ग) संज्ञा, व्यक्तिवाचक, बहुवचन, स्त्रीलिंग। (घ) संज्ञा, जातिवाचक, बहुवचन, स्त्रीलिंग।

(iii) उठता—

(क) क्रिया, सकर्मक, पुल्लिंग, एकवचन, वर्तमान काल। (ख) क्रिया, अकर्मक, पुल्लिंग, एकवचन, वर्तमान काल।

(ग) प्रेरणार्थक क्रिया, पुल्लिंग, एकवचन, वर्तमान काल। (घ) क्रिया, सकर्मक, पुल्लिंग, बहुवचन, भूत काल।

(iv) चतुर—

(क) विशेषण, सार्वनामिक, पुल्लिंग, एकवचन। (ख) विशेषण, गुणवाचक, पुल्लिंग, बहुवचन।

(ग) विशेषण, गुणवाचक, पुल्लिंग, एकवचन। (घ) विशेषण, परिमाणवाचक, पुल्लिंग, एकवचन।

(v) वह बहुत धीरे–धीरे चलता है—

धीरे–धीरे—

(क) क्रिया.विशेषण, कालवाचक, 'चलता है' क्रिया का विशेष्य।

(ख) क्रिया.विशेषण, रीतिवाचक, 'चलता है' क्रिया की विशेषता।

(ग) क्रिया.विशेषण, स्थानवाचक, 'चलता है' क्रिया की विशेषता।

(घ) क्रिया.विशेषण, परिमाणवाचक, 'चलता है' क्रिया की विशेषता।

6. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) शांत रस का स्थायी भाव है—

(क) शोक। (ख) क्रोध।

(ग) निर्वेद। (घ) वत्सल।

(ii) 'रे नृप' बालक काल बस बोलत तोहिं न संभार' पंक्ति में कौन-सा रस है?

(क) रौद्र रस। (ख) वीर रस।

(ग) भयानक रस। (घ) वीभत्स रस।

(iii) 'यशोदा हरि पालने झुलावे'—पंक्ति में रस बताइए—

(क) श्रृंगार रस। (ख) करुण रस।

(ग) वात्सल्य रस। (घ) शांत रस।

(iv) इस रस का स्थायी भाव 'हास' है—

(क) वीर रस। (ख) हास्य रस।

(ग) करुण रस। (घ) वीभत्स रस।

(v) प्राचीन समय में रस के .....भेद माने जाते थे।

(क) दस। (ख) ग्यारह।

(ग) नौ। (घ) सात।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

किन्तु खेतीबारी करते, परिवार रखते भी, बालबगोबिन भगत साधु थे—साधु की सब परिभाषाओं में खरे उतरने वाले। कबीर को 'साहब' मानते थे, उन्हीं के गीतों को गाते, उन्हीं के आदेशों पर चलते। कभी झूठ नहीं बोलते, खरा व्यवहार रखते। किसी से भी दो टूक बात करने में संकोच नहीं करते, न किसी से खामखा झगड़ा मोल लेते। किसी की चीज़ नहीं छूते, न बिना पूछे व्यवहार में लाते। इस नियम को कभी–कभी इतनी बारीकी तक ले जाते कि लोगों को कुतूहल होता! कभी वह दूसरे के खेत में शौच के लिए भी नहीं बैठते! वह गृहस्थ थे लेकिन उनकी सब चीज़ 'साहब' की थी। जो कुछ खेत में पैदा होता, सिर पर लादकर पहले उसे साहब के दरबार में ले जाते—जो उनके घर से चार कोस दूरी पर था—एक कबीरपंथी मठ से मतलब! वह दरबार में 'भेंट' रूप रख लिया जाकर 'प्रसाद' रूप में जो उन्हें मिलता, उसे घर लाते और उसी से गुज़र चलाते !

(i) लेखक ने बालगोबिन भगत को साधु क्यों कहा है?

(क) वे साधु के समान दिखते थे।

(ख) वे मोह–माया से दूर थे।

(ग) वे सच्चे साधुओं जैसा ही उत्तम आचार–विचार रखते थे।

(घ) वे किसी से झगड़ा नहीं करते थे।

(ii) बालगोबिन भगत का कौन–सा कार्य–व्यवहार लोगों के आश्चर्य का विषय था?

(क) जीवन के सिद्धांतों और आदर्शों का गहराई से अपने आचरण में पालन करना।

(ख) गीत गाते रहना।

(ग) किसी से झगड़ा न करना।

(घ) अपना काम स्वयं करना।

(iii) बालगोबिन भगत कबीर के आदर्शों पर चलते थे क्योंकि–

(क) कबीर भगवान् का रूप थे। (ख) वे कबीर की विचारधारा से प्रभावित थे।

(ग) कबीर उनके गाँव के मुखिया थे। (घ) कबीर उनके मित्र थे।

(iv) बालगोबिन भगत के खेत में जो कुछ पैदा होता, उसे वे सर्वप्रथम किसे भेंट कर देते?

(क) गरीबों को। (ख) मन्दिर में।

(ग) घर में। (घ) कबीरपंथी मठ में।

(v) 'वह गृहस्थ थे; लेकिन उनकी सब चीज़ 'साहब' की थी।' यहाँ 'साहब' से क्या आशय है?—

(क) गुरु। (ख) मुखिया।

(ग) कबीर। (घ) भगवान्।

8. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) बालगोबिन भगत की मृत्यु को गौरवशाली कहा जा सकता है, क्योंकि—

(क) उनका जीवन गरीबी में गुजरा।

(ख) खेती करना उनका व्यवसाय था।

(ग) वे जीवन–पर्यन्त कठिन नियमों का पालन करते हुए सद्कर्मों में लगे रहे।

(घ) वे अपनी पतोहू का पुनर्विवाह करना चाहते थे।

(ii) 'नेताजी का चश्मा' पाठ के माध्यम से हालदार साहब के स्वभाव में इनमें से कौन–सी विशेषता नहीं दिखाई देती?

(क) हालदार साहब संवेदनशील थे। (ख) वे देश के प्रति सच्ची श्रद्धा रखते थे।

(ग) वे भावुक हृदय के धनी थे। (घ) उन्हें नेताजी की मूर्ति पर सरकंडे का चश्मा पसंद नहीं था।

9. निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

नाथ संभुधनु भंजनिहारा। होइहि केउ एक दास तुम्हारा।।
आयसु काह कहिअ किन मोही। सुनि रिसाई बोले मुनि कोही।।
सेवकु सो जो करै सेवकाई। अरिकरनी करि करिअ लराई।।
सुनहु राम जेहि सिवधनु तोरा। सहसंबाहु सम सो रिपु मोरा।।
सो बिलगाउ बिहाइ समाजा। न त मारे जैहहिं सब राजा।।
सुनि मुनिबचन लखन मुसुकाने। बोले परसुधरहि अवमाने।।
बहु धनुहीं तोरी लरिका। कबहुँ न असि रिस कीन्हि गोसाईं।।
एहि धनु पर ममता केहि हेतू। सुनि रिसाइ कह भृगुकुलकेतू।।
रे नृपबालक कालबस बोलत तोहि न सँभार।
धनुही सम त्रिपुरारिधनु बिदित सकल संसार।।

(i) धनुष के टूट जाने पर श्रीराम ने परशुराम से कहा—

(क) इस धनुष को तोड़ने वाला आपका ही कोई दास होगा।

(ख) यह धनुष मैंने तोड़ा है।

(ग) यह धनुष मैंने नहीं तोड़ा है।

(घ) यह धनुष आपके किसी शत्रु ने तोड़ा है।

(ii) श्रीराम के वचनों से परिचय मिलता है—

(क) उनकी विनयशीलता का। (ख) उनकी निर्भयता का।

(ग) उनकी सत्यप्रियता का। (घ) इन सभी गुणों का।

(iii) 'सेवकु सो जो करै सेवकाई'—यह पंक्ति किसके द्वारा कही गई है?

(क) श्रीराम के द्वारा। (ख) लक्ष्मण के द्वारा।

(ग) परशुराम के द्वारा। (घ) विश्वामित्र के द्वारा।

(iv) परशुराम के अनुसार लक्ष्मण वश में हैं—

(क) श्रीराम के। (ख) मृत्यु के।

(ग) विश्वामित्र के। (घ) शिवजी के।

(v) यहाँ प्रयुक्त 'त्रिपुरारि' का संधि–विच्छेद होगा—

(क) त्रिपुर + अरि। (ख) त्रि + पुरारि।

(ग) त्रिपुरा + रि। (घ) त्रिपु + रारि।

10. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) परशुराम के क्रोध करने पर लक्ष्मण ने धनुष के टूट जाने के लिए कई तर्क दिए। इनमें से गलत तर्क कौन–सा है?

(क) हमारी दृष्टि में सभी धनुष एक समान हैं।

(ख) बचपन में हमने बहुत से धनुष तोड़े थे, तब किसी ने हम पर क्रोध नहीं किया।

(ग) यह तो राम के स्पर्श–मात्र से ही टूट गया, इसमें उनका कोई दोष नहीं है।

(घ) धनुष को तोड़ने वाला कोई तुम्हारा दास होगा।

(ii) गोपियों द्वारा उद्धव को 'भाग्यवान' कहने के पीछे क्या कारण हैं—

(क) क्योंकि उद्धव श्रीकृष्ण के साथ रहते थे।

(ख) क्योंकि वे उनके लिए योग का संदेश लेकर आए थे।

(ग) गोपियाँ अप्रत्यक्ष रूप से उद्धव को 'अभागा' या 'भाग्यहीन' कहना चाहती हैं।

(घ) उद्धव प्रेम के प्रति पूरी तरह अनासक्त हैं।

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Sample Paper 4

Hindi 'A'

खण्ड – (क)

(अपठित अंश)

1. नीचे दो अपठित गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के सही विकल्प चुनकर लिखिए—

वर्तमान युग में जीवन मूल्यों में भारी परिवर्तन आ रहे हैं। समाज की आस्थाएं और विश्वास तीव्र गति से बदल रहे हैं। आज का मानव आत्म–केंद्रित होता जा रहा है। बच्चों एवं मां–बाप में पीढ़ी के अंतर की दुहाई दी जाती है। बच्चों को आधुनिक और बुजुर्गों को दकियानूसी कहा जाता है।

माता–पिता बहुत लाड़–प्यार से अपनी संतान का पालन–पोषण करते हैं। उनका पूरा प्रयत्न रहता है कि उनकी संतान को किसी प्रकार के अभाव का सामना नहीं करना पड़े। वे स्वयं कष्ट सह लेते हैं, पर संतान को सुखी रखते हैं। ऐसी स्थिति में बड़े होने पर बच्चो का भी अपने माता–पिता के प्रति विशेष कर्त्तव्य हो जाता है। प्रायः देखा जाता है बच्चे अपने कर्त्तव्य का पालन ठीक प्रकार से नहीं कर पाते हैं। पहले अपनी पढ़ाई–लिखाई और बाद में अपने उज्ज्वल भविष्य की चिंता में वे अपने कर्तव्यों से विमुख होने लगते हैं। बच्चों के द्वारा मिली उपेक्षा से माता–पिता को बहुत मानसिक आघात पहुँचता है।

बच्चों को यह बात सदैव स्मरण रखनी चाहिए कि इन्हीं मां–बाप ने उन्हें इस योग्य बनाया है कि वे सफलतापूर्वक अपना जीवन जी सकें। थोड़ा–बहुत जो अंतर दिखाई देता है वह समय के परिवर्तन के कारण है। यह भी सही है कि कुछ माता–पिता समय की धारा के अनुरूप अपने को बदल नहीं पाते, पर इसमें संतान के प्रति प्रेम भाव कम होने का भाव बिल्कुल नहीं होता। बच्चों को उनकी भावनाओं का आदर करना चाहिए।

अधेड़ावस्था और वृद्धावस्था में माँ–बाप को बच्चों की बहुत आवश्यकता होती है। वे उनकी ओर आशा भरी दृष्टि से देखते हैं। बच्चों का कर्त्तव्य है कि वे अपने माता–पिता को निराश न करें। केवल आर्थिक रूप से ही नहीं अपितु मानसिक और शारीरिक रूप से भी उन्हें माता–पिता की भरपूर सहायता करनी चाहिए। बच्चों को अपने माता–पिता का आदर और सम्मान करना चाहिए। तभी वे अपने बच्चों के आगे एक आदर्श संतान का उदाहरण प्रस्तुत कर सकेंगे।

(i) तीव्रगति से क्या बदल रहा है?
- (क) बुजुर्ग। (ख) बच्चे।
- (ग) माँ–बाप। (घ) समाज की आस्थाएँ और विश्वास।

(ii) वर्तमान युग में भारी परिवर्तन आ रहे हैं—
- (क) जीवन–मूल्यों में। (ख) कर्त्तव्य–पालन में।
- (ग) जीवन की आवश्यकताओं में। (घ) आदर्शों में।

(iii) माँ–बाप को बच्चों की बहुत आवश्यकता होती है—
- (क) जवानी में। (ख) अधेड़ावस्था में।
- (ग) वृद्धावस्था में। (घ) (ख) व(ग) दोनों में।

(iv) 'वे उनकी ओर आशा भरी दृष्टि से देखते हैं' वाक्य में 'वे' से तात्पर्य है—
- (क) बच्चे। (ख) माता–पिता।
- (ग) अधेड़ लोग। (घ) वृद्ध लोग।

(v) गद्यांश का उचित शीर्षक होगा—
- (क) माता–पिता का अपने बच्चों के प्रति कर्त्तव्य। (ख) आदर्श संतान।
- (ग) माता–पिता के प्रति बच्चों का कर्त्तव्य। (घ) बुजुर्गों की वर्तमान स्थिति।

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विज्ञान के द्वारा मनुष्य ने जिन चमत्कारों को प्राप्त किया है, उनमें दूरदर्शन का स्थान अत्यन्त महान् और उच्च है। दूरदर्शन आविष्कार 19वीं शताब्दी के आस–पास ही समझना चाहिए। टेलीविजन दूरदर्शन का अंग्रेजी नाम है। टेलीविजन का अविष्कार महान् वैज्ञानिक वेयर्ड ने किया है। टेलीविजन को सर्वप्रथम लंदन में सन् 1925 में देखा गया। लंदन के बाद इसका प्रचार–प्रसार इतना बढ़ता गया है कि आज यह विश्व के प्रत्येक भाग में बहुत लोकप्रिय हो गया है। भारत में टेलीविजन का आरंभ 15 सितम्बर सन् 1959 को हुआ। तत्कालीन राष्ट्रपति डॉ. राजेन्द्र प्रसाद ने आकाशवाणी के टेलीविजन विभाग का उद्घाटन किया था।

टेलीविजन या दूरदर्शन का शाब्दिक अर्थ है—दूर की वस्तुओं या पदार्थों का ज्यों का ज्यों आँखों द्वारा दर्शन करना। टेलीविजन का प्रवेश आज घर–घर हो रहा है। इसकी लोकप्रियता के कई कारणों में से एक कारण यह है कि एक रेडियो कैबिनेट आकार प्रकार से तनिक बड़ा होता है। इसके सभी सेट रेडियो के सेट से मिलते–जुलते हैं। इसे आसानी से एक जगह से दूसरी जगह या स्थान पर ले जाया जा सकता है। इसे देखने के लिए हमें न किसी प्रकार के चश्मे या मनोभाव या अध्ययन आदि आवश्यकताएँ पड़ती हैं। इसके लिए किसी विशेष वर्ग के दर्शक या श्रोता के चयन करने की आवश्यकता नहीं पड़ती है, अथवा इसे देखने वाले सभी वर्ग या श्रेणी के लोग हो सकते हैं।

टेलीविजन हमारे जीवन के प्रत्येक क्षेत्र को बड़ी ही गंभीरतापूर्वक प्रभावित करता है। यह हमारे जीवन के काम आने वाली हर वस्तु या पदार्थ की न केवल जानकारी देता है अपितु उनके कार्य–व्यापार, नीति, ढंग और उपाय को भी क्रमशः बड़ी ही आसानीपूर्वक हमें दिखाता है। इस प्रकार से दूरदर्शन हमें एक से एक बढ़कर जीवन की समस्याओं और घटनाओं को बड़ी ही सरलता के साथ आवश्यक रूप में प्रस्तुत करता है। जीवन से सम्बन्धित ये घटनाएँ–व्यापार कार्य आदि सभी कुछ न केवल हमारे आस–पास पड़ने के ही होते हैं, अपितु दूर–दराज के देशों और भागों से भी जुड़े होते हैं। ये किसी–न–किसी प्रकार से हमारे लिए जीवनोपयोगी सिद्ध होते हैं। इस दृष्टिकोण से हम यह कह सकते हैं कि दूरदर्शन हमारे लिए ज्ञानवर्द्धन का बहुत बड़ा साधन है। यह इसकी सामान्य रूपरेखा से लेकर गंभीर और विशिष्ट रूपरेखा को बड़ी ही सुगमतापूर्वक प्रस्तुत करता है। इस अर्थ से दूरदर्शन ही घर के चूल्हा–चाकी से लेकर अंतरिक्ष के कठिन ज्ञान की पूरी–पूरी जानकारी देता रहता है।

दूरदर्शन द्वारा हमें जो ज्ञान विज्ञान प्राप्त होते हैं। उनमें कृषि के ज्ञान विज्ञान का कम स्थान नहीं है। आधुनिक कृषि यंत्रों से होने वाली कृषि से सम्बन्धित जानकारी का लाभ शहरी कृषक से बढ़कर ग्रामीण क्षेत्र में रहने वाले कृषक अधिक उठाते हैं। इस तरह से कृषि क्षेत्र में होने वाले नवीन आविष्कारों, उपयोगिताओं, विभिन्न प्रकार के बीज, पशु-पक्षी, पेड़-पौधे, वनस्पतियों आदि का पूरा विवरण हमें दूरदर्शन से ही प्राप्त होता है।

(i) भारत में दूरदर्शन का आविष्कार कब हुआ?
(क) 19वीं शताब्दी में। (ख) सन् 1925 में।
(ग) 15 सितम्बर सन् 1959 में। (घ) अन्य।

(ii) दूरदर्शन का शाब्दिक अर्थ है—
(क) दूर से ही दर्शन करना। (ख) दूर की वस्तुओं का ज्यों का त्यों आँखों द्वारा दर्शन करना।
(ग) टेलीविजन। (घ) आकाशवाणी।

(iii) दूरदर्शन या टेलीविजन की लोकप्रियता का क्या कारण है?
(क) इसे आसानी से एक स्थान से दूसरे स्थान पर ले जाया जा सकता है।
(ख) इसे सभी वर्ग या श्रेणी के लोग देख सकते हैं।
(ग) इसे देखने के लिए किसी चश्मे, मनोभाव या अध्ययन की आवश्यकता नहीं पड़ती।
(घ) उपर्युक्त सभी कारण सत्य हैं।

(iv) दूरदर्शन हमारे लिए किस प्रकार उपयोगी है?
(क) यह हमारे जीवन में काम आने वाली हर वस्तु और पदार्थ की जानकारी देता है।
(ख) वस्तुओं के कार्य–व्यापार, नीति, ढंग और उपाय को बड़ी आसानीपूर्वक हमें दिखाता है।
(ग) यह जीवन की समस्याओं और घटनाओं को बड़ी सरलता से आवश्यक रूप से प्रस्तुत करता है।
(घ) उपर्युक्त सभी दृष्टियों से उपयोगी है।

(v) कृषि क्षेत्र में होने वाले नवीन आविष्कारों और उपयोगिताओं का विवरण हमें किससे प्राप्त होता है?
(क) दूरदर्शन से। (ख) सरकार द्वारा।
(ग) किसानों द्वारा। (घ) समाचार–पत्रों द्वारा।

2. नीचे दो काव्यांश दिए गए हैं। किसी एक काव्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

जन्म दिया माता–सा जिसने, किया सदा लालन–पालन
जिसके मिट्टी–जल से ही रचा गया हम सबका तन।
गिरिवर नित रक्षा करते हैं, उच्च उठा के शृंग महान,
जिसके लता द्रुमादिक करते हमको अपनी छाया दान।
माता केवल बाल–काल में निज अंक में धरती है,
हम अशक्त जबतलक तभी तक पालन-पोषण करती है।
मातृभूमि करती है सबका लालन सदा मृत्यु-पर्यन्त,
जिसके दया–प्रवाहों का होता न कभी सपने में अंत

मर जाने पर कण देहों के इसमें ही मिल जाते हैं,
हिन्दू जलते, यवन–ईसाई शरण इसी में पाते हैं।
ऐसी मातृभूमि मेरी है स्वर्णलोक से भी प्यारी,
उसके चरण–कमल पर मेरा तन–मन–धन सब बलिहारी।

(i) कवि के अनुसार हमें जन्म दिया है—
(क) माँ ने। (ख) धरती माँ ने।
(ग) लताओं ने। (घ) गिरिवर ने।

(ii) हमारे जीवन में योगदान है—
(क) मातृभूमि का। (ख) लताओं का।
(ग) वृक्षों का। (घ) इन सभी का।

(iii) स्वर्णलोक से भी प्यारी क्या है?
(क) मिट्टी। (ख) लताएँ।
(ग) मातृभूमि। (घ) वृक्षों की छाया।

(iv) कवि मातृभूमि के चरण–कमलों पर अपना क्या–क्या न्योछावर करना चाहता है?
(क) तन। (ख) मन।
(ग) धन। (घ) तन–मन–धन सब कुछ।

(v) हमारा शरीर किससे बना है?
(क) मिट्टी से। (ख) हड्डी से।
(ग) माँस से। (घ) हड्डी और माँस से।

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मन समर्पित, तन समर्पित
और यह जीवन समर्पित
चाहता हूँ देश की धरती, तुझे कुछ और भी दूँ।

माँ, तुम्हारा ऋण बहुत है, मैं अकिंचन,
किंतु इतना कर रहा फिर भी निवेदन।
थाल में लाऊँ सजाकर भाल जब,
कर दया स्वीकार कर लेना दयाकर यह समर्पण।
गान अर्पित, प्राण अर्पित,
रक्त का कण–कण समर्पित।

माँज दो तलवार को लाओ न देरी
बाँध दो कसकर कमर पर ढाल मेरी
भाल पर मल दो चरण की धूल थोड़ी,
शीश पर आशीष की छाया घनेरी।
स्वप्न अर्पित, प्रश्न अर्पित,
आयु का क्षण–क्षण समर्पित।

तोड़ता हूँ मोह का बंधन, क्षमा दो
गाँव मेरे, द्वार, घर, आँगन क्षमा दो
आज सीधे हाथ में तलवार दे दो
और बाएँ हाथ में ध्वज को थमा दो
ये सुमन लो, ये चमन लो,
नीड़ का तृण–तृण समर्पित।
चाहता हूँ, देश की धरती, तुझे कुछ और भी दूँ।

(i) कवि क्या–क्या समर्पित कर चुका है?
(क) मन। (ख) तन।
(ग) जीवन। (घ) ये सभी चीजें।

(ii) कवि स्वयं को क्या मानता है?
(क) धनी। (ख) अकिंचन।
(ग) दयालु। (घ) स्वीकार्य।

(iii) कवि की क्या इच्छा है?
(क) भारत माता उसके मस्तक को स्वीकार कर ले। (ख) वह निवेदन कर सके।
(ग) रक्त का कण–कण अर्पित कर सके। (घ) वह गान अर्जित करना चाहता है।

(iv) कवि क्या विनती करता है?
(क) भारत माता अपने चरणों की धूल उसके माथे पर मल दे।
(ख) उसके सिर पर भारत माता के आशीष की छाया बनी रहे।
(ग) उपर्युक्त (क) और (ख) दोनों।
(घ) अन्य।

(v) कवि अंतिम पद्यांश में क्या चाह रहा है?
(क) मोह के बंधन को तोड़ना। (ख) सीधे हाथ में तलवार दे दो।
(ग) हाथ में देश का ध्वज थामना। (घ) ये सभी कार्य।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) उसने झूठ बोला इसलिए दंड पाया—इसका सरल वाक्य होगा—
(क) वह झूठ बोलता था, इसलिए दंड पाता था। (ख) झूठ बोलने पर उसने दंड पाया।
(ग) उसे दंड मिला क्योंकि वह झूठ बोलता था। (घ) झूठ मत बोलो, वरना दंड मिलेगा।

(ii) फीस माफ कराने के लिए प्रार्थना–पत्र लिखो। किस प्रकार का वाक्य है?
(क) सरल वाक्य। (ख) संयुक्त वाक्य।
(ग) मिश्र वाक्य। (घ) आज्ञावाचक वाक्य।

(iii) जब प्रशांत मेरे पास पहुँचा, तब लगभग पाँच बजे थे—आश्रित उपवाक्य तथा भेद छाँटिए—
(क) तब लगभग पाँच बजे थे (विशेषण उपवाक्य)। (ख) प्रशांत मेरे पास पहुँचा–संज्ञा उपवाक्य।
(ग) जब प्रशांत मेरे पास पहुँचा–क्रिया.विशेषण उपवाक्य। (घ) जब प्रशांत मेरे पास पहुँचा–संज्ञा उपवाक्य।

(iv) हमने दीपावली का त्यौहार उत्साह से मनाया—उद्देश्य और विधेय का सही विकल्प छाँटिए—
(क) हमने दीवाली का त्यौहार–उद्देश्य, उत्साह से मनाया–विधेय।
(ख) हमने–उद्देश्य, दीवाली का त्यौहार उत्साह से मनाया–विधेय।
(ग) त्यौहार–उद्देश्य, उत्साह से मनाया–विधेय।
(घ) दीवाली का त्यौहार–उद्देश्य, हमने उत्साह से मनाया–विधेय।

(v) 'प्रतिमा ने रंगोली बनाई'–इस वाक्य में उद्देश्य होगा—
(क) रंगोली। (ख) बनाई।
(ग) प्रतिमा। (घ) प्रतिमा ने।

4. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) किसान से खेत जोता जाता है—कर्तृवाक्य रूप में होगा—
(क) किसान के द्वारा खेत जोता जाता है। (ख) किसान ने खेत नहीं जोता।
(ग) किसान खेत जोतता है। (घ) किसान से खेत नहीं जोता जाता।

(ii) 'प्रतिमा ने रंगोली बनाई' कर्तृवाच्य रूप में होगा—
(क) प्रतिमा के द्वारा रंगोली बनाई जाती है। (ख) प्रतिमा के द्वारा रंगोली बनाई गई।
(ग) प्रतिमा रंगोली बनाती है। (घ) प्रतिमा से रंगोली नहीं बनाई गई।

(iii) मैं इस गर्मी में नहीं सो सकता। भाववाच्य रूप में होगा—
(क) मुझसे इस गर्मी में नहीं सोया जाता। (ख) मैं गर्मी में नहीं सोता।
(ग) मैं इस गर्मी में सो सकता हूँ। (घ) गर्मी में नहीं सोना चाहिए।

(iv) बच्चे मैदान में खेलते हैं। वाक्य का भेद बताइए—

(क) कर्तृवाच्य। (ख) कर्मवाच्य।

(ग) भाववाच्य। (घ) इनमें से कोई नहीं।

(v) भाववाच्य वाक्य में प्रधानता होती है—

(क) भाव की। (ख) कर्म की।

(ग) कर्ता की। (घ) इन सभी की।

5. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) हम—

(क) पुरुषवाचक सर्वनाम, उत्तम पुरुष, स्त्रीलिंग, एकवचन, कर्ताकारक।

(ख) पुरुषवाचक सर्वनाम, अन्य पुरुष, पुल्लिंग, एकवचन, कर्ताकारक।

(ग) पुरुषवाचक सर्वनाम, उत्तम पुरुष, पुल्लिंग, बहुवचन, कर्ताकारक।

(घ) पुरुषवाचक सर्वनाम, मध्यम पुरुष, पुल्लिंग, बहुवचन, कर्ताकारक।

(ii) विद्यालय—

(क) संज्ञा, व्यक्तिवाचक, पुल्लिंग, एकवचन। (ख) संज्ञा, जातिवाचक, पुल्लिंग, एकवचन।

(ग) संज्ञा, जातिवाचक, स्त्रीलिंग, बहुवचन। (घ) संज्ञा, भाववाचक, पुल्लिंग, एकवचन।

(iii) गए—

(क) अकर्मक क्रिया, भूतकाल, पुल्लिंग, बहुवचन। (ख) सकर्मक क्रिया, भूतकाल, पुल्लिंग, एकवचन।

(ग) अकर्मक क्रिया, भूतकाल, स्त्रीलिंग, बहुवचन। (घ) सकर्मक क्रिया, भूतकाल, स्त्रीलिंग, एकवचन।

(iv) परंतु—

(क) अव्यय, व्यधिकरण, समुच्चयबोधक। (ख) अव्यय, समानाधिकरण, समुच्चयबोधक।

(ग) अव्यय, संबंधबोधक, विद्यालय और छात्र का संबंध। (घ) अव्यय, संबंधबोधक, हम और विद्यालय का संबंध।

(v) चार—

(क) गुणवाचक विशेषण, पुल्लिंग, बहुवचन, हम–विशेष्य। (ख) परिमाणवाचक विशेषण, पुल्लिंग, बहुवचन, छात्र–विशेष्य।

(ग) संख्यावाचक विशेषण, पुल्लिंग, बहुवचन, छात्र–विशेष्य। (घ) संख्यावाचक विशेषण, पुल्लिंग, एकवचन, छात्र–विशेष्य।

6. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) रस किसे कहते हैं?

(क) आनंद। (ख) तरल पदार्थ।

(ग) फलों का रस। (घ) सब्जियों का रस।

(ii) हास्य तथा रौद्र रस का स्थायी भाव होगा—

(क) क्रोध तथा हास। (ख) हास तथा क्रोध।

(ग) उत्साह तथा वात्सल्य। (घ) उत्साह तथा क्रोध।

(iii) वीर रस का उदाहरण पहचानिए—

(क) अँखियाँ हरि दरसन की प्यासी

(ख) यशोदा हरि पालनैं झुलावै

(ग) एक अचम्भा देख्यौ रे भाई।
ठाढ़ा सिंह चरावै गाई।।

(घ) खूब लड़ी मर्दानी वह तो झाँसी वाली रानी थी

(iv) निम्नलिखित काव्य पंक्तियों में रस पहचानकर लिखिए—

निस दिन बरसत नैन हमारे।
सदा रहत पावस ऋतु हम पै जब तै स्याम सिधारे।।
दृग अंजन लागत नहिं कबहु उर कपोल भए कारे।।

(क) संयोग श्रृंगार रस। (ख) वियोग श्रृंगार रस।

(ग) करुण रस। (घ) शांत रस।

(v) रस निष्पत्ति का ये तत्व नहीं है—

(क) स्थायी भाव। (ख) विभाव।

(ग) व्यभिचारी भाव। (घ) वीर रस।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

'बार–बार सोचते आखिर क्या होगा उस कौम का, जो अपने देश की खातिर घर–गृहस्थी, जवानी, जिंदगी सब कुछ होम देने वालों पर हँसती है और अपने लिए बिकने के मौके ढूंढती है। दुखी हो गए। पंद्रह दिन बाद फिर उसी कस्बे से गुजरे। कस्बे में घुसने से पहले ही ख्याल आया कि कस्बे की हृदयस्थली में सुभाष की प्रतिमा अवश्य ही प्रतिष्ठित होगी लेकिन सुभाष की आंखों पर चश्मा नहीं होगा... क्योंकि मास्टर बनाना भूल गया।..... और कैप्टन मर गया । सोचा आज वहां रुकेंगे नहीं, पान भी नहीं खाएंगे, मूर्ति की तरफ देखेंगे भी नहीं, सीधे निकल जाएंगे। ड्राइवर से कह दिया चौराहे पर रुकना नहीं, आज बहुत काम है, पान आगे कहीं खा लेंगे।

लेकिन आदत से मजबूर आँखें चौराहा आते ही मूर्ति की तरफ उठ गईं। कुछ ऐसा देखा कि चीखे, रुको। जीप स्पीड में थी, ड्राइवर ने जोर से ब्रेक मारे। रास्ता चलते लोग देखने लगे। जीप रुकते न रुकते हालदार साहब जीप से कूदकर तेज–तेज कदमों से मूर्ति की तरफ लपके और उसके ठीक सामने जाकर अटेंशन में खड़े हो गए।

मूर्ति की आंखों पर सरकंडे से बना छोटा–सा चश्मा रखा हुआ था, जैसा बच्चे बना लेते हैं। हालदार साहब भावुक हैं। इतनी सी बात पर उनकी आंखें भर आईं।

(i) हालदार साहब के दुखी होने का कारण था—
(क) नेताजी की प्रतिमा की आँखों पर चश्मा न होना। (ख) कैप्टन की मृत्यु।
(ग) कुछ लोगों द्वारा देशभक्तों की हँसी उड़ाया जाना। (घ) कार्य की व्यस्तता।

(ii) अपने लिए बिकने के मौके ढूँढ़ते हैं—
(क) कस्बे में रहने वाले लोग। (ख) शहर में रहने वाले लोग।
(ग) स्वार्थी और मतलबी लोग। (घ) देशभक्त।

(iii) चौराहे से गुजरते समय हालदार साहब ने यह नहीं सोचा था—
(क) आज वहाँ रुकेंगे नहीं। (ख) मूर्ति की तरफ नहीं देखेंगे।
(ग) सीधे निकल जाएँगे। (घ) कुछ देर रुककर पान खाएँगे।

(iv) कैप्टन कौन था?
(क) एक फौजी। (ख) चश्मे वाला।
(ग) पान वाला। (घ) लेखक।

(v) हालदार साहब यह देखकर भावुक हो गए—
(क) कस्बे का चौराहा। (ख) नेताजी की मूर्ति।
(ग) मूर्ति की आँखों पर सरकंडे से बना चश्मा। (घ) रास्ता चलते लोग।

8. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) जब तक हालदार साहब ने कैप्टन को साक्षात् देखा नहीं था तब तक उनके मानस पटल पर उसका चित्र रहा होगा—
(क) चश्मे वाला (ख) पान वाला
(ग) निर्धन तथा लँगड़ा व्यक्ति (घ) अनुशासित, गंभीर, रौबदार एवं दबंग व्यक्ति

(ii) बालगोबिन भगत के मधुर गायन की विशेषता थी—
(क) उनका गायन लोगों को आकर्षित करता था। (ख) उसमें निश्चित ताल एवं गति थी।
(ग) स्वर में आरोह–अवरोह का गुण था। (घ) ये सभी विशेषताएँ थीं।

9. निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

हमारै हरि हारिल की लकरी।
मन क्रम वचन नंद–नंदन उर, यह दृढ़ करि पकरी
जागत–सोवत, स्वप्न, दिवस–निसि, कान्ह–कान्ह जकरी।
सुनत जोग लागत है ऐसौ, ज्यौं करुई ककरी।
सु तौ व्याधि हमकौं लै आए, देखी सुनी न करी।
यह तौ 'सूर' तिनहिं लै सौंपौ जिनके मन चकरी।।

(i) गोपियों ने 'हारिल की लकरी' कहा है—
(क) उद्धव को। (ख) हारिल पक्षी को।
(ग) श्रीकृष्ण को। (घ) स्वयं को।

(ii) गोपियों ने योग की तुलना किससे की है?
(क) कड़वी ककड़ी से। (ख) नंद–नंदन से।
(ग) कृष्ण के प्रति प्रेम से। (घ) अपने हृदय से।

(iii) गोपियाँ व्याधि बता रही हैं—

(क) हारिल की लकड़ी को। (ख) चकरी को।

(ग) कड़वी ककड़ी को। (घ) उद्धव द्वारा दिए गए योग–संदेश को।

(iv) 'हमारैं हरि हारिल की लकड़ी'—इस पंक्ति में अलंकार है—

(क) यमक। (ख) श्लेष।

(ग) अनुप्रास। (घ) उत्प्रेक्षा।

(v) इस पद में प्रयुक्त भाषा है—

(क) ब्रजभाषा। (ख) बुंदेली।

(ग) अवधी। (घ) खड़ी बोली।

10. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) गोपियों ने राजनीति का प्रकांड पंडित किसे कहा है?

(क) उद्धव को। (ख) ब्रज के लोगों को।

(ग) श्रीकृष्ण को। (घ) मथुरा के लोगों को।

(ii) तुलसीदास कृत 'रामचरितमानस' 'अवधी' भाषा का हुआ है। आज अवधी भाषा अनेक जिलों में बोली जाती है। इनमें से गलत नाम छाँटिए—

(क) लखनऊ। (ख) फैजाबाद।

(ग) रायबरेली। (घ) आगरा।

❑❑

Sample Paper 5

Hindi 'A'

खण्ड – (क)

(अपठित अंश)

1. नीचे दो अपठित गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के सही विकल्प चुनकर लिखिए—

महात्मा और विद्वानों का सबसे बड़ा लक्षण है आवाज को ध्यान से सुनना, यह आवाज कुछ भी हो सकती है। कौओं की कर्कश आवाज से लेकर नदियों के छल–छल तक, मार्टिन लूथर किंग के भाषण से लेकर किसी पागल के बड़बडाने तक, अमूमन ऐसा होता नहीं। सच यह है, कि हम सुनना चाहते ही नहीं बस बोलना चाहते हैं, हमें लगता है कि लोग हमें बेहतर तरीके से समझेंगे हालाँकि ऐसा होता नहीं हमें पता ही नहीं चलता और अधिक बोलने की कला हमें अनसुना करने की कला में पारंगत कर देती है। एक मनोवैज्ञानिक ने अपने अध्ययन में पाया कि जिन घरों के अभिभावक ज्यादा बोलते हैं, वहाँ बच्चों में सही गलत से जुड़ा स्वाभाविक ज्ञान कम विकसित हो पाता है क्योंकि ज्यादा बोलने वाले बातों को विरोधाभासी तरीके से सामने रखते हैं और सामने वाला बस शब्दों के जाल में फँसकर रह जाता है। बात औपचारिक हो या अनौपचारिक, दोनों स्थितियाँ में हम दूसरे की न सुन बस हावी होने की कोशिश करते हैं। खुद ज्यादा बोलने और दूसरों को अनसुना करने से जाहिर होता है कि हम अपने बारे में ज्यादा सोचते हैं और दूसरों के बारे में कम। ज्यादा बोलने वालों के दुश्मनों की संख्या भी ज्यादा होती है। अगर आप नए दुश्मन बनाना चाहते हैं तो अपने दोस्तों से ज्यादा बोलें और अगर आप नए दोस्त नहीं बनाना चाहते हैं तो दुश्मनो से कम बोलें। अमेरिका के सर्वाधिक चर्चित राष्ट्रपति रूजवेल्ट अपने माली के भी साथ कुछ समय बिताते और इस दौरान उसकी बातें ज्यादा सुनने की कोशिश करते थे। वे कहते थे कि लोगों को अनसुना करना अपनी लोकप्रियता के साथ खिलवाड़ करने जैसा है। इसका लाभ यह मिला कि ज्यादातर अमेरिकी नागरिक उनके सुख में सुखी होते और दुख में दुखी।

(i) हम अनसुना करने की कला में पारंगत हो जाते हैं, जब—
  (क) हम अधिक सुनते हैं और कम बोलते हैं। (ख) हम अधिक बोलते हैं और कम सुनते हैं।
  (ग) हम केवल बोलते हैं, सुनते नहीं। (घ) हम केवल सुनते हैं, बोलते नहीं।

(ii) जिन घरों के अभिभावक ज्यादा बोलते हैं उन घरों के बच्चों में—
  (क) अधिक ज्ञान होता है। (ख) ज्ञान का अभाव होता है।
  (ग) सही–गलत से जुड़ा ज्ञान कम विकसित हो पाता है। (घ) उद्दंडता अधिक होती है।

(iii) अधिक बोलने वाले लोग सोचते हैं कि—
  (क) लोग उन्हें बेहतर तरीके से समझेंगे। (ख) वे अधिक विद्वान हैं।
  (ग) कम बोलने वाला व्यक्ति कुछ नहीं जानता। (घ) उनका अच्छा प्रभाव पड़ेगा।

(iv) महात्मा और विद्वानों का सबसे बड़ा लक्षण है—
  (क) अत्यधिक बोलना। (ख) किसी बात को न सुनना।
  (ग) बड़े–बड़े भाषण देना। (घ) किसी भी आवाज को ध्यान से सुनना।

(v) राष्ट्रपति रूजवेल्ट के अनुसार लोकप्रियता बढ़ाई जा सकती है—
  (क) लोगों की बातों को अनसुना करके। (ख) लोगों की बातों को ध्यानपूर्वक सुनकर।
  (ग) अपने नए दोस्त बनाकर। (घ) अपने अधिक दुश्मन बनाकर।

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साहित्य को मानव जीवन की कोमल–कांत आंतरिक भावनाओं का वाहक माना गया है, हालाँकि उनका आधार जीवन का ऊबड़–खाबड़, कठोर और यथार्थ धरातल ही हुआ करता है। मानव मन कोमल, भावुक और अन्य चमत्कारी भावनाओं से भरा होता है, जोकि साहित्य के अलौकिक या पारलौकिक विचारों, धारणाओं तथा चेतनाओं पर चिंतन करने योग्य है।

साहित्य जीवन को कई प्रकार के आश्वासन, कई प्रकार के विश्वास तथा कई प्रकार के आश्रय प्रदान करता है। साहित्य शब्द एवं भावनाओं से रचा जाता है, शब्द अक्षरों से बना है और अक्षर को सनातन धर्म के अनुसार सत्य, ब्रह्म का रूप माना–कहा गया है। आध्यात्मिक या धार्मिक परंपरा में जैसे ब्रह्म कभी नहीं खत्म किया जा सकता, वैसे ही आधुनिक विज्ञान द्वारा यह सिद्ध किया गया है, कि शब्द कभी मारा या विनाशित नहीं किया जा सकता। ठीक इसी प्रकार, साहित्य का रूप भी अजर–अमर रहता है। वह युगानुयुग मानव पीढ़ी को अनुप्राणित करता रहता है।

साहित्य युगों–युगों तक मनुष्यों की चेतना को संबल प्रदान करते रहते हैं। उदाहरण के रूप में, हम भक्तिकाल से रचे गए कबीर, जायसी, सूर, तुलसी द्वारा रचित साहित्य को भी ले सकते हैं। उपर्युक्त सभी प्रकार के साहित्य अभी तक भक्ति एवं धार्मिक मार्गदर्शन के लिए हमारे काम आते हैं।

(i) साहित्य को मानव–जीवन में क्या माना गया है?
(क) कोमल–कांत आंतरिक भावनाओं का वाहक। (ख) जीवन का ऊबड़–खाबड़ धरातल।
(ग) जीवन का कठोर और यथार्थ धरातल। (घ) मानव जीवन का चिंतन।

(ii) मानव मन किससे भरा रहता है?
(क) कोमल भावनाओं से भरा रहता है। (ख) भावुक भावनाओं से भरा रहता है।
(ग) चमत्कारी भावनाओं से भरा रहता है। (घ) इन सभी भावनाओं से भरा रहता है।

(iii) साहित्य जीवन को क्या प्रदान करता है?
(क) आश्वासन। (ख) विश्वास और आश्रय।
(ग) (क) तथा (ख) दोनों। (घ) अन्य।

(iv) भक्तिकाल के प्रसिद्ध कवि हैं—
(क) कबीर और जायसी। (ख) सूर और तुलसी।
(ग) ये सभी। (घ) इनमें से कोई नहीं।

(v) उपर्युक्त गद्यांश का सार्थक शीर्षक है—
(क) साहित्य और समाज। (ख) साहित्य एवं मानव जीवन।
(ग) साहित्य का महत्व। (घ) साहित्य का रूप।

2. नीचे दो काव्यांश दिए गए हैं। किसी एक काव्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

चौड़ी सड़क गली पतली थी
दिन का समय घनी बदली थी
रामदास उस दिन उदास था
अंत समय आ गया पास था
उसे बता यह दिया गया था उसकी हत्या होगी।
धीरे–धीरे चला अकेले
सोचा साथ किसी को ले–ले
फिर रह गया, सड़क पर सब थे सभी मौन थे
सभी निहत्थे सभी जानते थे यह उस दिन
उसकी हत्या होगी।

खड़ा हुआ वह बीच सड़क पर
दोनों हाथ पेट पर रखकर
सधे कदम रख करके आए
लोग सिमट कर आँख गड़ाए
लगे देखने उसको जिसकी तय था हत्या होगी
निकल गली से तब हत्यारा
आया उसने नाम पुकारा
हाथ तौलकर चाकू मारा
छूटा लोहू का फव्वारा
कहा नहीं था उसने आखिर उसकी हत्या होगी?

(i) प्रस्तुत कविता का उचित शीर्षक होगा—
(क) हत्यारा। (ख) रामदास।
(ग) सड़क। (घ) हत्या।

(ii) रामदास की उदासी का कारण था—
(क) सड़क का सुनसान होना।
(ख) घने बादल छाना।
(ग) अपनी हत्या की जानकारी तथा किसी के द्वारा मदद न मिलना।
(घ) सभी का निहत्था होना।

(iii) 'चौड़ी सड़क गली पतली थी
दिन का समय घनी बदली थी'—इन पंक्तियों में किस समय का वर्णन किया गया है?
(क) सड़क की चौड़ाई का। (ख) पतली गली का।
(ग) दिन के समय का। (घ) रामदास की हत्या के समय का।

(iv) सड़क पर हत्या होने का अर्थ है—
(क) आदमी की असुरक्षा का। (ख) जनता की संवेदन–शून्यता का।
(ग) सरकार के निकम्मेपन का। (घ) इन सभी का।

(v) प्रस्तुत कविता की भाषा है—
(क) सरल। (ख) क्लिष्ट।
(ग) मुहावरेदार। (घ) समझ से परे।

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भुना चबैना भड़भूजे से,
हर कोई लाता।
गन्ना चूसे, कोल्हू पे जा,
गरम–गरम गुड़ खाता।।
घुस जाता तालाब नहाने,
कमल–फूल दल तोड़े।
लभेर बंसरी खेल–खेल,
हाथ, पैर, मुँह फोड़े।।
रात–रात भर रसिया सुनते और नौटंकी गाँव में।
जब से आया शहर पड़ी है, जैसे बेड़ी पाँव में।।

भाभी के संग खेला करते,
होली डंडे वाली।
हो जातीं सब साफ गाँव की,
नालियाँ कीचड़ वाली।।

बैठ पंक्ति में खाया करते,
हम पत्तल पर दावत।
जब भी मिलते लोग पूछते,
लल्लू क्यों ना आवत।।

जी करता पर जा ना पाऊँ, अपने प्यारे गाँव में।
जब से आया शहर पड़ी है, जैसे बेड़ी पाँव में।।

कई साल हो गए शहर में,
बच्चे तीन हमारे।
नौटंकी, ढोला क्या होते,
पूछत रहें बिचारे।।

भागम–भागी आपा–धापी,
बना यंत्र–सा जीवन।
महँगाई ने कमर तोड़ दी,
छूमंतर अब यौवन।।

होगा नहीं प्रदूषण अब भी, अपने प्यारे गाँव में।
जब से आया शहर पड़ी है, जैसे बेड़ी पाँव में।।

(i) 'पाँव में बेड़ी पड़ना' का अर्थ नहीं है—
(क) बंधन में पड़ना। (ख) स्वतंत्रता समाप्त हो जाना।
(ग) पैर में तकलीफ होना। (घ) इच्छानुसार काम न कर पाना।

(ii) निम्नलिखित में क्या चबैना नहीं है?
(क) भुना चना। (ख) भुना माँस।
(ग) भुना गेहूँ। (घ) मुरमुरा।

(iii) 'होली डंडे वाली' का आशय है—
(क) वह होली जिसमें डंडियों से रंग लगाते हैं।
(ख) वह होली जिसमें डंडे जलाए जाते हैं।
(ग) वह होली जिसमें महिलाएँ डंडों से पुरुषों की पिटाई करती हैं।
(घ) वह होली जिसमें रंग डालने के कारण पुरुष महिलाओं को डंडे मारते हैं।

(iv) प्रस्तुत कविता में कवि ने प्रशंसा की है—
(क) गाँव के जीवन की। (ख) गाँव की होली की।
(ग) गाँव की दावत की। (घ) गाँव के लोगों की।

(v) कौन–सा शब्द लगभग समानार्थी नहीं है?
(क) नौटंकी। (ख) स्वाँग।
(ग) रास। (घ) ढोला।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) माधुरी के पिता विद्यालय आए और प्रधानाचार्य से मिले—
(क) माधुरी के पिता विद्यालय आकर प्रधानाचार्य से मिले।
(ख) क्योंकि माधुरी के पिता को प्रधानाचार्य से मिलना था इसलिए वे विद्यालय आए।
(ग) माधुरी के पिता को विद्यालय आना था और प्रधानाचार्य से मिलना था।
(घ) माधुरी विद्यालय में पढ़ती थी इसलिए उसके पिता को प्रधानाचार्य से मिलना पड़ा।

(ii) जो कमाएगा, वही खाएगा—
(क) सरल वाक्य। (ख) संयुक्त वाक्य।
(ग) मिश्र वाक्य। (घ) प्रधान उपवाक्य।

(iii) यदि वह दौड़ में प्रथम आएगा तभी उसे पुरस्कार मिलेगा—
(क) तभी उसे पुरस्कार मिलेगा–विशेषण उपवाक्य।
(ख) यदि वह दौड़ में प्रथम आएगा–संज्ञा उपवाक्य।
(ग) यदि वह दौड़ में प्रथम आएगा–क्रिया.विशेषण उपवाक्य।
(घ) यदि वह दौड़ में प्रथम आएगा–विशेषण उपवाक्य।

(iv) पढ़ाई न करने के कारण वह असफल हो गया—
(क) सरल वाक्य। (ख) संयुक्त वाक्य।
(ग) मिश्र वाक्य। (घ) आश्रित उपवाक्य।

(v) 'काशी में संगीत आयोजन की एक परंपरा है, जो प्राचीन व अद्‌भुत है।' यहाँ रेखांकित उपवाक्य है—
(क) आश्रित उपवाक्य। (ख) प्रधान उपवाक्य।
(ग) संज्ञा उपवाक्य। (घ) विशेषण उपवाक्य।

4. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) बाढ़ द्वारा अनेक घरों को क्षति पहुँचाई गई—
(क) कर्तृवाच्य। (ख) कर्मवाच्य।
(ग) भाववाच्य। (घ) इनमें से कोई नहीं।

(ii) बीमारी के कारण वह यहाँ न आ सका—
(क) वह बीमार था, इसलिए यहाँ न आ सका।
(ख) बीमारी के कारण वह यहाँ नहीं आ सकता।
(ग) बीमारी के कारण उससे यहाँ न आया जा सका।
(घ) वह बीमार है, इसलिए यहाँ नहीं आ सकता।

(iii) चलो नहाने चलते हैं—
(क) कर्तृवाच्य। (ख) कर्मवाच्य।
(ग) भाववाच्य। (घ) इनमें से तीनों।

(iv) हमने भूकंप पीड़ितों की सहायता के लिए अनुरोध किया—
(क) भूकंप पीड़ितों की सहायता के लिए हमने अनुरोध किया।
(ख) हमारे द्वारा भूकंप पीड़ितों की सहायता के लिए अनुरोध किया गया।
(ग) भूकंप पीड़ितों की सहायता के लिए हमें अनुरोध करना चाहिए।
(घ) भूकंप पीड़ित परेशान थे इसलिए हमने उनकी सहायता की।

(v) कर्तृवाच्य में प्रधानता रहती है—

(क) कर्ता की। (ख) कर्म की।

(ग) भाव की। (घ) कर्ता और कर्म की।

5. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) के बिना—

(क) अव्यय, समुच्चयबोधक। (ख) अव्यय, विस्मयादिबोधक।

(ग) अव्यय, संबंधबोधक। (घ) अव्यय, क्रिया–विशेषण।

(ii) सफलता—

(क) व्यक्तिवाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्मकारक।

(ख) जातिवाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्मकारक।

(ग) जातिवाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्ताकारक।

(घ) भाववाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्मकारक।

(iii) राधिका—

(क) व्यक्तिवाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्ताकारक।

(ख) व्यक्तिवाचक संज्ञा, एकवचन, पुल्लिंग, कर्मकारक।

(ग) जातिवाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्ताकारक।

(घ) भाववाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्ताकारक।

(iv) बहुत—

(क) विशेषण, परिमाणवाचक, विशेष्य–राधिका।

(ख) क्रियाविशेषण, परिमाणवाचक, 'है'–क्रिया का विशेषण।

(ग) प्रविशेषण, विशेष्य–चतुर।

(घ) विशेषण, गुणवाचक, विशेष्य–राधिका, एकवचन, स्त्रीलिंग।

(v) चतुर—

(क) क्रिया विशेषण, 'है'–क्रिया का विशेषण।

(ख) विशेषण, गुणवाचक, एकवचन, स्त्रीलिंग, राधिका–विशेष्य।

(ग) विशेषण, परिमाणवाचक, एकवचन, स्त्रीलिंग, बहुत–विशेष्य।

(घ) विशेषण, गुणवाचक, बहुवचन, पुल्लिंग, राधिका–विशेष्य।

6. निर्देशानुसार किन्हीं चार प्रश्नों के उत्तर लिखिए—

(i) इनमें से कौन–सा अवयव रस–निष्पत्ति में सहायक नहीं है?

(क) विभाव। (ख) अनुभाव।

(ग) व्यभिचारी भाव। (घ) रौद्र रस।

(ii) निम्नलिखित पंक्तियों में रस पहचानकर लिखिए—

'एक ओर अजगरहि लखि एक ओर मृगराय'।
विकल बटोही बीच ही, पर्‌यो मूरछा खाय।।

(क) वीर रस। (ख) भयानक रस।

(ग) रौद्र रस। (घ) वीभत्स रस।

(iii) शृंगार रस का स्थायी भाव है—

(क) रति। (ख) क्रोध।

(ग) उत्साह। (घ) वत्सल।

(iv) यह संयोग शृंगार का उदाहरण है—

(क) टूट सकते हैं मगर हम झुक नहीं सकते। (ख) यशोदा हरि पालनैं झुलावै।

(ग) बतरस लालच लाल की, मुरली धरी लुकाइ। (घ) विरह भुवंगम तन बसे, मंत्र न लागै कोइ।

(v) वीभत्स रस का स्थायी भाव है—

(क) जुगुप्सा। (ख) निर्वेद।

(ग) विस्मय। (घ) क्रोध।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

हालदार साहब को पानवाले द्वारा एक देशभक्त का इस तरह मज़ाक उड़ाया जाना अच्छा नहीं लगा। मुड़कर देखा तो अवाक् रह गए। एक बेहद बूढ़ा मरियल–सा लँगड़ा आदमी सिर पर गाँधी टोपी और आँखों पर काला चश्मा लगाए, एक हाथ में एक छोटी–सी संदूकची और दूसरे हाथ में एक बाँस पर टँगे बहुत–से चश्मे लिए अभी–अभी एक गली से निकला था और अब एक बन्द दुकान के सहारे अपना बाँस टिका रहा था। तो इस बेचारे की दुकान भी नहीं! फेरी लगाता है!

(i) हालदार साहब अवाक् क्यों रह गए?
(क) पान वाले द्वारा देशभक्त का मजाक उड़ाए जाने पर। (ख) एक बेहद बूढ़े लँगड़े आदमी को देखकर।
(ग) बूढ़े आदमी की संदूकची देखकर। (घ) बूढ़े आदमी के चश्मे को देखकर।

(ii) हालदार साहब को कैप्टन देशभक्त क्यों लगा?
(क) क्योंकि वह चश्मे बेचता था।
(ख) क्योंकि वह गाँधी टोपी लगाए था।
(ग) क्योंकि वह नेताजी की बिना चश्मे वाली प्रतिमा पर नित्य नया चश्मा पहनाता था।
(घ) क्योंकि वह फेरी लगाता था।

(iii) कैप्टन चश्मे वाला गली से निकलने के बाद क्या करता था?
(क) फेरी लगाता था। (ख) दुकान खोलकर बैठ जाता था।
(ग) पानवाले से बातें करता था। (घ) मूर्ति पर चश्मा लगाता था।

(iv) उपर्युक्त गद्यांश किस पाठ से लिया गया है?
(क) कैप्टन चश्मे वाला। (ख) नेताजी का चश्मा।
(ग) हालदार साहब। (घ) पानवाले की दुकान।

(v) 'मरियल–सा' 'छोटी–सी', 'अभी–अभी' शब्दों के मध्य लगा (–) चिह्न क्या कहलाता है?
(क) निर्देशक चिह्न। (ख) योजक चिह्न।
(ग) अल्प विराम। (घ) अर्द्ध विराम।

8. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(i) 'नेताजी का चश्मा' कहानी में कैप्टन कौन था?
(क) हालदार साहब। (ख) पानवाला।
(ग) चश्मे बेचने वाला। (घ) अध्यापक।

(ii) 'बालगोबिन भगत' नामक पाठ पढ़कर आपको उनके स्वभाव में दिखाई देता है—
(क) समाज–सुधारक। (ख) कबीर के सच्चे पथ–प्रदर्शक।
(ग) आदर्शवादी। (घ) ये सभी।

9. निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनकर लिखिए—

मन की मन ही माँझ रही।
कहिए जाइ कौन पै ऊधौ, नाहीं परत कही।
अवधि अधार आस आवन की, तन मन बिथा सही।
अब इन जोग सँदेसनि सुनि–सुनि, बिरहिनि बिरह दही।
चाहति हुतीं गुहारि जितहिं तैं, उत तैं धार बही।
'सूरदास' अब धीर धरहिं क्यौं, मरजादा न लही।।

(i) उपर्युक्त पद सूरदास द्वारा रचित.....में संकलित.....से लिया गया है—
(क) भ्रमरगीत–सूरसागर। (ख) सूरसागर–भ्रमरगीत।
(ग) उद्धव–योग संदेश। (घ) कृष्ण–संदेश–गोपियों की विरह–वेदना।

(ii) योग–संदेश का गोपियों पर क्या प्रभाव पड़ा?
(क) वे योग साधना के लिए सहर्ष तैयार हो गईं।
(ख) वे उद्धव के साथ मथुरा जाना चाहती थीं।
(ग) योग–संदेश ने उनकी विरहाग्नि को और भी भड़का दिया।
(घ) वे कृष्ण के प्रति आभार प्रकट करने लगीं।

(iii) 'धीर धरहि' तथा 'बिरहिनि बिरह' में प्रयुक्त अलंकार है—

(क) अनुप्रास। (ख) यमक।

(ग) रूपक। (घ) उपमा।

(iv) संपूर्ण पद में किस रस का प्रयोग हुआ है?

(क) करुण रस। (ख) संयोग श्रृंगार रस।

(ग) भक्ति रस। (घ) वियोग श्रृंगार रस।

(v) प्रस्तुत पद में पुनरुक्ति प्रकाश अलंकार कहाँ प्रयुक्त हुआ है?

(क) मन की मन ही। (ख) नाहीं परत कही।

(ग) तन मन बिथा सही। (घ) सुनि–सुनि।

10. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

(क) गोपियों के अनुसार राजा का धर्म इनमें से क्या नहीं होना चाहिए?

(क) राजा को प्रजा के सुख–चैन का ध्यान रखना चाहिए

(ख) प्रजा के साथ अन्याय होना चाहिए।

(ग) प्रजा का अहित नहीं होना चाहिए।

(घ) प्रजा की शांति का ध्यान रखना चाहिए।

(ख) तुलसी कृत 'राम–लक्ष्मण–परशुराम संवाद' के अंतर्गत प्रयुक्त 'सूर समर करनी करहिं, कहि न जनावहिं आपु।' इस पंक्ति का अर्थ है—

(क) सच्चे वीर रणभूमि में वीरता दिखाते हैं, अपने पराक्रम का गुणगान नहीं करते।

(ख) परशुराम द्वारा अपना यशगान करना।

(ग) राम द्वारा लक्ष्मण को शांत करने का संकेत करना।

(घ) विश्वामित्र द्वारा परशुराम की बात को सुनकर मन ही मन हँसना।

❑❑

Answers

Sample Paper 1

खण्ड – (क)

(अपठित अंश)

1. (i) (घ) इन सभी। (ii) (ग) असंभव।
(iii) (क) अहिंसा का। (iv) (ख) साहस के।
(v) (घ) साहस से सब संभव है।

vFkok

(i) (ग) आत्मनिर्भरता। (ii) (घ) ये सभी गुण हैं।
(iii) (क) अपने आप पर निर्भर होना। (iv) (ग) एकलव्य।
(v) (ख) आत्मनिर्भरता श्रेष्ठ है।

2. (i) (ग) विष। (ii) (ग) ज्वार।
(iii) (क) मानव को। (iv) (क) धड़कन।
(v) (ग) हमें बाधाओं को पार कर अपने लक्ष्य तक पहुँचना चाहिए।

vFkok

(i) (ख) ज्ञान प्राप्ति हमें सबसे पहले हुई। (ii) (ख) वीरता।
(iii) (घ) पर शरणागत हुआ कहाँ, कब हमें न प्यारा।
बस युद्ध–मात्र को छोड़कर, कहाँ नहीं हैं हम सदय।
(iv) (क) हमारी जीतने की शक्ति के कारण। (v) (क) निर्दय।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (i) (क) सरल वाक्य। (ii) (ग) संयुक्त वाक्य।
(iii) (ख) मिश्र वाक्य। (iv) (क) तीन।
(v) (ख) सर्वनाम उपवाक्य।

4. (i) (ख) कर्मवाच्य। (ii) (क) कर्तृवाच्य।
(iii) (क) वह चल नहीं सकता। (iv) (ग) कर्ता की।
(v) (ख) कर्म की।

5. (i) (क) क्रिया–विशेषण, रीतिवाचक, 'आ गया' क्रिया की विशेषता।
(ii) (ख) अकर्मक क्रिया, सामान्य भूतकाल, पुल्लिंग, एकवचन।
(iii) (ख) व्यक्तिवाचक संज्ञा, पुल्लिंग, एकवचन, कर्ताकारक।
(iv) (क) गुणवाचक विशेषण, एकवचन, पुल्लिंग, विशेष्य–छात्र।
(v) (ग) जातिवाचक संज्ञा, एकवचन, पुल्लिंग, 'परिश्रमी' का विशेष्य।

6. (i) (क) 33। (ii) (क) करुण रस।
(iii) (ग) हास। (iv) (ख) वीर रस।
(v) (ग) ग्यारह।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (i) (क) एक चश्मे वाला है, जिसका नाम कैप्टन है।
(ii) (ग) नेताजी की मूर्ति की आँखों पर चश्मा नहीं था।

(iii) (ख) वह मूर्ति पर लगा फ्रेम ग्राहक को दे देता था और मूर्ति पर दूसरा फ्रेम लगा देता था।

(iv) (घ) अ + सुविधा। (v) (क) अंग्रेजी भाषा।

8. (i) (ख) कैप्टन चश्मे वाले के माध्यम से देश के करोड़ों नागरिकों की देशभक्ति और उनके योगदान को रेखांकित करना।

(ii) (घ) उपर्युक्त सभी सत्य हैं।

9. (i) (ख) लक्ष्मण–परशुराम। (ii) (क) अवधी।

(iii) (ग) शिवजी के धनुष के बारे में। (iv) (ग) अनुप्रास।

(v) (क) परशुराम।

10. (i) (ग) इसमें योग–साधना के सम्मुख प्रेम को तुच्छ दिखाया गया है।

(ii) (ख) लक्ष्मण को कम आयु का बालक जानकर।

Sample Paper 2

खण्ड – (क)

(अपठित अंश)

1. (i) (ग) आत्मविश्वास। (ii) (घ) आत्मविश्वासी।

(iii) (क) लक्ष्यसिद्धि के प्रयत्नों से। (iv) (ग) आत्मविश्वास को।

(v) (घ) 'आत्मविश्वास मनुष्य की सबसे बड़ी पूँजी'।

vFkok

(i) (क) 150वीं। (ii) (ग) अच्छाइयों और विरोधी बातों के लिए।

(iii) (ग) उनकी प्रासंगिकता तथा अप्रासंगिकता का। (iv) (घ) उपर्युक्त सभी सत्य हैं।

(v) (क) गाँधीजी के विलुप्त होते सिद्धांत।

2. (i) (ख) सहानुभूति को। (ii) (ग) सनाथ।

(iii) (क) उपमा। (iv) (क) मदांधता।

(v) (ग) दयालु, दीनबंधु की कृपा सभी पर है।

vFkok

(i) (ग) समुद्र के उर पर। (ii) (क) कुसुम + अवलि।

(iii) (क) इंद्रधनुषों की शोभा को पीछे छोड़ देना। (iv) (घ) दिवाकर।

(v) (ख) आकाश की नीलिमा।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (i) (ग) सरल वाक्य। (ii) (क) सरल वाक्य।

(iii) (ख) संयुक्त वाक्य। (iv) (ग) जैसे ही घंटी बजी, छात्र कक्षा में चले गए।

(v) (क) संज्ञा उपवाक्य।

4. (i) (ग) कर्मवाच्य।

(ii) (ख) कर्तृवाच्य।

(iii) (ग) वह आदमी कठिनाई से चला।

(iv) (ख) मेरे मित्र से इसी समस्या पर विचार किया जा रहा है।

(v) (घ) तीन।

5. (i) (ख) क्रिया, सकर्मक (कर्म–क्रिकेट), एकवचन, पुल्लिंग, अपूर्ण भूतकाल।

(ii) (घ) संज्ञा, जातिवाचक, पुल्लिंग, एकवचन, अपादानकारक।

(iii) (क) सर्वनाम, अनिश्चयवाचक, पुल्लिंग, एकवचन। (iv) (क) अव्यय, क्रिया–विशेषण, कालवाचक।

(v) (क) सर्वनाम, पुरुषवाचक, अन्य पुरुष, पुल्लिंग, एकवचन।

6. (i) (ख) वियोग शृंगार। (ii) (क) शोक तथा विस्मय।

(iii) (ग) हृदय के भावों को जाग्रत करने वाले कारण (iv) (ग) निर्वेद या वैराग्य।

(v) (घ) शृंगार रस।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (i) (ग) कुछ लोग देश की खातिर अपना सर्वस्व बलिदान कर देने वालों पर हँसते थे।
(ii) (क) स्वार्थी और मतलबी लोग। (iii) (ग) पंद्रह दिन बाद।
(iv) (ग) कि आज वह मूर्ति की तरफ नहीं देखेंगे। (v) (क) चौराहा।

8. (i) (ग) उनका आचरण साधुओं जैसा था।
(ii) (घ) उन्हें नेताजी की मूर्ति पर सरकंडे का चश्मा पसंद नहीं था।

9. (i) (ग) श्रीकृष्ण को। (ii) (क) कड़वी ककड़ी से।
(iii) (घ) उद्धव द्वारा दिए गए योग–संदेश को। (iv) (ग) अनुप्रास।
(v) (क) ब्रजभाषा।

10. (i) (घ) अहंकार।
(ii) (ग) इसमें योग–साधना के सम्मुख प्रेम को तुच्छ दिखाया गया है।

Sample Paper 3

खण्ड – (क)

(अपठित अंश)

1. (i) (ग) दूसरों को सहारा देना। (ii) (क) शहरी संस्कृति और स्वार्थ।
(iii) (घ) द्वेषयुक्त प्रचार। (iv) (घ) इन सभी के।
(v) (ख) शहरी संस्कृति में।

vFkok

(i) (ग) (क) तथा (ग) दोनों। (ii) (क) भय अथवा दहशत।
(iii) (घ) इनमें से सभी। (iv) (घ) इनमें से सभी।
(v) (ख) आतंकवाद।

2. (i) (ग) संघर्ष। (ii) (क) समस्याओं से नहीं घबराता।
(iii) (घ) गुलाब। (iv) (ख) हार जाना।
(v) (घ) हमें विषम परिस्थितियों में हार नहीं माननी चाहिए।

vFkok

(i) (क) मातृभूमि की रज। (ii) (घ) मातृभूमि की अमूल्य संतान।
(iii) (ख) जिस पृथ्वी में मिले हमारे पूर्वज प्यारे। (iv) (क) मातृभूमि के गौरव का गान करना।
(v) (घ) मातृभूमि।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (i) (ग) मिश्र वाक्य। (ii) (घ) शशि गा और नाच रही है।
(iii) (ख) रोगी ने जैसे ही दवाई पी, उसे उल्टी हो गई। (iv) (क) संज्ञा उपवाक्य।
(v) (ख) एक ही उद्देश्य एवं विधेय होता है।

4. (i) (ख) कर्तृवाच्य। (ii) (क) कलाकार मूर्ति गढ़ता है।
(iii) (ग) कर्तृवाच्य। (iv) (ख) अध्यापक द्वारा कक्षा में पढ़ाया जा रहा है।
(v) (घ) महेश दौड़ नहीं सकता।

5. (i) (क) संज्ञा, व्यक्तिवाचक, एकवचन, पुल्लिंग, कर्ताकारक। (ii) (घ) संज्ञा, जातिवाचक, बहुवचन, स्त्रीलिंग।
(iii) (ख) क्रिया-अकर्मक, पुल्लिंग, एकवचन, वर्तमान काल। (iv) (ग) विशेषण, गुणवाचक, पुल्लिंग, एकवचन।
(v) (ख) क्रिया-विशेषण, रीतिवाचक, 'चलता है' क्रिया की विशेषता।

6. (i) (ग) निर्वेद। (ii) (क) रौद्र रस।
(iii) (ग) वात्सल्य रस। (iv) (ख) हास्य रस।
(v) (ग) नौ।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (i) (ग) वे सच्चे साधुओं जैसा ही उत्तम आचार–विचार रखते थे।
(ii) (क) जीवन के सिद्धांतों और आदर्शों का गहराई से अपने आचरण में पालन करना।
(iii) (ख) वे कबीर की विचारधारा से प्रभावित थे।
(iv) (घ) कबीरपंथी मठ में।
(v) (ग) कबीर।

8. (i) (ग) वे जीवन-पर्यन्त कठिन नियमों का पालन करते हुए सद्कर्मों में लगे रहे।
(ii) (घ) उन्हें नेताजी की मूर्ति पर सरकंडे का चश्मा पसंद नहीं था।

9. (i) (क) इस धनुष को तोड़ने वाला आपका ही कोई दास होगा।
(ii) (घ) इन सभी गुणों का।
(iii) (ग) परशुराम के द्वारा।
(iv) (ख) मृत्यु के।
(v) (क) त्रिपुर + अरि।

10. (i) (घ) धनुष को तोड़ने वाला कोई तुम्हारा दास होगा।
(ii) (ग) गोपियाँ अप्रत्यक्ष रूप से उद्धव को 'अभागा' या 'भाग्यहीन' कहना चाहती हैं।

Sample Paper 4

खण्ड – (क)

(अपठित अंश)

1. (i) (घ) समाज की आस्थाएँ और विश्वास।
(ii) (क) जीवन–मूल्यों में।
(iii) (घ) (ख) व (ग) दोनों में।
(iv) (ख) माता–पिता।
(v) (ग) माता-पिता के प्रति बच्चों के प्रति कर्तव्य।

vFkok

(i) (ग) 15 सितम्बर सन् 1959 में।
(ii) (ख) दूर की वस्तुओं का ज्यों का त्यों आँखों द्वारा दर्शन करना।
(iii) (क) इसे आसानी से एक स्थान से दूसरे स्थान पर ले जाया जा सकता है।
(iv) (ग) यह जीवन की समस्याओं और घटनाओं को बड़ी सरलता से आवश्यक रूप में प्रस्तुत करता है।
(v) (घ) समाचार–पत्रों द्वारा।

2. (i) (ख) धरती माँ ने।
(ii) (घ) इन सभी का।
(iii) (ग) मातृभूमि।
(iv) (घ) तन–मन–धन सब कुछ।
(v) (क) मिट्टी से।

vFkok

(i) (घ) ये सभी चीजें।
(ii) (ख) अकिंचन।
(iii) (क) भारत माता उसके मस्तक को स्वीकार कर ले।
(iv) (ग) उपर्युक्त (क) और (ख) दोनों।
(v) (घ) ये सभी कार्य।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (i) (ख) झूठ बोलने पर उसने दंड पाया।
(ii) (क) सरल वाक्य।
(iii) (ग) जब प्रशांत मेरे पास पहुँचा–क्रिया–विशेषण उपवाक्य।
(iv) (ख) हमने—उद्देश्य, दीवाली का त्योहार उत्साह से मनाया—विधेय।
(v) (घ) प्रतिमा ने।

4. (i) (ग) किसान खोत जोतता है। (ii) (ख) प्रतिमा के द्वारा रंगोली बनाई गई।
(iii) (क) मुझसे इस गर्मी में नहीं सोया जाता। (iv) (क) कर्तृवाच्य।
(v) (ग) कर्ता की।

5. (i) (ग) पुरुषवाचक सर्वनाम, उत्तम पुरुष, पुल्लिंग, बहुवचन, कर्ताकारक।
(ii) (ख) संज्ञा, जातिवाचक, पुल्लिंग, एकवचन। (iii) (क) अकर्मक क्रिया, भूतकाल, पुल्लिंग, बहुवचन।
(iv) (क) अव्यय, व्यधिकरण, समुच्चयबोधक। (v) (ग) संख्यावाचक विशेषण, पुल्लिंग, बहुवचन, छात्र–विशेष्य।

6. (i) (क) आनंद। (ii) (ख) हास तथा क्रोध।
(iii) (घ) खूब लड़ी मर्दानी वह तो झाँसी वाली रानी थी। (iv) (ख) वियोग श्रृंगार रस।
(v) (घ) वीर रस।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (i) (ग) कुछ लोगों द्वारा देशभक्तों की हँसी उड़ाया जाना। (ii) (ग) स्वार्थी और मतलबी लोग।
(iii) (घ) कुछ देर रुककर पान खाएँगें। (iv) (ख) चश्मे वाला।
(v) (ग) मूर्ति की आँखों पर सरकंडे से बना चश्मा।

8. (i) (घ) अनुशासित, गंभीर, रौबदार एवं दबंग व्यक्ति। (ii) (ख) उसमें निश्चित ताल एवं गति थी।

9. (i) (ग) श्रीकृष्ण को। (ii) (क) कड़वी ककड़ी से।
(iii) (घ) उद्धव द्वारा दिए गए योग संदेश को। (iv) (ग) अनुप्रास।
(v) (क) ब्रजभाषा।

10. (i) (ग) श्रीकृष्ण को। (ii) (घ) आगरा।

Sample Paper 5

खण्ड – (क)

(अपठित अंश)

1. (i) (ख) हम अधिक बोलते हैं और कम सुनते हैं। (ii) (ग) सही–गलत से जुड़ा ज्ञान कम विकसित हो पाता है।
(iii) (क) लोग उन्हें बेहतर तरीके से समझेंगे। (iv) (घ) किसी भी आवाज को ध्यान से सुनना।
(v) (ख) लोगों की बातों को ध्यानपूर्वक सुनकर।

vFkok

(i) (क) कोमल-कांत आंतरिक भावनाओं का वाहक। (ii) (घ) इन सभी भावनाओं से भरा रहता है।
(iii) (ग) (क) तथा (ख) दोनों। (iv) (ग) ये सभी।
(v) (ख) साहित्य एवं मानव जीवन।

2. (i) (ख) रामदास।
(ii) (ग) अपनी हत्या की जानकारी तथा किसी के द्वारा मदद न मिलना।
(iii) (घ) रामदास की हत्या के समय का। (iv) (घ) इन सभी का।
(v) (क) सरल।

vFkok

(i) (ग) पैर में तकलीफ होना। (ii) (ख) भुना माँस।
(iii) (ग) वह होली जिसमें महिलाएँ डंडों से पुरुषों की पिटाई करती हैं।
(iv) (क) गाँव के जीवन की। (v) (घ) ढोला।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (i) (ख) क्योंकि माधुरी के पिता को प्रधानाचार्य से मिलना था इसलिए वे विद्यालय आए।
(ii) (ग) मिश्र वाक्य।

(iii) (ग) यदि वह दौड़ में प्रथम आएगा–क्रिया-विशेषण उपवाक्य।
(iv) (क) सरल वाक्य।
(v) (ख) प्रधान उपवाक्य।

4. (i) (ख) कर्मवाच्य। (ii) (ग) बीमारी के कारण उससे यहाँ न आया जा सका।
(iii) (क) कर्तृवाच्य।
(iv) (ख) हमारे द्वारा भूकंप पीड़ितों की सहायता के लिए अनुरोध किया गया।
(v) (क) कर्ता की।

5. (i) (ग) अव्यय, संबंधबोधक। (ii) (घ) भाववाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्मकारक।
(iii) (क) व्यक्तिवाचक संज्ञा, एकवचन, स्त्रीलिंग, कर्ताकारक।
(iv) (ग) प्रविशेषण, विशेष्य–चतुर। (v) (ख) विशेषण, गुणवाचक, एकवचन, स्त्रीलिंग, राधिका–विशेष्य।

6. (i) (घ) रौद्र रस। (ii) (ख) भयानक रस।
(iii) (क) रति। (iv) (ग) बतरस लालच लाल की, मुरली धरी लुकाइ।
(v) (क) जुगुप्सा।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (i) (ख) एक बेहद बूढ़े लँगड़े आदमी को देखकर।
(ii) (ग) क्योंकि वह नेताजी की बिना चश्मे वाली प्रतिमा पर नित्य नया चश्मा पहनाता था।
(iii) (क) फेरी लगाता था।
(iv) (ख) नेताजी का चश्मा।
(v) (ख) नियोजन चिह्न।

8. (i) (ग) चश्मे बेचने वाला। (ii) (घ) ये सभी।

9. (i) (ख) सूरसागर–भ्रमरगीत। (ii) (ग) योग–संदेश ने उनकी विरहाग्नि को और भी भड़का दिया।
(iii) (क) अनुप्रास। (iv) (घ) वियोग श्रृंगार रस।
(v) (घ) सुनि–सुनि।

10. (i) (ख) प्रजा के साथ अन्याय होना चाहिए।
(ii) (क) सच्चे वीर रणभूमि में वीरता दिखाते हैं, अपने पराक्रम का गुणगान नहीं करते।

❑❑

Hindi–B

Sample Question Paper

Hindi 'B' [Code (085)]

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fuèkkfjr le;% 90 feuV | vf/kdre vad% 40

lkekU; funs'k%

- इस प्रश्न–पत्र में तीन खंड हैं खंड 'क', 'ख' और 'ग'।
- खण्ड 'क' में कुल 2 प्रश्न पूछे गए हैं। दोनों प्रश्नों के कुल 20 उपप्रश्न दिए गए हैं। दिए गए निर्देशों का पालन करते हुए कुल 10 उपप्रश्नों के उत्तर दीजिए।
- खंड 'ख' में 4 प्रश्न हैं तथा इन सभी के 21 उपप्रश्न हैं। इनमें से निर्देशानुसार 16 उपप्रश्नों के उत्तर दीजिए।
- खण्ड 'ग' में कुल 3 प्रश्न हैं तथा 14 उपप्रश्न सम्मिलित हैं सभी उपप्रश्नों के उत्तर दीजिए।

खण्ड – (क)

(अपठित गद्यांश) (अंक 10)

1. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए— **1 × 5 = 5**

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

अच्छा नागरिक बनने के लिए भारत के प्राचीन विचारकों ने कुछ नियमों का प्रावधान किया है। इन नियमों में वाणी और व्यवहार की शुद्धि, कर्तव्य और अधिकार का समुचित निर्वाह शुद्धतम पारस्परिक सद्भाव और सेवा की भावना आदि नियम बहुत महत्वपूर्ण माने गए हैं। ये सभी नियम यदि एक व्यक्ति के चारित्रिक गुणों के रूप में भी अनिवार्य माने जाएँ तो उसका जीवन सुखी और आनंदमय हो सकता है। सभी गुणों का विकास एक बालक में यदि उसकी बाल्यावस्था से ही किया जाए तो वह अपने देश का श्रेष्ठ नागरिक बन सकता है। इन गुणों के कारण वह अपने परिवार, आस–पड़ोस, विद्यालय में अपने सहपाठियों एवं अध्यापकों के प्रति यथोचित व्यवहार कर सकेगा।

वाणी एवं व्यवहार की मधुरता सभी के लिए सुखदायक होती है, समाज में हार्दिक सद्भाव की वृद्धि करती है किंतु अहंकारहीन व्यक्ति ही स्निग्ध वाणी और शिष्ट व्यवहार का प्रयोग कर सकता है। अहंकारी और दंभी व्यक्ति सदा अशिष्ट वाणी और व्यवहार का अभ्यासी होता है। जिसका परिणाम यह होता है कि ऐसे आदमी के व्यवहार से समाज में शांति और सौहार्द्र का वातावरण नहीं बनता।

जिस प्रकार एक व्यक्ति समाज में रहकर अपने व्यवहार से कर्तव्य और अधिकार के प्रति सजग रहता है, उसी तरह देश के प्रति भी उसका व्यवहार कर्तव्य और अधिकार की भावना से भावित रहना चाहिए। उसका कर्तव्य हो जाता है कि न तो वह स्वयं कोई ऐसा काम करे और न ही दूसरों को करने दे, जिसमें देश के सम्मान, संपत्ति और स्वाभिमान को ठेस लगे।

समाज एवं देश में शांति बनाए रखने के लिए धार्मिक सहिष्णुता भी बहुत आवश्यक है। यह वृति तभी आ सकती है जब व्यक्ति संतुलित व्यक्तित्व का हो। वह आंतरिक व बाहरी संघर्ष से परे सामाजिकता की अनुभूति से परिपूर्ण व्यक्तित्व होना चाहिए।

(1) गद्यांश के संदर्भ में अच्छा नागरिक बनने के लिए नियमों का प्रावधान आवश्यक है, क्योंकि यह–

(क) स्वतंत्रता को बढ़ावा देता है जिससे वातावरण को शांति से परिपूर्ण करता है।

(ख) व्यक्तित्व को निखारकर जीवन को आमोद–प्रमोद से परिपूर्ण करता है।

(ग) व्यक्तित्व को निखारकर जीवन को सुख और मंगलकामना से परिपूर्ण करता है।

(घ) व्यक्ति को अहंकार, स्निग्ध वाणी और शिष्ट व्यवहार से परिपूर्ण करता है।

mÙkj& (ख) व्यक्तित्व को निखारकर जीवन को आमोद–प्रमोद से परिपूर्ण करता है।

(2) वाणी में व्यवहार की मधुरता सभी के लिए सुखदायक होती है। इस कथन के लिए उपयुक्त तर्क है–

(क) देश के सम्मान, संपत्ति और स्वाभिमान को ठेस पहुँचती है।

(ख) देश व समाज में शांति और सौहार्द्र का वातावरण नहीं बनता।

(ग) कर्तव्य और अधिकार का समुचित निर्वाह बहुत आवश्यक है।

(घ) समाज में हार्दिक सद्भाव की वृद्धि और सुख की प्रतिष्ठा होती है।

mÙkj& (घ) समाज में हार्दिक सद्भाव की वृद्धि और सुख की प्रतिष्ठा होती है।

(3) अहंकारी और दंभी व्यक्ति सदा अभ्यासी होता है–

(क) अशिष्ट वाणी और व्यवहार का। (ख) मधुर एवं अशिष्ट व्यवहार का।

(ग) अशिष्ट वाणी एवं व्यवहार की शुद्धि का। (घ) स्निग्ध वाणी और अशिष्ट व्यवहार का।

mÙkj& (क) अशिष्ट वाणी और व्यवहार का।

(4) संतुलित व्यक्तित्व से तात्पर्य है–

(क) आंतरिक व बाहरी संघर्ष से संपूर्ण सामाजिकता की अनुभूति से परिपूर्ण व्यक्तित्व।

(ख) देश में पूर्णतः आदर्श नागरिक का व्यवहार करने वाला सुखदायक व्यक्तित्व।

(ग) आंतरिक व बाहरी संघर्ष से रहित संपूर्ण सामाजिकता की अनुभूति से परिपूर्ण व्यक्तित्व।

(घ) कर्तव्य और अधिकार के प्रति सजग रहने वाला भावुक प्रवृत्ति से परिपूर्ण व्यक्तित्व।

mÙkj& (ग) आंतरिक व बाहरी संघर्ष से रहित सम्पूर्ण सामाजिकता की अनुभूति से परिपूर्ण व्यक्तित्व।

(5) धार्मिक सहिष्णुता की स्थापना आवश्यक है क्योंकि इससे–

(क) अधिकार और कर्तव्य पर विजय प्राप्त हो जाएगी। (ख) देश की संपत्ति को नुकसान नहीं पहुँचेगा।

(ग) भारतीय संविधान की प्रतिष्ठा बनी रहेगी। (घ) समाज एवं देश में शांति व्यवस्था बनी रहेगी।

mÙkj& (घ) समाज में शांति व व्यवस्था बनी रहती है।

अथवा

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए।

बड़ा बनने के लिए हमें विशाल काम करने की जरूरत नहीं होती, बल्कि प्रत्येक काम में विशालता के चिह्न खोजने पड़ते हैं। अपने अंतर्मन में सदैव जिज्ञासा को जन्म देना होता है। दुनिया में ज्ञान का जो बोलबाला है, उसमें हमारे कौतूहल की केंद्रीय भूमिका है। अल्बर्ट आइंस्टीन ने एक बार अपने साक्षात्कार में कहा था कि हमारी जिज्ञासा ही हमारे अस्तित्व का आधार है। बिना प्रश्न के हमारे जीवन में न गति आएगी और न कोई रस होगा जब हम चिंतन करते हैं, तब नई बातें सामने आती हैं। सवाल करने का ही परिणाम है कि नई तकनीक ऑटोमेशन और आर्टिफिशियल इंटेलिजेंस जैसी चीजें आज दुनिया में आ रही हैं। जब हम कहते हैं क्यों, कैसे, क्या, तब हमारे अंदर की स्नायु प्राण ऊर्जा और संकल्प एक नई गति और उत्साह के साथ नवीनता की यात्रा करने लगते हैं।

हमें इस दुनिया की इतनी आदत पड़ चुकी है–कि लीक से हटकर सोचना नहीं चाहते। कोई विभिन्नता नहीं, न ही कोई नवीनता है। यह कैसा जीवन है, जिसमें कोई कौतूहल नहीं–कोई आश्चर्य नहीं? इस जगत में हमारी स्थिति एक कीटाणु या विषाणु की तरह है, जो अपनी सुखमयी व्यवस्था में पड़े रहते हैं। लेकिन जो स्वतंत्र होते हैं, वे हृदय की आवाज सुनते हैं। जो बड़ा होना चाहते हैं, इस दुनिया और इसकी प्रत्येक घटना, वस्तु एवं स्थिति पर अपना आश्चर्य प्रकट करते हैं। प्रत्येक घटना और वस्तु से परे हटकर सोचने और उसको देखने की कोशिश जो करते हैं, यही बड़ा बनते हैं। जिज्ञासु मन और बुद्धि ही दर्शन और विज्ञान की दुनिया बनाते है।

निम्नलिखित में से निर्देशानुसार सर्वाधिक उपयुक्त विकल्पों का चयन कीजिए।

(1) प्रत्येक काम में विशालता के चिह्न खोजने से लेखक का अभिप्राय है–

(क) बड़ी सोच व्यक्ति को बड़ा बनने की प्रेरणा देती है। (ख) प्रत्येक काम को महत्व देकर गहराई से समझें।

(ग) प्रत्येक काम को करने के लिए सदैव तत्पर रहें। (घ) प्रत्येक काम का आयोजन बड़े पैमाने पर करें।

mÙkj& (ख) प्रत्येक काम को महत्व देकर गहराई से समझ सके।

(2) अस्तित्व शब्द का अर्थ है–

(क) विद्यमानता। (ख) जिज्ञासु प्रवृति।

(ग) गतिमान। (घ) नवीनता।

mÙkj& (क) विद्यमानता।

(3) नवीनता की यात्रा करने से हम परंपरागत प्रणालियों से विमुख हो रहे हैं। नवीनता के पक्षधर के रूप में इसकी आवश्यकता के लिए उपयुक्त तर्क है–

(क) हमारी मानसिक स्थिति एक कीटाणु या विषाणु की तरह है।

(ख) हमारे शारीरिक, मानसिक, चारित्रिक व राष्ट्रीय विकास के लिए है।

(ग) जो स्वतंत्र मानसिकता वाले होते हैं, वे दूसरों की आवाज सुनते हैं।

(घ) जब हम चिंतन करते हैं, तब नई बातें सामने आती हैं।

mÙkj& (ख) हमारे शारीरिक, मानसिक, चारित्रिक व राष्ट्रीय विकास के लिए है।

(4) लीक से हटकर सोच को विकसित करने के लिए आवश्यक है–

(क) सुखमय व्यवस्था। (ख) हृदय की आवाज सुनना।

(ग) अंतर्मन में सदैव जिज्ञासा। (घ) दर्शन और विज्ञान की दुनिया।

mÙkj& (ग) अंतर्मन में सदैव जिज्ञासा।

(5) जिज्ञासा ही हमारे अस्तित्व के आधार की परिचायक है क्योंकि यह–

(क) व्यक्ति को नए जमाने का वैज्ञानिक दर्शाती है। (ख) शारीरिक व मानसिक रूप से क्रियाशील रखती है।

(ग) आर्टिफिशियल इंटेलिजेंस की उपयोगिता दर्शाती है। (घ) विश्वव्यापी स्तर पर स्थिति निर्धारित करती है।

mÙkj& (ख) शारीरिक व मानसिक रूप से क्रियाशील रखती है।

2. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिए– **1 × 5 = 5**

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

जानवरों में गधा सबसे बुद्धिहीन समझा जाता है हम जब किसी आदमी को पहले दर्जे का बेवकूफ कहना चाहते हैं तो उसे गधा कहते हैं। गधा सचमुच बेवकूफ है या उसके सीधेपन, उसकी निरापद सहिष्णुता ने उसे यह पदवी दे दी है, इसका निश्चय नहीं किया जा सकता। गायें सींग मारती हैं, ब्याई हुई गाय तो अनायास ही सिंहनी का रूप धारण कर लेती है। कुत्ता भी बहुत गरीब जानवर है, लेकिन कभी–कभी उसे भी क्रोध आ ही जाता है, लेकिन गधे को कभी क्रोध करते नहीं सुना, न देखा। जितना चाहो उसे मारो, चाहे जैसी खराब सड़ी हुई घास सामने डाल दो, उसके चेहरे पर कभी असंतोष की छाया भी न दिखाई देगी। वैशाख में चाहे एकाध बार कुलेल कर लेता हो; पर हमने तो उसे कभी खुश होते नहीं देखा। उसके चेहरे पर एक स्थायी विषाद छाया रहता है। सुख–दुख, हानि–लाभ किसी दशा में भी उसे बदलते नहीं देखा। ऋषि–मुनियों के जितने गुण हैं, वह सभी उसमें पराकाष्ठा को पहुँच गए हैं, पर आदमी उसे बेवकूफ कहता है। सद्गुणों का इतना अनादर कहीं नहीं देखा। कदाचित सीधापन संसार के लिए उपयुक्त नहीं है।

(1) लेखक यह निश्चय नहीं कर पाता कि गधा बेवकूफ है या सीधा क्योंकि उसके अनुसार–

(क) गधा अपने–पराये की भावना से परे है। (ख) गधा क्रोध व कुलेल नहीं करता।

(ग) गधा सीधा व सहिष्णु होता है। (घ) गधे के चेहरे पर हर्ष व विषाद होता है।

mÙkj& (ग) गधा सीधा व सहिष्णु होता है।

(2) गधे में ऋषि–मुनियों के कौन–कौन से गुण देखने को मिलते हैं?

(क) जप–तप करना। (ख) समानता का भाव।

(ग) असंतोष की भावना। (घ) कुलेल करना।

mÙkj& (ख) समानता का भाव।

(3) आशय स्पष्ट कीजिए 'उसके चेहरे पर एक स्थायी विषाद छाया रहता है।'

(क) गधा सदैव चुप रहता है, उसे खुश होते हुए कभी नहीं देखा गया।

(ख) गधे को बहुत बोझ ढोना पड़ता है, इसी कारण वह थक जाता है।

(ग) आदमी द्वारा दुर्व्यवहार करने व बेवकूफ कहने के कारण गधा दुखी है।

(घ) गधे के प्रसन्न मुख पर सदा स्थिर संतोष छाया रहता है।

mÙkj& (क) गधा सदैव चुप रहता है, उसे खुश होते हुए कभी नहीं देखा गया।

(4) गद्यांश में प्रयुक्त शब्दों 'छाया, निश्चय, अनायास' के लिए क्रमशः उचित विलोम शब्द हैं–

(क) असंतोष, अनिश्चय, प्रयास। (ख) शीतलता, अनिश्चय, सायास।

(ग) धूप, अनिश्चय, सायास। (घ) वृक्ष, अनिश्चय, प्रयास।

mÙkj& (ग) धूप, अनिश्चय, सायास।

(5) 'सीधापन संसार के लिए उपयुक्त नहीं है।' लेखक का यह कथन व्यक्त करता है कि–

(क) उनका गधे के प्रति गहरा लगाव है। (ख) समाज में गधे को भी स्थान मिलना चाहिए।

(ग) गधा निरापद सहिष्णु, सीधा–सादा होता है। (घ) वे सद्गुणों के अनादर के लिए चिंतित हैं।

mÙkj& (घ) वे सद्गुणों के अनादर के लिए चिंतित हैं।

अथवा

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए।

साहित्य की शाश्वतता का प्रश्न एक महत्वपूर्ण प्रश्न है। क्या साहित्य शाश्वत होता है? यदि हाँ, तो किस मायने में? क्या कोई साहित्य अपने रचनाकाल के सौ वर्ष बीत जाने पर भी उतना ही प्रासंगिक रहता है, जितना वह अपनी रचना के समय था? अपने

समय या युग का निर्माता साहित्यकार क्या सौ वर्ष बाद की परिस्थितियों का भी युग–निर्माता हो सकता है। समय बदलता रहता है, परिस्थितियाँ और भावबोध बदलते हैं, साहित्य बदलता है और इसी के समानांतर पाठक की मानसिकता और अभिरुचि भी बदलती है। अतः कोई भी कविता अपने सामयिक परिवेश के बदल जाने पर ठीक वही उत्तेजना पैदा नहीं कर सकती, जो उसने अपने रचनाकाल के दौरान की होगी। कहने का तात्पर्य यह है कि एक विशेष प्रकार के साहित्य के श्रेष्ठ अस्तित्व मात्र से वह साहित्य हर युग के लिए उतना ही विशेष आकर्षण रखे, यह आवश्यक नहीं है। यही कारण कि वर्तमान युग में इंगला पिंगला, सुषुम्ना, अनहद नाद आदि पारिभाषिक शब्दावली मन में विशेष भावोतेजन नहीं करती। साहित्य की श्रेष्ठता मात्र ही उसके नित्य आकर्षण का आधार नहीं है उसकी श्रेष्ठता का युगयुगीन आधार हैं, वे जीवन मूल्य तथा उनकी अत्यंत कलात्मक अभिव्यक्तियाँ जो मनुष्य की स्वतंत्रता तथा उच्चतर मानव–विकास के लिए पथ–प्रदर्शक का काम करती हैं। पुराने साहित्य का केवल वही श्री–सौंदर्य हमारे लिए ग्राह्य होगा, जो नवीन जीवन–मूल्यों के विकास में सक्रिय सहयोग दे अथवा स्थिति रक्षा में सहायक हो। कुछ लोग साहित्य की सामाजिक प्रतिबद्धता को अस्वीकार करते हैं। वे मानते हैं कि साहित्यकार निरपेक्ष होता है और उस पर कोई भी दबाव आरोपित नहीं होना चाहिए। किंतु वे भूल जाते हैं कि साहित्य के निर्माण की मूल प्रेरणा मानव–जीवन में ही विद्यमान रहती है। जीवन के लिए ही उसकी सृष्टि होती है। तुलसीदास जब स्वांतः सुखाय काव्य–रचना करते हैं, तब अभिप्राय यह नहीं रहता कि मानव–समाज के लिए इस रचना का कोई उपयोग नहीं है, बल्कि उनके अंतःकरण में संपूर्ण संसार की सुख भावना एवं हित कामना सन्निहित रहती है। जो साहित्यकार अपने संपूर्ण व्यक्तित्व को व्यापक लोक जीवन में सन्निविष्ट कर देता है, उसी के हाथों स्थायी एवं प्रेरणाप्रद साहित्य का सृजन हो सकता है।

(1) साहित्य की श्रेष्ठता का निर्धारण सुनिश्चित करता है कि वह—
(क) व्यक्ति को बहुमुखी प्रतिभा का धनी बनाता है।
(ख) लोक व्यवहार की पराकाष्ठा पर प्रतिक्रिया देता है।
(ग) सांस्कृतिक व ऐतिहासिक विरासत को बाधित करता है।
(घ) पथ–प्रशस्त कर मूल्यों का समावेशन करके कला भाव जगाता है।

mÙkj& (घ) पथ–प्रशस्त कर मूल्यों का समावेशन करके कला भाव जगाता है।

(2) नवीन जीवन मूल्यों के विकास में सक्रिय सहयोग से आशय है–
(क) स्वांतः सुखाय की कामना कर आगे बढ़ना। (ख) श्री–सौंदर्य को प्राथमिकता देकर आगे बढ़ना।
(ग) नवाचार व मूल्यों को आत्मसात कर आगे बढ़ना। (घ) वर्तमान में साहित्य के माध्यम से आगे बढ़ना।

mÙkj& (ग) नवाचार व मूल्यों को आत्मसात कर आगे बढ़ना।

(3) 'कोई साहित्य अपने रचना काल के सौ वर्ष बीत जाने पर भी उतना ही प्रासंगिक रहता है।' कथन के आधार पर उचित तर्क है–
(क) साहित्य की श्रेष्ठता मात्र ही उसके नित्य आकर्षण का आधार नहीं है।
(ख) संपूर्ण साहित्य का स्थायी व स्पष्ट आधार नहीं है।
(ग) लोक कल्याणकारी, स्थायी एवं प्रेरणाप्रद साहित्य होने की दशा में।
(घ) पारिभाषिक शब्दावली द्वारा स्पष्टीकरण करने की दशा में।

mÙkj& (ग) लोक कल्याणकारी, स्थायी एवं प्रेरणाप्रद साहित्य होने की दशा में।

(4) ''साहित्यकार निरपेक्ष होता है और उस पर कोई भी दबाव आरोपित नहीं होना चाहिए।'' कथन किस मनोवृति को प्रकट करता है—
(क) सामाजिक कार्यकर्ता की विचारधारा। (ख) साहित्य की शाश्वत क्रियाशील विचारधारा।
(ग) समाज के प्रति वचनबद्धता का अभाव। (घ) निरपेक्ष व्यक्तियों की सकारात्मकता।

mÙkj& (ग) समाज के प्रति वचनबद्धता का अभाव।

(5) गद्यांश में प्रयुक्त मानव जीवन समस्त पद का विग्रह एवं समास भेद होगा–
(क) मानव या जीवन–द्वंद्व समास। (ख) मानव का जीवन–तत्पुरुष समास।
(ग) मानव रूपी जीवन–द्विगु समास। (घ) मानव जो जीवन जीता है–अव्ययीभाव समास।

mÙkj& (ख) मानव का जीवन–तत्पुरुष समास।

खण्ड – (ख)

(व्यावहारिक व्याकरण) (अंक 16)

3. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए– **1 × 4 = 4**

(1) तताँरा की तलवार एक विलक्षण रहस्य थी।' इस वाक्य में संज्ञा पदबंध छाँटिए।
(क) तलवार एक। (ख) तताँरा की तलवार।
(ग) रहस्य थी। (घ) विलक्षण रहस्य।

mÙkj& (ख) तताँरा की तलवार।

(2) 'कबूतर परेशानी में इधर–उधर फड़फड़ा रहे थे।' रेखांकित पदबंध का प्रकार–

(क) सर्वनाम पदबंध। (ख) क्रिया पदबंध।

(ग) क्रिया–विशेषण पदबंध। (घ) विशेषण पदबंध।

mÙkj& (ग) क्रिया–विशेषण पदबंध।

(3) बढ़ती हुई आबादियों ने समंदर को पीछे सरकाना शुरू कर दिया है। रेखांकित पदबंध का प्रकार है–

(क) विशेषण पदबंध। (ख) सर्वनाम पदबंध।

(ग) क्रिया पदबंध। (घ) संज्ञा पदबंध।

mÙkj& (ग) क्रिया पदबंध।

(4) तताँरा दिनभर के अथक परिश्रम के बाद समुद्र किनारे टहलने निकल पड़ा। रेखांकित पदबंध का भेद है–

(क) क्रिया–विशेषण पदबंध। (ख) विशेषण पदबंध।

(ग) क्रिया पदबंध। (घ) संज्ञा पदबंध।

mÙkj& (क) क्रिया–विशेषण पदबंध।

(5) तताँरा एक नेक और मददगार व्यक्ति था। वाक्य में रेखांकित पदबंध का भेद है–

(क) विशेषण पदबंध। (ख) संज्ञा पदबंध।

(ग) क्रिया पदबंध। (घ) क्रिया–विशेषण पदबंध।

mÙkj& (क) विशेषण पदबंध।

4. निर्देशानुसार पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए– **1 × 4 = 4**

(1) बड़े भाई साहब ने भी उसी उम्र में पढ़ना शुरू किया था जब मैंने शुरू किया था। रचना की दृष्टि से वाक्य है–

(क) सरल वाक्य। (ख) संयुक्त वाक्य।

(ग) मिश्रित वाक्य। (घ) विधानवाचक वाक्य।

mÙkj& (क) सरल वाक्य।

(2) वामीरो कुछ सचेत हुई और घर की तरफ दौड़ी। इस संयुक्त वाक्य को परिवर्तित करने पर सरल वाक्य होगा–

(क) जैसे ही वामीरो सचेत हुई वैसे ही वह घर की तरफ दौड़ी।

(ख) वामीरो कुछ सचेत हुई और वह घर की तरफ दौड़ी।

(ग) वामीरो कुछ सचेत होने पर घर की तरफ दौड़ी।

(घ) सचेत वामीरो हुई तथा घर की तरफ दौड़ी।

mÙkj& (ग) वामीरो कुछ सचेत होने पर घर की तरफ दौड़ी।

(3) निम्नलिखित वाक्यों में मिश्र वाक्य है–

(क) मेरे और भाई साहब के बीच अब केवल एक दरजे का अंतर और रह गया।

(ख) आखिर आदमी को कुछ तो अपनी पोजीशन का खयाल रखना होगा।

(ग) जब से माताजी ने प्रबंध अपने हाथ में ले लिया है, तब से घर में लक्ष्मी आ गई है।

(घ) मेरे रहते तुम बेराह न चलने पाओगे।

mÙkj& (ग) जबसे माताजी ने प्रबंध अपने हाथ में ले लिया है, तब से घर में लक्ष्मी आ रही है।

(4) 'सूर्य निकला और प्रकाश हो गया।' रूपांतरित करने पर वाक्य का सरल रूप होगा–

(क) जैसे ही सूर्य निकला वैसे ही प्रकाश हो गया। (ख) सूर्य निकलते ही प्रकाश हो गया।

(ग) जब सूर्य निकलता है तब प्रकाश होता है। (घ) सूर्य निकला अतएव प्रकाश हो गया।

mÙkj& (ख) सूर्य निकलते ही प्रकाश हो गया।

(5) 'एक जमाना था कि लोग आठवाँ दरजा पास करके नायब तहसीलदार हो जाते थे।' रचना की दृष्टि से वाक्य है–

(क) सरल वाक्य। (ख) संयुक्त वाक्य।

(ग) मिश्र वाक्य। (घ) सामान्य वाक्य।

mÙkj& (ग) मिश्र वाक्य

5. निम्नलिखित छः भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए– **1 × 4 = 4**

(1) 'गुरुदक्षिणा' शब्द के सही समास विग्रह का चयन कीजिए–

(क) गुरु से दक्षिणा–तत्पुरुष समास। (ख) गुरु का दक्षिणा–तत्पुरुष समास।

(ग) गुरु की दक्षिणा–तत्पुरुष समास। (घ) गुरु के लिए दक्षिणा–तत्पुरुष समास।

mÙkj& (घ) गुरु के लिए दक्षिणा–तत्पुरुष समास।

(2) 'यथासमय' शब्द किस समास का उदाहरण है–

(क) कर्मधारय समास। (ख) बहुव्रीहि समास।

(ग) अव्ययीभाव समास। (घ) तत्पुरुष समास।

mÙkj& (ग) अव्ययीभाव समास।

(3) 'अष्टाध्यायी' शब्द के लिए सही समास विग्रह का चयन कीजिए–

(क) आठ अध्यायों का समाहार–द्विगु समास। (ख) आठ हैं जो अध्याय–बहुव्रीहि समास।

(ग) अष्ट और अध्याय–द्वंद्व समास। (घ) अष्ट के अध्याय–तत्पुरुष समास।

mÙkj& (क) आठ अध्यायों का समाहार–द्विगु समास।

(4) 'आशा को लाँघ कर गया हुआ' का समस्तपद है–

(क) आशालाँघ। (ख) आशातीत।

(ग) आशावान। (घ) आशागत।

mÙkj& (ख) आशातीत।

(5) 'सज्जन' समस्तपद का विग्रह होगा–

(क) सद् है जो जन। (ख) सत् है जो जन।

(ग) अच्छा है जो पुरुष। (घ) सत् के समान जन।

mÙkj& (ख) सत् है जो जन।

(6) 'बाकायदा' शब्द के लिए सही समास विग्रह का चयन कीजिए–

(क) कायदे के अनुसार–अव्ययीभाव समास। (ख) कायदे के बिना–अव्ययीभाव समास।

(ग) कायदे ही कायदे–अव्ययीभाव समास। (घ) कायदे के द्वारा कृत–तत्पुरुष समास।

mÙkj& (क) कायदे के अनुसार–अव्ययीभाव समास।

6. निम्नलिखित पाँच में से किन्हीं चार प्रश्नों के उत्तर निर्देशानुसार दीजिए तथा सर्वाधिक उपयुक्त विकल्प का चयन कीजिए— **1 × 4 = 4**

(1) 'अंधे के हाथ बटेर लगना' का अर्थ है–

(क) अच्छा भाग्य। (ख) अच्छी वस्तु प्राप्त होना।

(ग) भाग्यवश अच्छी वस्तु प्राप्त होना। (घ) अंधे व्यक्ति को बटेर प्राप्त होना।

mÙkj& (ग) भाग्यवश अच्छी वस्तु प्राप्त होना।

(2) सच्चे शूरवीर देश की रक्षा में प्राणों की.....। रिक्त स्थान की पूर्ति उचित मुहावरे से कीजिए–

(क) बाजी लगा देते हैं। (ख) जान लगा देते हैं।

(ग) ताकत लगा देते हैं। (घ) सुरक्षा लगा देते हैं।

mÙkj& (क) बाजी लगा देते हैं।

(3) 'गागर में सागर भरना' मुहावरे का सही अर्थ है–

(क) कुछ न करना। (ख) थोड़े में बहुत कुछ कह देना।

(ग) गागर में सागर का पानी भर देना। (घ) लंबी–चौड़ी बातें करना।

mÙkj& (ख) थोड़े में बहुत कुछ कह देना।

(4) कभी नौकरी ढूँढ़ने निकलोगे तो.....।रिक्त स्थान की पूर्ति उचित मुहावरे से कीजिए–

(क) जमीन पर पाँव न रखना। (ख) आटे–दाल का भाव मालूम होगा।

(ग) दीवार खड़ी करना। (घ) नाम निशान मिटाना।

mÙkj& (ख) आटे–दाल का भाव मालूम होगा।

(5) विद्यालय के वार्षिकोत्सव में इतने अधिक काम थे कि उन्हें निपटाते–निपटाते.....। उपयुक्त मुहावरे से रिक्त स्थान भरिए–

(क) दीन–दुनिया से गया। (ख) शब्द चाट डाला।

(ग) दाँतों पसीना आ गया। (घ) डेरा डाल दिया।

mÙkj& (ग) दाँतों पसीना आ गया।

खण्ड – (ग)

(पाठ्यपुस्तक) (अंक 14)

7. निम्नलिखित काव्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए– **1 × 4 = 4**

स्याम म्हाने चाकर राखो जी,

गिरधारी लाला म्हाने चाकर राखोजी।

चाकर रहस्यूँ बाग लगास्यूँ नित उठ दरसण पास्यूँ।
बिन्दरावन री कुंज गली में, गोविन्द लीला गास्यूँ।
चाकरी में दरसण पास्यूँ, सुमरण पास्यूँ खरची।
भाव भगत जागरी पास्यूँ, तीनूं बाताँ सरसी।

(1) मीरा कृष्ण से क्या प्रार्थना कर रही हैं?
(क) उनकी पीड़ा दूर करने की। (ख) सेविका के रूप में स्वीकार करने की।
(ग) प्रेमिका के रूप में स्वीकार करने की। (घ) उन्हें अपने पास रखने की।

mÙkj& (ख) सेविका के रूप में स्वीकार करने की।

(2) कृष्ण की सेविका बनकर मीरा क्या करना चाहती हैं?
(क) बाग सजाना, दर्शन करना, गीत गाना। (ख) प्रशंसा के गीत गाना और गोकुल में रहना।
(ग) रोज उठकर उनके दर्शन करना और रोना। (घ) उनकी याद में रोना, दर्शन करना, गीत गाना।

mÙkj& (क) बाग सजाना, दर्शन करना, गीत गाना।

(3) मीरा वृंदावन की गलियों में.....
(क) कृष्ण से मिलना चाहती हैं। (ख) कृष्ण का गुणगान करना चाहती हैं।
(ग) कृष्ण को उलाहना देना चाहती हैं। (घ) कृष्ण की प्रतीक्षा करना चाहती हैं।

mÙkj& (ख) कृष्ण का गुणगान करना चाहती हैं।

(4) कृष्ण की भाव–भक्ति में डूबना किसके समान है?
(क) सुख और वैभव के समान। (ख) मान–सम्मान के समान।
(ग) धन–दौलत के समान। (घ) धन और सम्मान के समान।

mÙkj& (ग) धन–दौलत के समान।

8. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए– **1 × 5 = 5**

ग्वालियर में हमारा एक मकान था। उस मकान के दालान में दो रोशनदार थे। उसमें कबूतर के एक जोड़े ने घोंसला बना लिया था। एक बार बिल्ली ने उचककर दो में से एक अंडा तोड़ दिया। मेरी माँ ने देखा तो उसे दुख हुआ। उसने स्टूल पर चढ़कर दूसरे अंडे को बचाने की कोशिश की। लेकिन इस कोशिश में दूसरा अंडा उसी के हाथ से गिरकर टूट गया। कबूतर परेशानी में इधर–उधर फड़फड़ा रहे थे। उनकी आँखों में दुख देखकर मेरी माँ की आँखों में आँसू आ गए। इस गुनाह को खुदा से मुआफ कराने के लिए उसने पूरे दिन रोजा रखा। दिनभर कुछ खाया–पिया नहीं, सिर्फ रोती रही और बार–बार नमाज पढ़–पढ़कर खुदा से इस गलती को मुआफ करने की दुआ माँगती रही।

(1) लेखक की माँ किस बात से दुखी थी?
(क) घर में कबूतरों ने घोंसला बना लिया था। (ख) कबूतर के दोनों अंडे टूट गए थे।
(ग) कबूतर अंडों को छोड़कर चले गए थे। (घ) बिल्ली अंडों को खा गई थी।

mÙkj& (ख) कबूतर के दोनों अंडे टूट गए थे।

(2) लेखक की माँ खुदा से किस गुनाह को माफ कराना चाहती थी?
(क) पहला अंडा तोड़ने का गुनाह। (ख) बिल्ली को मारने का गुनाह।
(ग) दूसरा अंडा टूट जाने का गुनाह। (घ) कबूतर का घोंसला तोड़ने का गुनाह।

mÙkj& (ग) दूसरा अंडा टूट जाने का गुनाह।

(3) प्रस्तुत गद्यांश से पता चलता है कि लेखक की माँ अत्यधिक.....
(क) संवेदनशील थीं। (ख) स्वार्थी थीं।
(ग) कमजोर थीं। (घ) डरपोक थीं।

mÙkj& (क) संवेदनशील थीं।

(4) गद्यांश में प्रयुक्त निम्नलिखित शब्दों में से कौन–सा शब्द प्रत्यय के मेल से नहीं बना है?
(क) गुनाह। (ख) परेशानी।
(ग) रोशनदान। (घ) दिनभर।

mÙkj& (क) गुनाह

(5) माँ की आँखों में आँसू आ गए थे क्योंकि–
(क) कबूतर का अंडा बिल्ली ने तोड़ दिया था।
(ख) कबूतर का अंडा लेखक की माँ से टूट गया था।
(ग) लेखक की पत्नी ने कबूतर का अंडा तोड़ दिया था।
(घ) कबूतर की आँखों में दुख देखकर व्यथित हो गई थीं।

mÙkj& (घ) कबूतर की आँखों में दुख देखकर व्यथित हो गई थीं।

9. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए– **1 × 5 = 5**

वामीरो के रुदन स्वरों को सुनकर उसकी माँ वहाँ पहुँची और दोनों को देखकर आग बबूला हो उठी। सारे गाँववालों की उपस्थिति में यह दृश्य उसे अपमानजनक लगा। इस बीच गाँव के कुछ लोग भी वहाँ पहुँच गए। वामीरो की माँ क्रोध में उफन उठी। उसने तताँरा को तरह–तरह से अपमानित किया। गाँव के लोग भी तताँरा के विरोध में आवाज़ें उठाने लगे। यह तताँरा के लिए असहनीय था। वामीरो भी रोए जा रही थी। तताँरा भी गुस्से से भर उठा। उसे जहाँ विवाह की निषेध परंपरा पर क्षोभ था वहीं अपनी असहायता पर खीझ। वामीरो का दुख उसे और गहरा कर रहा था। उसे मालूम न था कि क्या कदम उठाना चाहिए। अनायास उसका हाथ तलवार की मूठ पर जा टिका। क्रोध में तलवार निकाली और कुछ विचार करता रहा। क्रोध लगातार अग्नि की तरह बढ़ रहा था। लोग सहम उठे, एक सन्नाटा–सा खिंच गया। जब कोई राह न सूझी तो क्रोध का शमन करने के लिए उसने शक्तिभर उसे धरती में घोंप दिया और ताकत से उसे खींचने लगा। वह पसीने से नहा उठा। सब घबराए हुए थे। वह तलवार को अपनी तरफ खींचते–खींचते दूर तक पहुँच गया। वह हाँफ रहा था। अचानक जहाँ तक लकीर खिंच गई थी, वहाँ एक दरार होने लगी। मानो धरती दो टुकड़ों में बँटने लगी हो।

(1) गाँव के लोग तताँरा के विरोध में आवाजें क्यों उठा रहे थे?

(क) वे तताँरा को अपमानित करना चाहते थे। (ख) वे गाँव की निषेध परंपरा के पक्ष में थे।

(ग) गाँव की रीति के विरोध में थे। (घ) तताँरा को पशु पर्व में शामिल नहीं करना चाहते थे।

mÙkj& (ख) वे विवाह की निषेध परंपरा के पक्ष में थे।

(2) तताँरा ने अपने क्रोध का शमन करने के लिए क्या किया?

(क) वामीरो की माँ को बुरा–भला सुनाया। (ख) सब गाँववालों के विरोध में आवाज उठाई।

(ग) अपनी तलवार से उपस्थित लोगों पर वार। (घ) अपनी तलवार को धरती में गाड़ दिया।

mÙkj& (घ) अपनी तलवार को धरती में गाड़ दिया।

(3) वामीरो की माँ के गुस्से का कारण क्या था?

(क) गाँववालों का विरोध। (ख) पशु पर्व का आयोजन।

(ग) वामीरो का रोना। (घ) तताँरा का तलवार खींचना।

mÙkj& (ग) वामीरो का रोना।

(4) 'लोग सहम उठे, एक सन्नाटा–सा खिंच गया।' लोगों का सहम जाना दर्शाता है कि वे–

(क) विलक्षण दैवीय तलवार को देखने लग गए थे। (ख) किसी भावी दुष्परिणाम की आशंका से ग्रसित थे।

(ग) जानते थे कि द्वीप दो भागों में बँट जाएगा। (घ) तताँरा–वामीरो के विवाह के लिए सहमत हो गए थे।

mÙkj& (ख) किसी भावी दुष्परिणाम की आशंका से ग्रसित थे।

(5) प्रस्तुत गद्यांश में किस घटना का वर्णन है?

(क) वामीरो की त्यागमयी मृत्यु का। (ख) निकोबार द्वीप के दो भागों में बँटने का।

(ग) तताँरा–वामीरो की प्रथम मुलाकात का। (घ) तताँरा के आत्मीय स्वभाव का।

mÙkj& (ख) निकोबार द्वीप समूह के दो भागों में बँटने का।

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Sample Paper 1

Hindi 'B'

खण्ड – (क)

(अपठित गद्यांश)

1. नीचे दो गद्यांश दिये गये हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िये और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिये–
यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

जो लोग अपनी असफलताओं के लिए या जीवन में गतिरोध के हालातों को जिम्मेदार ठहराते हैं, वे लोग या तो गलत हैं या हालात से डरते हैं। वे या तो जीवन को समझ नहीं पाए या उलझनों में फँसे हुए हैं। वे या तो आलसी हैं या अकर्मण्य हैं। एक कारण और भी हो सकता है कि उनकी नीयत और नीति में मेल न हो। यह अति आवश्यक है कि नीयत और नीति दोनों एक सूत्र में पिरोई हुई हों अर्थात् मेल खाती हों। ऐसा कदापि संभव नहीं है और नीयत मानसिक इच्छा है, जो खोटी भी हो सकती है और खरी भी। खोटी नीयत वाला व्यक्ति कदापि इस संसार में नहीं टिक सकता और यदि टिकेगा, तो बहुत कम समय के लिए; केवल तब तक, जब तक उसकी नीयत खुलकर सामने नहीं आती क्योंकि नीति की जननी नीयत है और जब जननी में ही दोष है, तो संतान मे कोई–न–कोई विकृति अवश्य आ जाएगी। ऐसे में वह मनुष्य गलत नीयत एवं नीति के कारण पतन का भागी होगा। हालातों को असफलता के लिए जिम्मेदार ठहराना ठीक नहीं लगता क्योंकि हालात तो उनके साथ भी वही होते हैं या लगभग वही होते हैं, जो सफलता प्राप्त करते हैं। यदि कोई व्यक्ति अपनी असफलताओं की जिम्मेदारी खुद नहीं ले सकता, तो वह अपनी सफलता की जिम्मेदारी लेने के काबिल नहीं है। जीवन का असली आनंद तो तभी है, जब परिस्थितियाँ विषम हों।

(1) किस तरह के लोगों की नीयत और नीति में मेल नहीं रहता है?
(क) हालात को जिम्मेदार ठहराने वाले लोग। (ख) जीवन को न समझने वाले लोग।
(ग) अकर्मण्य व आलसी लोग। (घ) उपर्युक्त सभी।

(2) खोटी नीयत वाला व्यक्ति इस संसार में क्यों नहीं टिक पाता?
(क) गलत नीयत या नीति के कारण। (ख) अवगुणों के कारण।
(ग) उदारता के कारण। (घ) समय अभाव के कारण।

(3) जो लोग जीवन को समझ नहीं पाए वे कौन हैं?
(क) साधु लोग। (ख) विद्वान लोग।
(ग) अकर्मण्य व आलसी लोग। (घ) नादान लोग।

(4) लेखक ने नीति की जननी किसे कहा है?
(क) नीयत को। (ख) सोच को।
(ग) व्यवहार को। (घ) समय को।

(5) जीवन का असली आनंद कब मिलता है?
(क) खुशियों में। (ख) उत्सवों में।
(ग) विषम परिस्थितियों में। (घ) मित्रों के साथ।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए।

भारतीय सांस्कृतिक चेतना में सेवा और त्याग तथा दान धर्म का अत्यधिक महत्त्व है। जीव मात्र को भारतीय दर्शन ने ईश्वरीय रूप माना हैं। आत्मा तथा परमात्मा के विचार ने हमारे जीवन को सहज, सुगम एवं परमार्थकारी बनाया है। सारा विश्व हमारा घर है और हम सभी की भलाई के लिए कामना करें, यही हमारे जीवन का परम लक्ष्य निर्धारित किया गया है। हमें अपने कर्तव्यों का पालन करते हुए, जीवन में शुचिता और गम्भीरता का समावेश कर, सभी के जीवन को सुखी बनाने में सहायता करनी है। हमें चाहिए कि हम अपने हृदय को शुद्ध कर रुढ़ियों, अंधविश्वासों से दूर होकर सेवा मार्ग बनाए। यदि हमें किसी दीन दुखी के दुख को देखकर दुख नहीं होता, तो हमने अपनी महान संस्कृति से कुछ नही सीखा। हमें समझना चाहिए कि पीड़ित व्यक्ति भी हमारी तरह हाड़–मांस का जीवित

प्राणी है जिसके भीतर अनुभव करने वाला मन भी है। भूख, प्यास सबको लगती है। यदि हमारे सामने कोई व्यक्ति भूखा प्यासा, वस्त्रविहीन रहता है तो हमारे लिए गर्व की बात नहीं है कि हम लंबी–लंबी मोटरगाड़ियों से धूल उड़ाते चलते हैं। उपभोक्तावादी पाश्चात्य संस्कृति की कालिमा के प्रभाव के कारण आज भारतीय संस्कृति बंधुत्व और सहानुभूति को भूलती जा रही है।

(1) दीन दुखियों के प्रति कैसा भाव होना चाहिए?
(क) मतलब का। (ख) सहायता का।
(ग) बच निकलने का। (घ) स्वार्थ का।

(2) जीवन में हमें किससे दूर होना चाहिए?
(क) अपनों से। (ख) लोगों से।
(ग) अंधविश्वास एवं रूढियों से। (घ) जानवरों से।

(3) हमारे जीवन का परम लक्ष्य क्या होना चाहिए?
(क) पूजा पाठ। (ख) नौकरी पाना।
(ग) सफलता पाना। (घ) सबकी भलाई करना।

(4) भारत में किसका महत्व अधिक है?
(क) भ्रष्टाचार का। (ख) सेवा, त्याग और दान का।
(ग) जातिप्रथा का। (घ) मानवीयता का।

(5) उपभोक्तावादी पाश्चात्य संस्कृति की कालिमा के प्रभाव के कारण भारतीय संस्कृति क्या भूलती जा रही है?
(क) बंधुत्व और सहानुभूति। (ख) वैदिक संस्कृति।
(ग) इस्लामी संस्कृति। (घ) इनमें से कोई नहीं।

2. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिए— यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

संसार में दो ऐसी शक्तियाँ जो संसार को सही राह दिखाती है, वे हैं– वाणी और कर्म। इन दो शक्तियों के बल पर व्यक्ति बन भी सकता है और बिगड़ भी सकता है। शब्द की महिमा अपार है। विश्व में साहित्य, कला और विज्ञान सब शब्दशक्ति के प्रतीक प्रमाण हैं। ऐसे शब्द व्यर्थ हैं जिसका आचरण पर प्रभाव न हो। प्रायः सज्जन व्यक्ति संसार को अपने कर्म एवं वाणी द्वारा राह दिखाते हैं।

हम सभी जानते हैं कि शब्दशक्ति जितनी महान है उतनी ही कर्मशक्ति। शब्द का कर्म पर प्रभाव पड़ना आवश्यक है। मनुष्य जैसे कर्म करेगा वैसे शब्द कहेगा या जैसे शब्द कहेगा वैसे कर्म करेगा।

महात्मा गाँधी जी का सम्पूर्ण जीवन इन्हीं दोनों से युक्त था। वे जैसा कहते थे वैसा ही करते थे। उनका विश्वास शब्दों की अपेक्षा कर्मों पर अधिक था। वे रचनात्मक कर्मों को प्रधानता देते थे। वे जानते थे कि व्यक्ति महान पैदा नहीं होता बल्कि अपने विचार और काम की शुद्धता द्वारा महान कहलाता है। उनका मकसद समाज में बदलाव लाना था।

(1) उपरोक्त अनुच्छेद का उपयुक्त शीर्षक क्या होगा?
(क) वाणी और कर्म। (ख) वाणी।
(ग) कर्म। (घ) शब्द।

(2) प्रायः सज्जन व्यक्ति संसार को राह दिखाते हैं—
(क) बुद्धि के द्वारा। (ख) अपने कर्म एवं वाणी द्वारा।
(ग) घमंड द्वारा। (घ) इन सबके द्वारा।

(3) विश्व में साहित्य, कला और विज्ञान सब—
(क) शब्दशक्ति से अलग हैं। (ख) शब्दशक्ति के प्रतीक प्रमाण हैं।
(ग) शब्दशक्ति का ज्ञान देते हैं। (घ) इनमें से कोई नहीं।

(4) गाँधी जी की महानता यह थी कि वे—
(क) जो कहते थे वही करते थे। (ख) धन को ही सर्वस्व मानते थे।
(ग) निस्वार्थ भाव से अपने कर्मों को करते थे। (घ) ईश्वर की बस आराधना करते थे।

(5) व्यक्ति महान कब होता है?
(क) सद्चरित द्वारा। (ख) धन द्वारा।
(ग) स्वास्थ्य द्वारा। (घ) विचार और कर्मों द्वारा।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

प्रत्येक व्यक्ति के जीवन में सफलता का बहुत अधिक महत्व है। परंतु इसे पाना उतना ही कठिन है। परिश्रम द्वारा ही इसे पाया जा सकता है। इसलिए कहा भी गया है कि परिश्रम सफलता की कुंजी है। यह सभी जानते हैं कि यदि जीवन में सफलता पाना चाहते हो तो परिश्रम करो। वही व्यक्ति अपने लक्ष्य को प्राप्त करता है जो मेहनत करता है। भाग्य और परिश्रम गाड़ी के दो पहियों के समान हैं। दोनों जीवन के साथ चलते हैं। जो लोग केवल भाग्य के सहारे चलते हैं उसका काम कभी पूरा नहीं होता। गीता में श्रीकृष्ण ने भी कहा है—कर्म करो पर फल की चिंता मत करो। यानि परिश्रम करते रहो, फल ईश्वर पर छोड़ दो। यदि हम परिश्रम नहीं करेंगें तो थाली पर पड़ा खाना भी मुँह में नहीं आ सकता। केवल भाग्य के भरोसे रहने वाला व्यक्ति आलसी तथा निकम्मा होता है।

(1) जीवन में सफलता कैसे मिल सकती है?
(क) परिश्रम से। (ख) आलस से।
(ग) ईश्वर की प्रार्थना से। (घ) इनमें से कोई नहीं।

(2) गाडी के दो पहिए के समान क्या है?
(क) हिम्मत और डर। (ख) व्यक्ति और परिश्रम।
(ग) भाग्य और परिश्रम। (घ) किस्मत और व्यक्ति।

(3) गीता में क्या कहा गया है?
(क) कर्म ही करो। (ख) फल के विषय में सोचो।
(ग) कर्म करो फल की चिंता मत करो। (घ) केवल चिंता करो।

(4) भाग्य के भरोसे बैठने वाला व्यक्ति कैसा होता है?
(क) परिश्रमी। (ख) आलसी।
(ग) आलसी और निकम्मा। (घ) साहसी।

(5) उपर्युक्त गद्यांश का शीर्षक बताइए।
(क) परिश्रम सफलता की कुंजी है। (ख) सफलता।
(ग) परिश्रम। (घ) भाग्य और मनुष्य।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) रमन पत्र <u>लिख रहा है।</u> (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

(2) सबकी सहायता करने वाले बालक सभी को प्रिय होते है। (वाक्य में संज्ञा पदबंध है)
(क) सहायता करने वाले। (ख) सबकी सहायता करने वाले बालक।
(ग) बालक। (घ) सभी को प्रिय।

(3) दुकान से उदास चेहरे बाहर <u>झाँकने लगे।</u> (रेखांकित पदबंध का प्रकार बताइए)—
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) क्रिया पदबंध। (घ) संज्ञा पदबंध।

(4) <u>सत्यवादी हरिश्चंद</u> का नाम कौन नहीं जानता। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) क्रिया विशेषण पदबंध। (घ) संज्ञा पदबंध।

(5) सूर्य पश्चिम में <u>डूब रहा है।</u> (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

4. निर्देशानुसार पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) निम्नलिखित वाक्यों में से मिश्र वाक्य छाँटकर लिखिए—

(क) जैसे ही वह गया वैसे ही शो का मज़ा किरकिरा हो गया।

(ख) उसके जाते ही शो का मज़ा किरकिरा हो गया।

(ग) शो का मज़ा किरकिरा हो गया क्योंकि वह गया।

(घ) वह गया शो का मज़ा किरकिरा हो गया।

(2) मैंने उस व्यक्ति को देखा जो पीड़ा से कराह रहा था। (संयुक्त वाक्य में बदलिए)

(क) मैंने पीड़ा से कराहते व्यक्ति को देखा। (ख) मैंने पीड़ित व्यक्ति को देखा।

(ग) मैंने कराहते व्यक्ति को देखा। (घ) मैंने उस व्यक्ति को देखा पर वह पीड़ा से कराह रहा था।

(3) निम्नलिखित वाक्यों में से सरल वाक्य छाँटकर लिखिए—

(क) अश्मित खाना खाकर सो गई। (ख) अश्मित ने खाना खाया और सो गई।

(ग) अश्मित ने खाना खाया तो सो गई। (घ) इनमें से कोई नहीं।

(4) बच्चे पढ़ना चाहते थे इसलिए विद्यालय गए। (मिश्रित वाक्य में बदलिए)

(क) बच्चे विद्यालय गए क्योंकि वे पढ़ना चाहते थे। (ख) बच्चे पढ़ने विद्यालय गए।

(ग) बच्चे विद्यालय पढ़ने गए। (घ) तीनों त्रुटिपूर्ण हैं।

(5) खोया हुआ मोबाइल मुझे मिल गया। (संयुक्त वाक्य में बदलिए)

(क) मुझे मोबाइल मिल गया। (ख) मोबाइल खो गया और मुझे मिल गया।

(ग) मोबाइल खोते से मिल गया। (घ) जो मोबाइल खोया वह मिल गया।

5. निम्नलिखित छः भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) ''जेब को कतरने वाला'' समस्तपद बताइए।

(क) जेब चोर। (ख) जेब कतरा।

(ग) डकैत। (घ) चोर।

(2) जगबीती कौन–सा समास है—

(क) तत्पुरुष समास। (ख) बहुव्रीहि समास।

(ग) कर्मधारय समास। (घ) अव्ययीभाव समास।

(3) आशातीत का विग्रह है—

(क) आशापूर्ण। (ख) आशा से अतीत।

(ग) आशा के अनुरूप। (घ) आशास्व।

(4) उसने घर में प्रवेश किया। (रेखांकित पदों का समस्तपद बताकर समास का नाम बताइए)

(क) गृहप्रवेश /तत्पुरुष। (ख) गृहस्थ/ तत्पुरुष।

(ग) गृहप्रवेश/कर्मधारय। (घ) गृहप्रवेश/अव्ययीभाव।

(5) अंधकूप का विग्रह बताइए—

(क) अंधे का कूप। (ख) अंधे का कुआँ।

(ग) अंधा कुआँ। (घ) अंधा है जो कूप।

(6) पाप–पुण्य में कौन–सा समास है—

(क) कर्मधारय। (ख) द्वंद्व।

(ग) तत्पुरुष। (घ) बहुव्रीहि।

6. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के उत्तर निर्देशानुसार दीजिए तथा सर्वाधिक उपयुक्त विकल्प का चयन कीजिए—

(1) यह ..... है, इस पर विश्वास मत करो। (रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)

(क) बिस्तर पर सो गया। (ख) उड़ती खबर।

(ग) घर पर सो गया। (घ) रो रहा है।

(2) आड़े हाथों लेना मुहावरे का अर्थ बताइए—

(क) कल्पना करना। (ख) हवा से बातें करना।

(ग) खरी खरी सुनाना। (घ) हवा खाना।

(3) छुट्टी करना मुहावरे का अर्थ है—

(क) टकाटक बोलना। (ख) खत्म करना।

(ग) भूल जाना। (घ) मना करना।

(4) .....से तो अच्छा है, एक जगह काम करो।(रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)

(क) सागर भर दिया। (ख) शब्द भर दिए।

(ग) खाक छानने। (घ) अलंकार भर दिया।

(5) छक्के छुड़ाना का अर्थ है—

(क) क्रिकेट में छक्के मारना। (ख) हराना।

(ग) घायल करना। (घ) परेशान करना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित काव्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए—

'कस्तूरी कुंडलि बसै, मृग ढूँढ़ै बन माँहि। ऐसैं घटि घटि राम हैं, दुनियाँ देखै नाँहिं।'

(1) प्रस्तुत पद्यांश के कवि का नाम लिखिए—

(क) कबीर। (ख) रहीम।

(ग) रैदास। (घ) बिहारी।

(2) कस्तूरी क्या है?

(क) कस्तूर। (ख) सींग।

(ग) हिरन। (घ) एक सुगंधित द्रव्य।

(3) कुंडल किसे कहते हैं?

(क) मृग की नाभि को। (ख) सींग को।

(ग) मृग की खाल को। (घ) मृग का अन्य नाम।

(4) राम कहाँ निवास करते हैं?

(क) मन में। (ख) मंदिर में।

(ग) घर में। (घ) गुफा में।

8. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए—

भाई साहब उपदेश की कला में निपुण थे। ऐसी–ऐसी लगती बातें कहते, ऐसे–ऐसे सूक्ति–बाण चलाते कि मेरे जिगर के टुकड़े–टुकड़े हो जाते और हिम्मत टूट जाती। इस तरह जान तोड़कर मेहनत करने की शक्ति मैं अपने में न पाता था और उस निराशा में जरा देर के लिए मैं सोचने लगता–'क्यों न घर चला जाऊँ। जो काम मेरे बूते के बाहर है, उसमें हाथ डालकर क्यों अपनी जिंदगी खराब करूँ।' मुझे अपना मूर्ख रहना मंजूर था, लेकिन उतनी मेहनत में मुझे तो चक्कर आ जाता था, लेकिन घंटे–दो घंटे के बाद निराशा के बादल फट जाते और मैं इरादा करता कि आगे से खूब जी लगाकर पढ़ूँगा। चटपट एक टाइम–टेबिल बना डालता।

(1) बड़े भाई साहब किस कला में निपुण थे?

(क) चित्रकला में। (ख) पाक कला में।

(ग) उपदेश कला में। (घ) पतंग बाजी में।

(2) बड़े भाई साहब सूक्ति बाण किस पर चलाते थे?

(क) लेखक पर। (ख) लोगों पर।

(ग) मित्रों पर। (घ) लोगों पर।

(3) टाइम टेबल कौन बना डालता?

(क) भाई साहब। (ख) शिक्षक।

(ग) प्रशासन। (घ) छोटा भाई।

(4) निराशा के बादल फटने पर लेखक क्या सोचता?

(क) घर वापस जाने का। (ख) खूब पढ़ने का।

(ग) भाग जाने का। (घ) भाई साहब से लड़ने का।

(5) छोटे भाई को चक्कर क्यों आ जाता था?

(क) घर वापस जाने। (ख) अधिक मेहनत से।

(ग) खूब खेलने पर। (घ) गृहकार्य करने पर।

9. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

युवती झुँझला उठी। वह कुछ और सोचने लगी। अंततः उसने निश्चयपूर्वक एक बार पुनः लगभग विरोध करते हुए कड़े स्वर में कहा–

''ढीठता की हद है। मैं जब से परिचय पूछ रही हूँ और तुम बस एक ही राग अलाप रहे हो। गीत गाओ–गीत गाओ, आखिर क्यों? क्या तुम्हें गाँव का नियम नहीं मालूम?'' इतना बोलकर वह जाने के लिए तेजी से मुड़ी। तताँरा को मानो कुछ होश आया। उसे अपनी गलती का अहसास हुआ। वह उसके सामने रास्ता रोककर, मानो गिड़गिड़ाने लगा।

''मुझे माफ कर दो। जीवन में पहली बार मैं इस तरह विचलित हुआ हूँ। तुम्हें देखकर मेरी चेतना लुप्त हो गई थी। मैं तुम्हारा रास्ता छोड़ दूँगा। बस अपना नाम बता दो।''

(1) यहाँ कौन किसका नाम पूछ रहा है?

(क) गाँव वाले युवती का नाम पूछ रहे हैं। (ख) गाँव वाले तताँरा का नाम पूछ रहे हैं।

(ग) तताँरा युवती का नाम पूछ रहा है। (घ) इनमें से कोई नहीं।

(2) युवती से तताँरा बार–बार क्या आग्रह कर रहा था?

(क) शंख बजाने का। (ख) गीत गाने का।

(ग) मृदंग बजाने का। (घ) नृत्य करने का।

(3) तताँरा युवती को देखकर क्यों विचलित हो गया?

(क) प्रकृति के असंतुलन के कारण। (ख) गर्मी के कारण।

(ग) गाँव के लोगों के कारण। (घ) गीत सुनकर।

(4) युवती क्यों झुँझला उठी?

(क) तताँरा उससे बदतमीजी कर रहा था। (ख) तताँरा उससे साथ चलने को कह रहा था।

(ग) तताँरा उससे गीत गाने को कह रहा था। (घ) तताँरा उससे नृत्य करने को कह रहा था।

(5) युवती तताँरा का विरोध क्यों कर रही थी?

(क) युवती गाँव के नियम से परिचित थी। (ख) गाँव के लोगों से भयभीत थी।

(ग) प्रथम दो विकल्प सही हैं। (घ) दोनो ही त्रुटिपूर्ण हैं।

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Sample Paper 2

Hindi 'B'

खण्ड – (क)

(अपठित गद्यांश)

1. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—
यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

कहा जाता है कि किसी भी चीज, को बाँटने से बढ़ती है। उसी प्रकार खुशियों को बाँटना भी, खुशी पाने का ही एक सोपान है। जैसे ज्ञान देने से कभी नहीं घटता, वैसे ही खुशियाँ बाँटने से बढ़ती हैं। दूसरों को खुशी देना भी, अपने खुशी के खजाने को बढ़ाने जैसा है, दूसरों को खुशियाँ कई प्रकार से दी जा सकती हैं—उनकी भावनाओं का आदर कर, सहानुभूति रखकर, मदद करके या फिर उनके सुख—दुख में सहभागी बनकर। किसी बूढे व्यक्ति को सड़क पार कराना, बीमारी में सेवा करना, अपनी वस्तुओं को बाँटना, दूसरों के सुख—दुख में साथ देना आदि खुशी पाने के उदाहरण हैं। पर यह सच है कि खुशियाँ बाँटने से बढ़ती हैं।

खुशी पाने के लिए जरूरी है सकारात्मक दृष्टिकोण को अपनाना। सकारात्मक दृष्टिकोण का अर्थ है—हर दुःख, कष्ट, परेशानी में भी कोई अच्छाई ढूँढ़ सकने की क्षमता। यदि हम होने वाली हर घटना का सकारात्मक पक्ष देखने की आदत डाल लें तो हर हाल में खुश रहने का मूलमंत्र हमारी मुट्ठी में आ जाएगा। यह खुशी पाने की पहली सीढ़ी या सोपान है। उदाहरण के लिए दौड़ में पिछड़ जाने का सकारात्मक पक्ष यह है कि हम और अधिक अभ्यास कर अपनी गति को बढ़ाएँ और यह सोचकर निराश न हों कि हम दौड़ में पिछड़ गए बल्कि हम यह सोचें कि कोई विशेषता हममें भी होगी जिससे हम आगे निकल सकते हैं।

(1) दूसरों को खुशी किस प्रकार दी जाती है?
(क) मदद करके। (ख) अनादर कर।
(ग) कटुवाणी द्वारा। (घ) दुख देकर।

(2) सकारात्मक दृष्टिकोण का क्या अर्थ है?
(क) जीवन का नियम। (ख) दुख में भी खुशी को तलाशना।
(ग) मायूस होना। (घ) केवल स्वयं के प्रति सोचना।

(3) खुशी पाने का क्या सोपान है?
(क) परेशानियों को देख भागना। (ख) भाग्य को कोसना।
(ग) परेशानियों का सकारात्मक पक्ष देखना। (घ) समय पर छोड़ देना।

(4) दौड़ में पिछड़ जाने का सकारात्मक पक्ष क्या है?
(क) पुनः अभ्यास करना। (ख) अपनी कमज़ोरियों को समझना।
(ग) हार नहीं मानना। (घ) उक्त तीनों।

(5) गद्यांश का उचित शीर्षक बताइए।
(क) जीवन का सकारात्मक दृष्टिकोण। (ख) जीवन वृत्तांत।
(ग) जीवन का रहस्य। (घ) जीवन की पहेली।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए।

हमारी एकता सबसे बड़ी शक्ति है। चाहे उत्तर या दक्षिण चाहे जहाँ भी चले जाइए आपको जगह —जगह एक ही संस्कृति के मंदिर, मस्जिद, गुरुद्वारे या चर्च दिखाई देंगे। उत्तर भारत के लोगों का जो स्वभाव हैं, जीवन को देखने की उनकी जो दृष्टि है, वही स्वभाव और वही दृष्टि दक्षिण वालों की है। भाषा की दीवार के टूटते ही एक उत्तर भारतीय और एक दक्षिण भारतीय के बीच कोई भेद नहीं रह जाता और वे आपस में एक दूसरे के बहुत करीब आ जाते हैं। असल में भाषा की दीवार के आर—पार बैठे हुए भी वे एक ही हैं। वे एक धर्म के अनुयायी और संस्कृति की एक ही विरासत के भागीदार हैं, उन्होंने देश की आजादी के लिए एक होकर लड़ाई लड़ी। धार्मिक विश्वास की एकता मनुष्य की सांस्कृतिक एकता को पुष्ट करती है। अनेक सदियों से हिन्दू मुसलमान साथ रहते आए हैं और इस

लंबी संगति के फलस्वरूप उनके बीच संस्कृति और तहज़ीब की बहुत सी समान बातें पैदा हो गई है, जो उन्हें दिनों–दिन आपस में नज़दीक लाती जा रही हैं। इसलिए तो भारत में सेवा, त्याग और दान का महत्व है।

(1) हमारे मंदिर, मस्जिद, गुरुद्वारे या चर्च किसका प्रमाण हैं?
(क) कट्टरता। (ख) अंधविश्वास।
(ग) रूढ़िवादिता। (घ) एकता।

(2) उत्तर भारतीय और एक दक्षिण भारतीय के बीच कौन–सी दीवार है?
(क) अपनों की। (ख) चीन की।
(ग) अंधविश्वास एवं रुढियों की। (घ) भाषा की।

(3) सभी भारतीयों ने एक साथ होकर क्या किया?
(क) पूजा पाठ। (ख) देश में आज़ादी लाए।
(ग) सबकी भलाई की। (घ) धार्मिक अंधविश्वास लाये।

(4) भारत में किसका महत्व अधिक है?
(क) भ्रष्टाचार का। (ख) सेवा, त्याग और दान का।
(ग) जातिप्रथा का। (घ) मानवीयता का।

(5) उपरोक्त गद्यांश का शीर्षक क्या हो सकता है?
(क) बंधुत्व और सहानुभूति। (ख) वैदिक संस्कृति।
(ग) इस्लामी संस्कृति। (घ) इनमें से कोई नहीं।

2. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिए—
यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

कहा जाता है कि विद्यार्थी जीवन काफी नाजुक समय होता है। इस समय जो भी अर्जित किया जाए वह जीवन पर्यंत ही साथ रहता है। निःसंदेह यह फैशन विद्यार्थियों के लिए महँगा सौदा है। वे घरवालों के लिए समस्या बन जाते हैं। समाज जो उन्हें भावी भारत समझता है उनकी आशाएँ निराधार हो जाती है क्योंकि बचपन की चंचलता के कारण सस्ती भावना में भटककर वे अपने बहुमूल्य उद्देश्य विद्या को भूल जाते है। हमारी वेशभूषा का अच्छा या बुरा प्रभाव हम पर ही पड़ता है। प्रसिद्ध विचारक और लेखक एमर्सन का कहना कि सौम्य वेश से जो आत्मशांति मिलती है, वह धर्म से भी नहीं मिलती। साधारण व सौम्य वेश वाले विद्यार्थी का ध्यान नहीं भटकता,उसका ध्यान केवल लक्ष्य पर ही होता है। ऐसे विद्यार्थी अपने काम को सुचारू रूप से कर पाते हैं। यही आगे चलकर देश का भविष्य निर्धारित करते हैं। अतः ऐसा कहा जा सकता है कि इन पर ही देश का भविष्य टिका है।

(1) उपरोक्त अनुच्छेद का उपयुक्त शीर्षक क्या होगा?
(क) हमारी वेशभूषा और हम। (ख) युवा।
(ग) युवावर्ग। (घ) वेश।

(2) कैसी वेशभूषा वाले विद्यार्थी आगे बढ़ते हैं?
(क) फैशन प्रिय। (ख) साधारण व सौम्य वेशवाले।
(ग) सौम्य वेशवाले। (घ) प्रथम दो।

(3) विद्यार्थी किस भावना में भटककर अपने उद्देश्य खो देते हैं?
(क) फैशन में भटककर। (ख) घूमकर।
(ग) असफलता के कारण। (घ) सभी गलत है।

(4) किसने कहा है कि—सौम्य वेश से जो आत्मशांति मिलती है, वह धर्म से भी नहीं मिलती—
(क) गाँधीजी। (ख) एमर्सन।
(ग) एण्डरसन। (घ) एमरर्सन।

(5) 'भौतिक' शब्द में मूलभूत व प्रत्यय अलग करें।
(क) भूत + इक। (ख) भू + इक।
(ग) भौ + इक। (घ) भु + इक।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

साधारण लोगों की इच्छाएँ भी काफी साधारण ही होती हैं। वे थोड़े में ही अपना गुजारा कर लेते हैं। न अधिक की आशा करते हैं और न लालसा। अपने इस अभ्यास के कारण उनके विचार अपने आप ही बदल जाते हैं। उनका ध्यान एकाग्रचित्त रहता है वे 'उधो का लेना न माधव का देना' पर विश्वास करते हैं। जिस कारण उनके विचारों में किसी भी तरह का भटकाव नहीं होता। ऐसा व्यक्ति अपने जीवन में अपने लक्ष्य को पा लेता है। टालस्टॉय, महात्मा गाँधी, रवींद्रनाथ टैगोर आदि इसी के ही उदाहरण हैं। ये सभी महात्मा की सोच थी—सादा जीवन, उच्च विचार। सादगी में वास्तविक पवित्रता और आकर्षण होता है। इसी प्रकार अच्छे और उच्च मूल्यों का संदेश देने वाले विचार कठोर से कठोर व्यक्तियों को भी न्यूनाधिक रूप में प्रभावित किया ही करते हैं। यह एक परीक्षित एवं निखरा हुआ सत्य है कि केवल विचारों की उच्चता और व्यवहार की सादगी ही उन महान परंपराओं की, उच्च मानव मूल्यों की रक्षा कर पाने में समर्थ हो सकती है।

(1) कैसा व्यक्ति संसार के लिए कुछ कर सकता है?
(क) सादगी पसंद। (ख) विलासी।
(ग) धनी। (घ) बड़ी बड़ी बातें करने वाला।

(2) 'उधो का लेना न माधव का देना' पर कौन विश्वास करते हैं?
(क) कायर लोग। (ख) साधारण लोग।
(ग) चतुर लोग। (घ) विलासी लोग।

(3) कौन से महात्मा की सोच थी—सादा जीवन, उच्च विचार?
(क) महात्मा गाँधी। (ख) टालस्टॉय।
(ग) रवींद्रनाथ टैगोर। (घ) उपरोक्त सभी।

(4) परीक्षित एवं निखरा हुआ सत्य क्या है?
(क) स्वार्थ सिद्धि। (ख) विलासिता, बड़ी–बड़ी बातें।
(ग) अधिक धन की लालसा। (घ) सादा जीवन उच्च विचार।

(5) उपरोक्त अनुच्छेद का उपयुक्त शीर्षक क्या होगा?
(क) 'उधो का लेना न माधव का देना'। (ख) जीवन।
(ग) सादा जीवन ,उच्च विचार। (घ) विलासिता की बड़ी बड़ी बातें।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) <u>विदेशों में रहने वाले</u> लोगों के मन में भारत देखने की इच्छा है। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

(2) मथुरा का पेड़ा बहुत मशहूर होता है। (वाक्य में संज्ञा पदबंध है)—
(क) मथुरा का पेड़ा। (ख) पेड़ा बहुत मशहूर।
(ग) मशहूर होता। (घ) मथुरा का पेड़ा बहुत मशहूर।

(3) राधा नाचकर <u>थक गई।</u> (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) क्रिया पदबंध। (घ) संज्ञा पदबंध।

(4) बूढ़ा आदमी <u>अचानक</u> ही चल बसा। (रेखांकित पदबंध का प्रकार बताइए)—
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) क्रिया–विशेषण पदबंध। (घ) संज्ञा पदबंध।

(5) <u>विद्यालय के पीछे</u> वह छिपा हुआ है। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

4. निर्देशानुसार पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) निम्नलिखित वाक्यों में से मिश्र वाक्य छाँटकर लिखिए–

(क) एक छोटा सा गाँव था जिसके चारों ओर जंगल था। (ख) गाँव के चारों ओर जंगल था।

(ग) एक छोटे से गाँव के चारों ओर जंगल था। (घ) उपर्युक्त में से कोई भी नहीं।

(2) सूर्योदय होते ही चारों ओर उजाला फैल गया। (संयुक्त वाक्य में बदलिए)

(क) सूर्योदय हुआ, उजाला हो गया। (ख) सूर्योदय हुआ और चारों ओर उजाला फैल गया।

(ग) सूर्योदय से उजाला फैल गया। (घ) उजाला हुआ सूर्योदय हो गया।

(3) निम्नलिखित वाक्यों में से सरल वाक्य छाँटकर लिखिए–

(क) जो ईमानदार व्यक्ति होते हैं वे सफल होते हैं। (ख) ईमानदार व्यक्ति सफल होंगें।

(ग) वे ईमानदार और सफल व्यक्ति है। (घ) सफल व्यक्ति ईमानदार है।

(4) राधा ने अपनी कथा सुनाई और सुनयना रो पड़ी। (मिश्रित वाक्य में बदलिए)

(क) राधा ने कथा सुनाकर सुनयना को रूला दिया। (ख) राधा ने अपनी ऐसी कथा सुनाई कि सुनयना रो पड़ी।

(ग) सुनयना, धन्नो की कथा सुनकर रो पड़ी। (घ) उपर्युक्त में से कोई नहीं।

(5) सुनैना ने हँसने वाला चुटकुला सुनाया सभी हँस पड़े। (संयुक्त वाक्य में बदलिए)

(क) सुनैना ने चुटकुला सुनाया और सभी हँसने लगे।

(ख) सुनैना ने इतना मजेदार चुटकुला सुनाया कि सभी हँसने लगे।

(ग) सुनैना ने हँसने वाला चुटकुला सुनाया।

(घ) सुनैना ने मजेदार चुटकुला सुनाया।

5. निम्नलिखित छः भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) ''नरों को भक्षित करने वाला" समस्तपद बताइए।

(क) नरभक्ष। (ख) नरभक्षी।

(ग) मानव भक्षी। (घ) नरभक्षित।

(2) यावजीवन कौन–सा समास है?

(क) तत्पुरुष समास। (ख) बहुव्रीहि समास।

(ग) कर्मधारय समास। (घ) अव्ययीभाव समास।

(3) <u>आशुतोष</u> का विग्रह है–

(क) शीघ्र संतुष्ट होने वाला। (ख) शीघ्र पतन होने वाला।

(ग) वह जो शीघ्र तुष्ट हो जाए अर्थात् शिव। (घ) वह जो शीघ्र असंतुष्ट हो यानि शिव।

(4) विजयी विश्व <u>तिरंगा</u> प्यारा। (रेखांकित पद का समस्तपद बताकर समास का नाम बताइए)–

(क) तीन रंगों का योग/तत्पुरुष। (ख) तीन रंगों का समूह/द्विगु समास।

(ग) तीन रंगों वाला/कर्मधारय। (घ) त्रीरंग /अव्ययीभाव।

(5) <u>हरिहर</u> का विग्रह बताइए–

(क) हरि का हर। (ख) हरि ओम।

(ग) हरि–हर। (घ) हरि और हर।

(6) देश भक्ति में कौन–सा समास है?

(क) द्विगु। (ख) तत्पुरुष।

(ग) द्वंद्व। (घ) बहुव्रीहि।

6. निम्नलिखित पाँच में से किन्हीं चार प्रश्नों के उत्तर निर्देशानुसार दीजिए तथा सर्वाधिक उपयुक्त विकल्प का चयन कीजिए–

(1) महेश.....है, इस पर विश्वास मत करो।

(रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)

(क) बिस्तर पर सो गया। (ख) घर पर सो गया।

(ग) आस्तीन का साँप। (घ) ईद का चाँद।

(2) किंकर्त्तव्यविमूढ़ मुहावरे का अर्थ बताइए।

(क) कल्पना करना। (ख) कुछ न सूझना।

(ग) खरी खरी सुनाना। (घ) हवा खाना।

(3) काल के गाल में समा जाना मुहावरे का अर्थ है—
(क) मृत्यु को प्राप्त होना। (ख) खत्म करना।
(ग) जन्म होना। (घ) मना करना।

(4) .....से तो अच्छा है, काम करो।(रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)
(क) शब्द भर दिए। (ख) खाक छानने।
(ग) हाथ पसारने। (घ) घुटने टेकने।

(5) 'दिन में तारे दिखाई देना' मुहावरे का अर्थ है—
(क) परेशानी में पड़ना। (ख) तारों पर जाना।
(ग) लड़ाई होना। (घ) इनमें से कोई नहीं।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित काव्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए—

जब मैं था तो हरि नहीं, अब हरि है मैं नाहिं।
सब अँधियारा मिटि गया, जब दीपक देख्या माँहि।।
सुखिया सब संसार है, खायै अरू सोवै।
दुखिया दास कबीर है, जागै अरू रोवै।।

(1) उपरोक्त पंक्तियों में कवि ने 'मैं' शब्द किसके लिए प्रयोग किया है?
(क) घमंड एवं अहंकार। (ख) समझदारी।
(ग) देशभक्ति। (घ) लालच।

(2) कवि ने दीपक की तुलना किससे की है?
(क) मित्र। (ख) रिश्तेदार।
(ग) सच्चे ज्ञान। (घ) अहंकार।

(3) कवि के अनुसार संसार कैसा है?
(क) सुखी। (ख) धनवान।
(ग) अहंकारी। (घ) दुखिया।

(4) संसार के लोग क्या करते हैं?
(क) जागते हैं। (ख) सोते हैं।
(ग) खाते हैं। (घ) खाते हैं और सोते हैं।

8. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए—

बाइबिल के सोलोमेन जिन्हें कुरआन में सुलेमान कहा गया है, ईसा से 1025 वर्ष पूर्व एक बादशाह थे। कहा गया है, वह केवल मानव जाति के ही राजा नहीं थे, सारे छोटे–बड़े पशु–पक्षी के भी हाकिम थे। वह इन सबकी भाषा भी जानते थे। एक दफा सुलेमान अपने लश्कर के साथ एक रास्ते से गुजर रहे थे। रास्ते में कुछ चींटियों ने घोड़ों की टापों की आवाज सुनी तो डर कर एक–दूसरे से कहा, 'आप जल्दी से अपने–अपने बिलों में चलो, फौज आ रही है।' सुलेमान उनकी बातें सुनकर थोड़ी दूर पर रुक गए और चींटियों से बोले, 'घबराओ नहीं, सुलेमान को खुदा ने सबका रखवाला बनाया है। मैं किसी के लिए मुसीबत नहीं हूँ, सबके लिए मुहब्बत हूँ।'

(1) कुरान में सोलोमेन को क्या कहा गया है?
(क) सुलेमान। (ख) सोलोमन।
(ग) सेलेआन। (घ) बादशाह।

(2) सुलेमान का पशु पक्षियों के साथ कैसा रिश्ता था?
(क) नफरत का। (ख) घृणा का।
(ग) आत्मीयता का। (घ) व्यावहारिक।

(3) घोड़ों की टापों से कौन डर गया?
(क) चींटियाँ। (घ) कौवें।
(ग) कबूतर। (घ) मनुष्य।

(4) चींटियों की बातें सुनकर सुलेमान ने क्या किया?

(क) हँसने लगे। (ख) चलने लगे।

(ग) रुक गए। (घ) बैठ गए।

(5) सुलेमान ने चींटियों से क्या कहा?

(क) घर वापस जाने। (ख) अधिक मेहनत करो।

(ग) सुलेमान सबका रखवाला है। (घ) शांत रहो।

9. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

आज न तताँरा है न वामीरो किंतु उनकी यह प्रेमकथा घर–घर में सुनाई जाती है। निकोबारियों का मत है कि तताँरा की तलवार से कार–निकोबार के जो टुकड़े हुए, उसमें दूसरा लिटिल अंदमान है जो कार–निकोबार से आज 96 कि.मी. दूर स्थित है। निकोबारी इस घटना के बाद दूसरे गाँवों में भी आपसी वैवाहिक संबंध करने लगे। तताँरा–वामीरो की त्यागमयी मृत्यु शायद इसी सुखद परिवर्तन के लिए थी।

(1) किनकी प्रेम कथा घर घर में सुनाई जाती है?

(क) तताँरा वामीरो की। (ख) राजा रानी की।

(ग) तताँरा की। (घ) अंडमान की।

(2) लिटिल अंदमान कार निकोबार से कितनी दूर है?

(क) 25 कि.मी.। (ख) 50 कि.मी.।

(ग) 96 कि.मी.। (घ) 60 कि.मी.।

(3) तताँरा वामीरो की मृत्यु से क्या परिवर्तन हुआ?

(क) प्रकृति में असंतुलन हो गया। (ख) गाँवों में वैवाहिक संबंध होने लगे।

(ग) गाँव के लोगों में शत्रुता हो गई। (घ) खुशियाँ आ गई।

(4) कार निकोबार से अलग टुकड़े का नाम क्या है?

(क) निकोबार। (ख) लिटिल।

(ग) अंदमान। (घ) लिटिल अंदमान।

(5) तताँरा वामीरो की मृत्यु से क्या हुआ?

(क) सुखद परिवर्तन। (ख) दुखद परिवर्तन।

(ग) रहस्यमयी परिवर्तन। (घ) इनमें से कोई नहीं।

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Sample Paper 3

Hindi 'B'

खण्ड – (क)

(अपठित गद्यांश)

1. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

खनन के बाद खदानों वाले स्थानों को गहरी खाइयों और मलबे के साथ खुला छोड़ दिया जाता है। खनन के कारण झारखंड, छत्तीसगढ़, मध्य प्रदेश और उड़ीसा जैसे राज्यों में वनोन्मूलन भूमि निम्नीकरण का कारण बना है। गुजरात, राजस्थान, मध्य प्रदेश और महाराष्ट्र में अति पशुचारण भूमि निम्नीकरण का मुख्य कारण है। पंजाब, हरियाणा और पश्चिमी उत्तर प्रदेश जैसे राज्यों में अधिक सिंचाई भूमि निम्नीकरण के लिए उत्तरादायी है। अति सिंचन से उत्पन्न जलाक्रांतता भी भूमि निम्नीकरण का मुख्य कारण है। जिससे मृदा में लवणीयता और क्षारीयता बढ़ जाती है। खनिज प्रक्रियाएँ जैसे सीमेंट उद्योग में बहुत अधिक मात्रा में वायुमंडल में धूल विसर्जित होती है। जब इसकी परत भूमि पर जम जाती है तो मृदा की जल सोखने की प्रक्रिया अवरुद्ध हो जाती है। पिछले कुछ वर्षों से देश के विभिन्न भागों में औद्योगिक जल निकास से बाहर जाने वाला अपशिष्ट पदार्थ भूमि और जल प्रदूषण का मुख्य स्त्रोत है।

भूमि निम्नीकरण की समस्याओं को सुलझाने के कई तरीके हैं। वनारोपण और चरागाहों का उचित प्रबंधन इसमें कुछ हद तक मदद कर सकते हैं। पेड़ों की रक्षक मेखला, पशुचारण नियंत्रण और रेतीले टीलों को काँटेदार झाड़ियाँ लगाकर स्थिर बनाने की प्रक्रिया से भी भूमि कटाव की रोकथाम की जा सकती है। बंजर भूमि के उचित प्रबंधन, खनन नियंत्रण और औद्योगिक जल को परिष्करण के पश्चात् विसर्जित करके जल और भूमि प्रदूषण को कम किया जा सकता है।

(1) भूमि निम्नीकरण के क्या–क्या कारण बताए गए हैं?
(क) खनन, अति पशुचारण। (ख) तनों की कटाई।
(ग) अधिक सिंचाई। (घ) उक्त सभी।

(2) राज्यों में वनोन्मूलन के क्या कारण हैं?
(क) जनसंख्या वृद्धि। (ख) अत्यधिक खनन।
(ग) सरकारी नीतियाँ। (घ) इनमें से कोई नहीं।

(3) भूमि निम्नीकरण से बचने के क्या तरीके हैं?
(क) पेड़ों की कटाई। (ख) पशुचारण।
(ग) वनारोपण व चरागाहों का उचित प्रबंध। (घ) जल प्रदूषण।

(4) कौन–कौन से राज्य वनोन्मूलन के कारण हैं?
(क) झारखंड, महाराष्ट्र, मध्यप्रदेश। (ख) झारखंड, मध्यप्रदेश, छत्तीसगढ़ , उड़ीसा।
(ग) महाराष्ट्र, मध्यप्रदेश। (घ) छत्तीसगढ़, उड़ीसा।

(5) गद्यांश का उचित शीर्षक बताइए।
(क) भूमि निम्नीकरण की समस्या। (ख) पर्यावरण।
(ग) जीवन का रहस्य। (घ) जीवन की पहेली।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए।

साधारण तौर पर जब हम साफ रात्रि में आकाश की ओर देखते होंगे तो हमें दूर–दूर तक हजारों तारे टिमटिमाते हुए दिखाई देते होंगे। उन्हें देखकर लगता है कि जैसे किसी ने उन्हें आकाश की काली पृष्ठभूमि पर चिपका रखा है। कई बार हमें आश्चर्य होता कि वे हर रात एक ही जगह कैसे बने रहते हैं, गिर क्यों नहीं जाते? वैज्ञानिक तथ्य तो यह है कि तारे वास्तव में एक जगह स्थिर नहीं रहते हैं। जिस प्रकार पृथ्वी तथा अन्य आठ ग्रह सूर्य के चारों ओर अपने–अपने पथ पर चलते रहते हैं। वे भी उसी प्रकार अपने पथ पर धीरे–धीरे चलते रहते हैं। हमें लगता है कि तारे एक ही जगह स्थिर हैं, क्योंकि हम उन्हें चलते हुए नहीं देख सकते हैं। इसका कारण यह है कि वे हमसे हजारों हजार किलोमीटर दूर हैं। जब वे चलते हुए भी होते हैं तब भी ऐसा लगता है कि वे एक ही जगह हैं। इसके अतिरिक्त

एक शक्ति है जिसे हम गुरुत्वाकर्षण शक्ति कहते हैं, जिसके कारण चलते समय भी तारे अपने पथ पर बने रहते हैं। वह उनको एक दूसरे से टकराने से भी बचाती है।

(1) साफ रात्रि में आकाश में क्या दिखाई देता है?
(क) तारे व ग्रह। (ख) केवल तारे।
(ग) पक्षी। (घ) आकाश गंगा।

(2) इस गद्यांश में किस वैज्ञानिक तथ्य का उल्लेख किया गया है?
(क) परिक्रमा। (ख) परिभ्रमण।
(ग) दैनिक गति। (घ) गुरुत्वाकर्षण शक्ति।

(3) हम तारों को चलते हुए क्यों नहीं देख सकते?
(क) क्योंकि वे हमसे दूर हैं। (ख) क्योंकि वे टिमटिमाते हैं।
(ग) गुरुत्वाकर्षण शक्ति से वे स्थिर रहते हैं। (घ) धार्मिक अंधविश्वास है।

(4) पृथ्वी एवं अन्य ग्रह किसके चारों ओर चक्कर लगाते हैं?
(क) विश्व के। (ख) सूर्य के।
(ग) चाँद के। (घ) धरती के।

(5) उपरोक्त गद्यांश का क्या शीर्षक हो सकता है?
(क) विज्ञान एक चमत्कार। (ख) आकाश के तारे।
(ग) तारे और हम। (घ) आकाश के वैज्ञानिक तथ्य।

2. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिए—

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

कर्तव्य की कठोरता भी बड़ी विलक्षण है। अग्नि का धर्म है जलाना। इस कर्म में त्रुटि न करना ही उसका कर्तव्य है। फिर यदि गोद का बालक भी भूल से उसके पास पहुँचता है, उसे लेने के लिए हाथ बढ़ाता है तो अग्नि उसे तुरंत जला देती है। प्रकृति के नियमों में इतनी अटलता न हो तो उसका व्यापार ही बंद हो जाए। कर्तव्य जो न करा दे, सो थोड़ा है। राम के सामने निरपराध सती शिरोमणी सगर्भा सीता खड़ी है, और वह हृदय पर वज्र रखकर लक्ष्मण को उसके परित्याग की आज्ञा देते हैं तथा लक्ष्मण उसका पालन करते हैं। महाराणा प्रताप के पुत्र और पुत्री वन में वृक्षों की छाल के आटे की रोटियाँ खा रहे हैं, उन्हें भी बिल्ली छीन ले जाती है। कुछ ही वर्ष पहले अटलांटिक महासागर के बरमूदा द्वीप समूह में एक भारी तूफ़ान आया, जहाज डूबने लगा। रक्षा के लिए नावें आ गई, परंतु संख्या में कम थी। जहाज का कप्तान और उसके सहायक 35 कर्मचारी तब तक अपने प्राण बचाना नहीं चाहते, जब तक कि एक भी यात्री शेष है। फलतः सबके सब अपना कर्तव्य निर्वाह करते हुए सागर के अनंत गर्भ में सदा के लिये सो जाते हैं। इस आत्मबलिदान का कारण है—केवल कर्तव्य की प्रेरणा।

(1) उपरोक्त अनुच्छेद का उपयुक्त शीर्षक क्या होगा?
(क) कर्तव्य की प्रेरणा। (ख) प्रेरणा।
(ग) कर्तव्य। (घ) आत्मबलिदान।

(2) कर्तव्य की कठोरता कैसी है?
(क) सकारात्मक। (ख) विलक्षण।
(ग) प्रभावी। (घ) नकारात्मक।

(3) महाराणा प्रताप के बच्चों के साथ क्या हुआ?
(क) जंगल में छाल की रोटियाँ खानी पड़ी। (ख) असफलता मिली।
(ग) राज्य मिला। (घ) सभी गलत हैं।

(4) जहाज के कप्तान ने स्वयं को बचाने से ज्यादा यात्रियों को बचाना जरूरी क्यों समझा?
(क) वे डर गए थे। (ख) वे परेशान थे।
(ग) वे अपना कर्तव्य समझते थे। (घ) वे बचना नहीं चाहते थे।

(5) 'विलक्षण' का अर्थ निम्न में से क्या नहीं है?
(क) अलौकिक। (ख) अद्‌भुत।
(ग) अनोखा। (घ) गुणी।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

परिवर्तन प्रकृति का शाश्वत नियम है। यह सृष्टि का चक्र है कि समय के साथ–साथ निरंतर बदलाव होते रहते हैं। हमारे आस–पास सुबह से रात तक विभिन्न प्रकार के परिवर्तन होते रहते हैं। यह हर स्थान पर दिखाई देता है। ये परिवर्तन हमें घर, मैदान, विद्यालय हर स्थान पर दिखाई देते है। ऐसे परिवर्तन हमें मौसम, वर्षा, पौधौं पर फल–फूल आना, बीजों का अंकुरित होना, फलों का पकना–गिरना,चपाती, दूध दही बनना आदि में दिखते हैं। परिवर्तन द्वारा वस्तुओं का आकार, प्रकार, वजन, रंग, तापमान, बनावट तथा संरचना आदि में बदलाव आ जाता है। कभी–कभी यह परिवर्तन अच्छे के लिए होते हैं तो कभी–कभी बुरे भी हो जाते हैं। परिवर्तन का सदैव कोई न कोई कारण होता है। परिवर्तन हमारे जीवन में स्वर्णिम सवेरा बनकर आता है। जो हमारे जीवन में नव निर्माण का कार्य करता है। जीवन में आने वाली हर नई परिस्थिति हमारे लिए वर्तमान में परीक्षा और भविष्य में शिक्षा का कार्य करती है। जिसके अनुसार हम उस परिस्थिति पर विचार कर भविष्य के लिए सतर्क हो जाते हैं। परिवर्तन का अंतराल थोड़ा कठिनाई भरा जरूर होता है, लेकिन हम परिवर्तन से डरे तो उन्नति भी संभव नहीं है।

(1) 'हमारे आस–पास सुबह से रात तक विभिन्न प्रकार के परिवर्तन होते रहते हैं।' इस वाक्य में आस–पास से क्या तात्पर्य है?
(क) केवल घर। (ख) केवल विद्यालय।
(ग) केवल मैदान। (घ) सभी स्थान।

(2) इस गद्यांश में जिन परिवर्तनों का उल्लेख किया है, उनमें ऐसे कारकों को सम्मिलित नहीं किया है जैसे—
(क) स्थिति और आकृति। (ख) आकार और रंग।
(ग) बनावट और संरचना। (घ) कीमत और मूल्य।

(3) परिवर्तन सम्भव नहीं है?
(क) यदि वह आकस्मिक हो। (ख) जब तक उसके लिए भुगतान न किया गया हो।
(ग) जब तक कोई कारण न हो। (घ) जब तक उसकी माँग न हो।

(4) जीवन में आने वाली हर नई परिस्थिति हमारे लिए क्या कार्य करती है?
(क) वर्तमान में परीक्षा और भविष्य में शिक्षा का। (ख) वर्तमान में शिक्षा का।
(ग) भविष्य में शिक्षा का। (घ) वर्तमान में परीक्षा का।

(5) उपरोक्त अनुच्छेद का उपयुक्त शीर्षक क्या होगा?
(क) जीवन में नव निर्माण का कार्य। (ख) परिवर्तन प्रकृति का शाश्वत नियम।
(ग) विभिन्न प्रकार के परिवर्तन। (घ) भविष्य में शिक्षा का महत्व।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए—

(1) <u>हमेशा मधुर बोलने वाले तुम</u> कड़वा क्यों बोल रहे हो, (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

(2) माता जी खाना पकाते हुए बच्चों को डाँट रही हैं। (वाक्य में संज्ञा पदबंध है)
(क) माता जी। (ख) पकाते हुए बच्चों को डाँट रही।
(ग) डाँट रही हैं। (घ) खाना पकाते हुए बच्चों को डाँट रही हैं।

(3) रीना <u>ऊँचा गाते–गाते</u> थक गई। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) क्रिया–विशेषण पदबंध।
(ग) क्रिया पदबंध। (घ) संज्ञा पदबंध।

(4) <u>भारतीय सीमा की रक्षा करने वाले सैनिक</u> महान होते हैं। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) क्रिया विशेषण पदबंध। (घ) संज्ञा पदबंध।

(5) मेरे चाचा <u>सबसे ऊपर वाले मकान</u> में रहते हैं। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) क्रिया विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

4. निर्देशानुसार पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) निम्नलिखित वाक्यों में से मिश्र वाक्य छाँटकर लिखिए—
(क) एक छोटे गाँव के चारों ओर जंगल था। (ख) छोटे गाँव के चारों ओर जंगल था।
(ग) एक छोटा–सा गाँव था जिसके चारों ओर जंगल था। (घ) गाँव के चारों ओर जंगल था।

(2) जैसे ही मोदी जी ने भाषण दिया, लोगों ने तालियाँ बजाईं। (संयुक्त वाक्य में बदलिए)
(क) मोदी जी के भाषण सुन कर, लोगों ने तालियाँ बजाईं।
(ख) मोदी जी ने भाषण दिया, लोगों ने तालियाँ बजाईं।
(ग) मोदी जी ने भाषण दिया, और लोगों ने तालियाँ बजाईं।
(घ) सभी गलत हैं।

(3) निम्नलिखित वाक्यों में से सरल वाक्य छाँटकर लिखिए—
(क) मैंने एक ऐसे व्यक्ति को देखा जो अपंग था पर काम कर रहा था।
(ख) मैंने अपंग व्यक्ति को काम करते देखा।
(ग) मैंने अपंग व्यक्ति देखा जो काम कर रहा था।
(घ) काम करते हुए मैंने अपंग व्यक्ति को देखा।

(4) मधु ने आपबीती सुनाई और जिससे सुनीता रो पड़ी। (मिश्रित वाक्य में बदलिए)
(क) मधु ने आपबीती सुनाकर सुनीता को रूला दिया।
(ख) मधु ने अपनी ऐसी आपबीती सुनाई कि सुनीता रो पड़ी।
(ग) सुनीता मधु की आपबीती सुनकर रो पड़ी।
(घ) उपरोक्त में से कोई नहीं।

(5) वह दिल्ली या कोलकाता गया है। (संयुक्त वाक्य में बदलिए)
(क) वह दिल्ली गया है या कोलकाता। (ख) वह दिल्ली गया है या फिर कोलकाता।
(ग) वह दिल्ली या कोलकाता गया है। (घ) वह दिल्ली जाकर कोलकाता गया है।

5. निम्नलिखित छः भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) 'उत्तर का उत्तर' का समस्तपद बताइए।
(क) प्रत्यक्ष। (ख) प्रति उत्तर।
(ग) प्रत्युत्तर। (घ) प्रतीक्षा।

(2) निर्विवाद में कौन सा समास है?
(क) तत्पुरुष समास। (ख) बहुव्रीहि समास।
(ग) कर्मधारय समास। (घ) अव्ययीभाव समास।

(3) षडानन का विग्रह है—
(क) वह जिनके षट् आनन है अर्थात् कार्तिकेय। (ख) जिसकी छः भुजाएँ है।
(ग) जिसके छः मुँह हैं। (घ) जिनके षट् आनन है।

(4) वह <u>इकलौता</u> पुत्र है। (रेखांकित पदों का समस्त पद बताकर समास का नाम बताइए)
(क) अकेला/तत्पुरुष। (ख) एक ही है जो/द्विगु समास।
(ग) एक ही/कर्मधारय। (घ) एकाएक/अव्ययीभाव।

(5) नीलोत्पल का विग्रह बताइए—
(क) नीला पल। (ख) नीला है जो पल।
(ग) नीला है जो उत्पल (कमल)। (घ) नीला कमल।

(6) चौराहा में कौन–सा समास है?
(क) बहुव्रीहि। (ख) तत्पुरुष।
(ग) अव्ययीभाव। (घ) द्विगु।

6. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के उत्तर निर्देशानुसार दीजिए तथा सर्वाधिक उपयुक्त विकल्प का चयन कीजिए—

(1) तुम तो .....ही हो गए। (रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करे।)
(क) बिस्तर पर सो गए। (ख) घर पर सो गए।
(ग) अवसर ताकना। (घ) ईद का चाँद।

(2) 'पहुँचे हुए' मुहावरे का अर्थ बताइए।
(क) कल्पना लोक। (ख) कुछ न सूझना।
(ग) सिद्धि प्राप्त व्यक्ति। (घ) हवा खाने वाले।

(3) 'राई का पहाड़ बनाना' मुहावरे का अर्थ है—
(क) बढ़ा चढ़ाकर बात करना। (ख) खत्म करना।
(ग) जन्म होना। (घ) मना करना।

(4) साक्षर लोग अनपढ़ लोगों के बीच.....के समान है ।(रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)
(क) घुटने टेकने। (ख) हंसों के बीच कौवें।
(ग) पंडित। (घ) हथियार डालने।

(5) बड़े भाई ने छोटे भाई को ऐसी चुभती बात कही कि वह.....। रिक्त स्थानों की पूर्ति सटीक मुहावरे से कीजिए—
(क) गला काट लेना। (ख) शर्मिंदा होना।
(ग) खून बहाना। (घ) अपना–सा मुँह लेकर रह जाना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित काव्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए—

ऊँचा–ऊँचा महल बणावं, बिच–बिच राखूँ बारी।
साँवरिया रा दरसन पास्यूँ, पहर कुसुम्बी साड़ी।
आधी रात प्रभु दरसण दीज्यों, जमनानी रे तीरां।
मीराँ रा प्रभु गिरधर नागर, हिवड़ो घणों अधीराँ।।

(1) मीरा का हृदय किसके दर्शन के लिए अधीर है?
(क) पति के। (ख) प्रभु के।
(ग) बच्चो के लिए। (घ) धन के लिए।

(2) मीरा महल मे झरोखे क्यों बनाना चाहती है?
(क) धूप के लिए। (ख) हवा के लिए।
(ग) प्रकाश के लिए। (घ) कृष्ण के लिए।

(3) मीरा किस रंग की साड़ी पहनकर हरि दर्शन करना चाहती है ?
(क) कुसुम्बी साड़ी। (ख) हरि साड़ी।
(ग) नीली साड़ी। (घ) श्वेत साड़ी।

(4) मीरा अपने प्रभु के दर्शन कब और कहाँ करना चाहती है?
(क) रात में, यमुनातट पर। (ख) प्रातःकाल, गंगातट पर।
(ग) सायं काल, यमुना तट पर। (घ) रात में, गंगा तट पर।

8. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए—

समझ किताबें पढ़ने से नहीं आती, दुनिया देखने से आती है। हमारी अम्माँ ने कोई दरजा पास नहीं किया और दादा भी शायद पाँचवीं–छठी जमात के आगे नहीं गए, लेकिन हम दोनों चाहे सारी दुनिया की विद्या पढ़ लें, अम्माँ और दादा को हमें समझाने और सुधारने का अधिकार हमेशा रहेगा। केवल इसलिए नहीं कि वे हमारे जन्मदाता हैं, बल्कि इसलिए कि उन्हें दुनिया का हमसे ज्यादा तजुरबा है और रहेगा। अमेरिका में किस तरह की राज–व्यवस्था है, और आठवें हेनरी ने कितने ब्याह किए और आकाश में कितने नक्षत्र हैं, यह बातें चाहे उन्हें न मालूम हों, लेकिन हजारों ऐसी बातें हैं, जिनका ज्ञान उन्हें हमसे और तुमसे ज्यादा है।

(1) प्रस्तुत पंक्तियों के लेखक कौन है?
(क) लीलाधर मंडलोई। (ख) निदा फ़ाज़ली।
(ग) हबीब। (घ) प्रेमचंद।

(2) दादा जी कौन सी जमात तक पढ़े हैं?
(क) पहली–दूसरी। (ख) सातवीं–आठवी।
(ग) पाँचवी–छठवीं। (घ) छठी–सातवीं।

(3) भाई साहब के अनुसार दुनियादारी की समझ किस प्रकार आती है?
(क) किताबों द्वारा। (ख) खेलने से।
(ग) विदेश में पढ़ने से। (घ) दुनिया भ्रमण से।

(4) बड़े भाई साहब के अनुसार दुनियादारी का ज्ञान किसे अधिक है?
(क) छोटे भाई को। (ख) बड़े भाई साहब को।
(ग) लेखक को। (घ) अम्मा और दादा को।

(5) किसे दोनों भाइयों को समझाने का अधिकार था?

(क) लेखक को। (ख) बड़े भाई को।

(ग) अम्मा और दादा को। (घ) पिता को।

9. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

कुछ समय बाद पासा गाँव में 'पशु–पर्व' का आयोजन हुआ। पशु–पर्व में हष्ट–पुष्ट पशुओं के प्रदर्शन के अतिरिक्त पशुओं से युवकों की शक्ति परीक्षा प्रतियोगिता भी होती है। वर्ष में एक बार सभी गाँव के लोग हिस्सा लेते हैं। बाद में नृत्य–संगीत और भोजन का भी आयोजन होता है। शाम से सभी लोग पासा में एकत्रित होने लगे। धीरे–धीरे विभिन्न कार्यक्रम शुरू हुए। ततॉंरा का मन इन कार्यक्रमों में तनिक न था। उसकी व्याकुल आँखें वामीरो को ढूँढ़ने में व्यस्त थीं। नारियल के झुंड के एक पेड़ के पीछे से उसे जैसे कोई झाँकता दिखा। उसने थोड़ा और करीब जाकर पहचानने की चेष्टा की। वह वामीरो थी जो भयवश सामने आने में झिझक रही थी। उसकी आँखें तरल थीं। होंठ काँप रहे थे।

(क) पासा गाँव में क्या आयोजन हुआ?

(क) मेला। (ख) पशु पर्व।

(ग) शादी समारोह। (घ) प्रतियोगिता।

(ख) पशु पर्व वर्ष में कितनी बार होता है—

(क) 1 बार। (ख) 2 बार।

(ग) 3 बार। (घ) 4 बार।

(ग) पशु पर्व में कैसे पशुओं का प्रदर्शन होता है?

(क) कमजोर। (ख) लाचार।

(ग) हष्ट पुष्ट। (घ) काले सफेद।

(घ) वामीरो क्या कर रही थी?

(क) नृत्य कर रही थी। (ख) गीत गा रही थी।

(ग) झाँक रही थी। (घ) खेल रही थी।

(ङ) वामीरो कहाँ खड़ी थी?

(क) भीड़ के बीच। (ख) पेड़ के पीछे।

(ग) पशुओं के बीच। (घ) छत पर।

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Sample Paper 4

Hindi 'B'

खण्ड – (क)

(अपठित गद्यांश)

1. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—
यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

कहा जाता है कि साहित्य समाज का दर्पण होता है। साहित्यकार जो भी अपने समाज में देखता है उसे अपने साहित्य में उतारता है। समाज में घटने वाली घटनाओं से वह स्वयं तो प्रभावित होता है एवं जनता पर इसका कैसा प्रभाव पड़ता है उसकी जाँच–पड़ताल कर वह साहित्य–सृजन करता है। अतः कहा जा सकता है कि साहित्य के बिना समाज निष्प्राण एवं जड़ है तो समाज के बिना साहित्य की रचना संभव नहीं। 'साहित्य' शब्द में ही समाज छिपा हुआ है। यदि 'स+हित' शब्द से साहित्य की व्युत्पत्ति करें तो प्रश्न उठेगा ही कि हित किसका? व्यक्ति का हित अथवा रचनाकार का हित का महत्व भी समाज की सापेक्षता में ही है। इसलिए पूरी व्युत्पत्ति का विश्लेषण करने पर साहित्य समाज का पूरक ही माना जाता है।

किसी भी राष्ट्र या समाज के सांस्कृतिक स्तर का अनुमान उनके साहित्य द्वारा लगाया जा सकता है। साहित्य न केवल समाज का दर्पण है बल्कि एक दीपक के समान है, जो समाज की बुराइयों की ओर ध्यान दिलाता है। विद्वानों ने भी किसी देश को बिना साहित्य के मृतक माना है–

Þv/kdkj g ogk tgk vkfnR; ugh g
e nk g og n'k tgk lkfgR; ugh gAß

माना जाता है कि किसी भी देश की सभ्यता और संस्कृति जानने के लिए वहाँ का साहित्य पढ़ना ही पर्याप्त होता है। जो कार्य बड़े से बड़ा योद्धा नहीं कर सकता वह कार्य साहित्यकार केवल अपनी कलम द्वारा ही कर सकता है वह जनता को जागरूक कर सकता है, सही दिशा में ला सकता है। इसका स्पष्ट उदाहरण हमारा स्वाधीनता संग्राम है जहाँ तलवारों के साथ–साथ कलम के सिपाहियों को भी भुलाया नहीं जा सकता। अतः महावीर प्रसाद द्विवेदी जी का कथन पूर्व से युक्तिसंगत है कि साहित्य समाज का दर्पण है क्योंकि यह केवल मनोरंजन ही नहीं करता अपितु समाज का मार्गदर्शन कर उसके भीतरी व बाहरी रूप को सबके सामने लाता है।

(1) साहित्य समाज का क्या है?
(क) प्रभाव। (ख) प्रमाण।
(ग) दर्पण। (घ) कुछ भी नहीं।

(2) साहित्यकार क्या करता है?
(क) समाज को देखता है। (ख) महसूस करता है।
(ग) साहित्य में डालता है। (घ) उक्त सभी।

(3) किसी समाज की संस्कृति जानने के लिए क्या करना होगा?
(क) घूमना होगा। (ख) लोगों को देखना होगा।
(ग) समय पर जाना होगा। (घ) केवल साहित्य पढ़ना होगा।

(4) साहित्य शब्द का अर्थ होगा—
(क) स + हित। (ख) सहित।
(ग) सबका हित। (घ) शहीत।

(5) गद्यांश का उचित शीर्षक बताइए—
(क) साहित्य और समाज। (ख) साहित्य।
(ग) समाज। (घ) अन्य कोई।

vFkok

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए।

प्रकृति और मनुष्य का साथ अनादि काल से रहा है। मनुष्य प्रकृति की गोद में पल–बढ़कर जीवनयापन करने लायक बना है। हरे–भरे छायादार पेड़ उसके सबसे अच्छे मित्र थे, जिन्होंने व्यक्ति को भूख मिटाने को फल, तन ढ़ँकने को पत्तियाँ और छाल तथा आश्रय दिया।

प्रकृति के विभिन्न अंगों–पेड़, बादल, नदी, पहाड़, झरने आदि ने मनुष्य को अपनी ओर आकर्षित किया और विविध रूपों से कल्याण भी किया है। दुर्भाग्य से कृतघ्न मनुष्य ने प्रकृति को सोने का अंडा देने वाली मुर्गी समझ लिया और एक ही बार में सब कुछ पा लेने के लिए उस पर अत्याचार तथा पेड़ों की अंधाधुन कटाई करना शुरु कर दिया। अत्यधिक वर्षा, भू–क्षरण, प्रदूषण जैसी समस्याएँ उठ खड़ी हुई हैं। इनसे मुक्ति पाने के लिए हमें वरदायिनी प्रकृति की शरण में जाना होगा।

(1) मनुष्य प्रकृति का साथ कब से रहा है?
(क) भूतकाल। (ख) भविष्यकाल।
(ग) वर्तमान काल। (घ) अनादिकाल।

(2) प्रकृति ने मनुष्य को क्या–क्या दिया है?
(क) भूख मिटाने को फल। (ख) तन ढंकने को पत्तियाँ।
(ग) छाल तथा आश्रय। (घ) उक्त सभी।

(3) मनुष्य ने एक ही बार में सब कुछ पा लने के लिए प्रकृति के साथ क्या किया?
(क) पेड़ों की अंधाधुन कटाई। (ख) अंडा देने वाली मुर्गी समझ लिया।
(ग) पेड़ लगाए। (घ) पेड़ लगाने का नारा दिया।

(4) प्रकृति के विभिन्न अंग कौन–कौन से हैं?
(क) घर–मकान। (ख) मैदान–विद्यालय।
(ग) पेड़–बादल, नदी, पहाड़। (घ) सभा–संसद।

(5) उपरोक्त गद्यांश का क्या शीर्षक हो सकता है?
(क) विज्ञान एक चमत्कार। (ख) प्रकृति और हम।
(ग) पेड़ और बादल। (घ) वरदायिनी प्रकृति।

2. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिए—

यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

प्रत्येक व्यक्ति के जीवन में कई उतार–चढ़ाव का समय भी आता है। अनेक बार कुछ ऐसा समय भी आता है, जब असफलताओं का अंधकार उसे घेर लेता है। तब इस समय व्यक्ति में निराशा आ जाती है। निराश व्यक्ति का चेहरा मुरझा जाता है। उसमें हीनता की भावना आ जाती है। वह अपनी निराशा के कारण स्वयं को दोषी ठहराता है। वह अपने जीवन को बोझ समझने लगता है। कई बार निराशा गहरी हताशा में बदल जाती है। व्यक्ति अवसाद नामक रोग का शिकार बन जाता है। वही स्वयं को सदैव थका हुआ–सा अनुभव करने लगता है। उसे भूख नहीं लगती है। वह जीवन के प्रति अनासक्त हो जाता है। उसकी आँखों में सूनेपन का कोहरा–सा छा जाता है। गहरी निराशा की स्थिति में अनेक व्यक्ति मानसिक संतुलन खो देते हैं। अत्यधिक निराशा जीवन का अंत ले आती है। अतः हमें निराशा को त्यागकर आशा का साथ देना चाहिए।

(1) निराश व्यक्ति का चेहरा कैसा हो जाता है?
(क) मुस्कुराया हुआ। (ख) खिला हुआ।
(ग) परेशान। (घ) मुरझाया हुआ।

(2) निराश व्यक्ति जीवन के प्रति कैसा हो जाता है?
(क) उत्सुक। (ख) आसक्त।
(ग) सरस। (घ) अनासक्त।

(3) निराशा का क्या कारण है?
(क) जीवन के उतार–चढ़ाव। (ख) असफलता का अंधकार।
(ग) मानसिक असंतुलन। (घ) उक्त सभी।

(4) निराश व्यक्ति को कौन–सा रोग हो जाता है?
(क) आवशाद। (ख) अवसाद।
(ग) अवशेष। (घ) अवयव।

(5) उपरोक्त गद्यांश का क्या शीर्षक हो सकता है?
(क) निराशा का त्याग। (ख) जीवन के उतार–चढ़ाव।
(ग) असफलता का अंधकार। (घ) अनासक्त जीवन।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

'लड़का–लड़की जब होगा एक समान, तब भारत बनेगा महान्।' वास्तव में लड़कों और लड़कियों के प्रति हमारे देश में समान रूप से व्यवहार नहीं किया जाता है। नगरीय क्षेत्रों में कुछ हद तक समानता है, परंतु ग्रामीण क्षेत्रों में लड़का–लड़की में आकाश–पाताल का अंतर समझा जाता है। निरक्षरता, लिंग, गलत व्याख्या, महिलाओं के प्रति पुरुषों की भावना, चेतना की कमी आदि लैंगिक समानता को सुनिश्चित करने में हमारी असफलता के लिए जिम्मेदार है। हमारे देश में महिलाओं को नये प्रतिबंधों का सामना करना पड़ता है। कुछ परिवार लिंग भेद–भाव के कारण शिक्षा से वंचित है। समाज और राष्ट्र के विकास के लिए हमें लड़कियों के प्रति अपनी सोच बदलनी चाहिए। एक शिक्षित महिला पूरे समाज को बदलने की शक्ति रखती है। महिलाओं को ठीक से शिक्षित और नियोजित किया जाना चाहिए। उन्हें समाज के विभिन्न क्षेत्रों में उचित सम्मान और क्षमता दी जानी चाहिए। महिलाओं और पुरुषों की समान भागीदारी ही समाज को बदल सकती है।

(1) भारत में लड़कों और लड़कियों के प्रति कैसा व्यवहार होता है?
(क) समानता। (ख) असमानता।
(ग) अंतर। (घ) बराबरी।

(2) लैंगिक असमानता को सुनिश्चित करने में क्या–क्या जिम्मेदार है?
(क) निरक्षरता। (ख) लिंग, गलत व्याख्या।
(ग) महिलाओं के प्रति पुरुषों की भावना। (घ) उक्त सभी।

(3) समाज और राष्ट्र के विकास के लिए हमें क्या करना होगा?
(क) आगे बढ़ना चाहिए। (ख) लड़कियों के प्रति अपनी सोच बदलनी चाहिए।
(ग) काम करना चाहिए। (घ) लड़कों के प्रति अपनी सोच बदलनी चाहिए।

(4) समाज कब बदल सकता है?
(क) महिलाओं और पुरुषों की समान भागीदारी से। (ख) निरक्षरता से।
(ग) एक शिक्षित महिला से। (घ) चेतना की कमी से।

(5) उपरोक्त अनुच्छेद का शीर्षक क्या होगा?
(क) महिलाओं के प्रति पुरुषों की भावना। (ख) एक शिक्षित महिला।
(ग) लड़का–लड़की एक समान। (घ) लैंगिक असमानता।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) <u>कक्षा में हिंदी पढ़ाने वाले शिक्षक</u> बहुत योग्य होते हैं। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

(2) पानी में डूबते हुए बच्चे को उसने बचा लिया। (वाक्य में सर्वनाम पदबंध है)
(क) पानी में डूबते हुए। (ख) उसने बचा लिया।
(ग) बच्चे को उसने। (घ) पानी में डूबते हुए बच्चे को उसने।

(3) बच्चे <u>पढ़ते–पढ़ते सो गए।</u> (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) क्रिया पदबंध। (घ) संज्ञा पदबंध।

(4) <u>मेरे मित्र सबसे ऊपर वाले</u> कमरे में रहते हैं। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) क्रिया–विशेषण पदबंध। (घ) संज्ञा पदबंध।

(5) वह <u>अध्ययनशील और परिश्रमी</u> छात्र है। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

4. निर्देशानुसार पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) निम्नलिखित वाक्यों में से मिश्र वाक्य छाँटकर लिखिए–

(क) अध्यापक ने प्रश्न पूछा कि तुम कहाँ रहते हो? (ख) अध्यापक ने प्रश्न पूछा है। तुम कहाँ रहते हो?

(ग) तुम कहाँ रहते हो, ऐसा अध्यापक ने पूछा। (घ) अध्यापक ने प्रश्न पूछा तुम कहाँ रहते हो?

(2) मैंने बहुत कोशिश की, किन्तु असफल रहा। (संयुक्त वाक्य में बदलिए)

(क) मैं कोशिश के बाद भी असफल रहा। (ख) मैंने सफल होने की कोशिश की, पर असफल रहा।

(ग) मैंने बहुत कोशिश की,किन्तु असफल रहा। (घ) सभी त्रुटिपूर्ण हैं।

(3) निम्नलिखित वाक्यों में से सरल वाक्य छाँटकर लिखिए–

(क) भीड़ भाड़ के कारण मैं नहीं आया। (ख) उसने कहा कि चुप हो जाओ।

(ग) मै घर आया और सो गया। (घ) मेहमान आ गए तब केक काटा गया।

(4) तनावहीन रहो और रोगों से मुक्त रहो। (मिश्रित वाक्य में बदलिए)

(क) तनावहीन रहोगे, रोगों से मुक्त रहोगे। (ख) यदि तनावहीन रहोगे तो रोगों से मुक्त रहोगे।

(ग) तनावहीनता रोगों से मुक्ति है। (घ) सभी त्रुटिपूर्ण हैं।

(5) अश्मित पुस्तकें लेने बाजार गई। (संयुक्त वाक्य में बदलिए)

(क) अश्मित बाजार गई और उसने पुस्तकें खरीदी। (ख) अश्मित ने बाजार से पुस्तकें ली।

(ग) बाजार जाकर अश्मित ने पुस्तकें ली। (घ) अश्मित ने पुस्तकें ली बाजार जाकर।

5. निम्नलिखित छः भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) 'इन्द्रियों को जीतने वाला' समस्तपद बताइए।

(क) जितेन्द्रिय। (ख) प्रत्युत्तर।

(ग) ज्ञानेन्द्रिय। (घ) जैनेन्द्रिय।

(2) 'यावज्जजीवन' में कौन–सा समास है?

(क) तत्पुरुष समास। (ख) बहुव्रीहि समास।

(ग) कर्मधारय समास। (घ) अव्ययीभाव समास।

(3) वाक्पटु का विग्रह है–

(क) बात की पटु। (ख) वाक् में पटु।

(ग) बातूनी। (घ) बकबकी।

(4) उसे मृत्यु का दंड मिला। (रेखांकित पदों का समस्तपद बताकर समास का नाम बताइए)

(क) मृत्युदंड /तत्पुरुष। (ख) मृत्युदंड /द्विगु समास।

(ग) मृत्युदंड /कर्मधारय। (घ) मृत्युदंड /अव्ययीभाव।

(5) आकंठ का विग्रह बताइए–

(क) अकंठ। (ख) कंठ में।

(ग) कंठ तक। (घ) कोई भी नहीं।

(6) निम्न में कौन–सा कर्मधारय समास है?

(क) चक्रपाणी। (ख) चतुर्युगम।

(ग) श्वेतांबर। (घ) माता–पिता।

6. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के उत्तर निर्देशानुसार दीजिए तथा सर्वाधिक उपयुक्त विकल्प का चयन कीजिए–

(1) बहुत दिनों से इस काम में लगे हो अब इसकी----------कर ही दो। (रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)

(क) इति श्री करना। (ख) आकाश पाताल एक करना।

(ग) अवसर ताकना। (घ) ईद का चाँद।

(2) 'शेर के दाँत गिनना' मुहावरे का अर्थ बताइए।

(क) कल्पना लोक। (ख) कुछ न सूझना।

(ग) सिद्धि प्राप्त व्यक्ति। (घ) दुस्साहस करना।

(3) 'हिरन हो जाना' मुहावरे का अर्थ है–

(क) बढ़ा चढ़ाकर बात करना। (ख) खत्म करना।

(ग) गायब होना। (घ) मना करना।

(4) मुहल्ले में हुई लड़ाई को----------बनाया गया।(रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)
(क) घुटने टेकने। (ख) सिक्का जमाना।
(ग) राई का पहाड़। (घ) हथियार डालने।

(5) रामू की शराब की आदत ने उसके परिवार की----------है। (रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करे।)
(क) बाजी लगा देना। (ख) बेइज्जत करना।
(ग) इज्ज़त मिट्टी में मिलाना। (घ) शर्मसार करना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित काव्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

ऐसी बाँणी बोलिए, मन का आपा खोइ।
अपना तन सीतल करै, औरन कौं सुख होइ।।
कस्तूरी कुंडलि बसै, मृग ढूँढै बन माँहि।
ऐसैं घटि घटि राम है, दुनियाँ देखै नाँहिं।

(1) हमें कैसी वाणी बोलनी चाहिए?
(क) कर्कश। (ख) कठोर।
(ग) मधुर। (घ) कड़वी।

(2) मीठी वाणी से क्या होता है?
(क) शांति मिलती है। (ख) अहंकार समाप्त हो जाता है।
(ग) संबंध सुदृढ़ होते हैं। (घ) उक्त सभी।

(3) कस्तूरी कहाँ मिलती है?
(क) मृग के कान में। (ख) मृग के पेट में।
(ग) मृग की नाभि में। (घ) मृग के सिर पर।

(4) राम कहाँ कहाँ मिलते हैं?
(क) मंदिर। (ख) चर्च।
(ग) गुरुद्वारा। (घ) कण कण में।

8. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

कह दिया–'समय की पाबंदी' पर एक निबंध लिखो, जो चार पन्नों से कम न हो। अब आप कॉपी सामने खोले, कलम हाथ में लिए उसके नाम को रोइए। कौन नहीं जानता कि समय की पाबंदी बहुत अच्छी बात है। इससे आदमी के जीवन में संयम आ जाता है, दूसरों का उस पर स्नेह होने लगता है और उसके कारोबार में उन्नति होती है, लेकिन इस जरा–सी बात पर चार पन्ने कैसे लिखें? जो बात एक वाक्य में कही जा सके, उसे चार पन्नों में लिखने की जरूरत? मैं तो इसे हिमाकत कहता हूँ। यह तो समय की किफायत नहीं, बल्कि उसका दुरुपयोग है कि व्यर्थ में किसी बात को ठूँस दिया जाए। हम चाहते हैं, आदमी को जो कुछ कहना हो, चटपट कह दे और अपनी राह ले। मगर नहीं, आपको चार पन्ने रँगने पड़ेंगे, चाहे जैसे लिखिए और पन्ने भी पूरे फुलस्केप आकार के। यह छात्रों पर अत्याचार नहीं, तो और क्या है?

(1) 'समय की पाबंदी' पर क्या लिखने को दिया गया?
(क) अनुच्छेद। (ख) निबंध।
(ग) नाटक। (घ) कहानी।

(2) 'समय की पाबंदी' से जीवन में क्या आता है?
(क) अहंकार। (ख) क्रोध।
(ग) संयम। (घ) आलस।

(3) भाई साहब के अनुसार समय का दुरुपयोग है–
(क) निबंध लिखना। (ख) एक बात को बढ़ा–चढ़ाकर चार पन्नों में लिखना।
(ग) चार पन्नों में लिखना। (घ) कलम से लिखना।

(4) 'समय की पाबंदी' से क्या होता है?
(क) कारोबार में उन्नति। (ख) जीवन में संयम आता है।
(ग) एक अच्छा गुण है। (घ) उक्त सभी।

(5) निबंध लिखने से भाई साहब का क्या अभिप्राय है?

(क) इससे समय की बर्बादी होती है। (ख) छात्रों पर उपकार है।

(ग) समाज का उद्धार है। (घ) अच्छा गुण है।

9. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

मेरी माँ कहती थी, सूरज ढले आँगन के पेड़ों से पत्ते मत तोड़ो, पेड़ रोएँगे। दीया–बत्ती के वक्त फूलों को मत तोड़ो, फूल बद्दुआ देते हैं। दरिया पर जाओ तो उसे सलाम किया करो, वह खुश होता है। कबूतरों को मत सताया करो, वे हज़रत मुहम्मद को अजीज हैं। उन्होंने उन्हें अपनी मज़ार के नीले गुंबद पर घोंसले बनाने की इज़ाजत दे रखी है। मुर्गे को परेशान नहीं किया करो।

(1) इस गद्यांश के लेखक का नाम लिखिए–

(क) सीताराम सेकसरिया। (ख) प्रेमचंद।

(ग) हबीव तनवीर। (घ) निदा फाजली।

(2) लेखक की माँ लेखक को किसके प्रति उपदेश देती थी?

(क) नदी के प्रति। (ख) जल के प्रति।

(ग) प्रकृति के प्रति। (घ) इनमें से कोई नहीं।

(3) माँ खुदा का नाम क्यों लेती थी?

(क) उसका बेटा उसकी बात माने। (ख) उसको प्रेम करे।

(ग) उसका सम्मान करे। (घ) इनमें से कोई नहीं।

(4) लेखक किसके प्रति सम्मान का भाव रखता है?

(क) अपने प्रति। (ख) पक्षियों के प्रति

(ग) हज़रत मुहम्मद के प्रति। (घ) दयालुओं के प्रति।

(5) मुर्गा सुबह उठकर क्या करता है?

(क) चिल्लाता है। (ख) बाँग देता है।

(ग) घूमता है। (घ) इनमें से कोई नहीं।

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Sample Paper 5

Hindi 'B'

खण्ड – (क)

(अपठित गद्यांश)

1. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए— यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

आज का युग एक प्रकार से पैसे का युग है। चारों ओर लोभी भरे पड़े हैं। धन की ही पुकार सुनाई पड़ती है। व्यक्ति के गुण की अपेक्षा, उसके स्तर को महत्व दिया जा रहा है। किसी गरीब लेखक, कवि या विद्वान का आदर, करोड़पतियों की अपेक्षा कम होता है। धनलोलुपों का ही बोलबाला है और इनकी सफलता हजारों मेहनतियों को दुःख और विषाद में डाल देती है। बुद्धि की दुनिया में सफलता से समाज की उन्नति में सहायता मिलती है। धनी, धन के घमंड में अपना चरित्र खो बैठता है और धनहीन उसे ही अपना सब कुछ समझकर अपनाता है। चरित्रवान पुरुष चरित्र को ईश्वर का एक आदेश मानता है और धन–संचय तथा लाभ–हानि की चिंता किए बिना निःस्वार्थ भाव से अपने कार्य करता है, इसीलिए हम सब चरित्रवान पर भरोसा करते हैं। संसार में विजय पाने के लिए चरित्र बड़ा मूल्यवान साधन होता है। चरित्र के मार्ग पर चलने वाला आदमी सच्चे अर्थों में महान होता है।

(1) आज का युग किसका युग है?
(क) भाषा का। (ख) संस्कृति का।
(ग) संस्कारों का। (घ) पैसों का।

(2) व्यक्ति के गुणों की अपेक्षा किसे अधिक महत्व दिया जा रहा है?
(क) धार्मिकता को। (ख) सामाजिक स्तर को।
(ग) आर्थिक स्तर को। (घ) रंग–रूप को।

(3) चारों ओर किस तरह के लोग भरे पड़े हैं?
(क) संस्कारी। (ख) लोभी।
(ग) सज्जन। (घ) चरित्रवान।

(4) धनी किसके घमंड में अपना चरित्र खो बैठता है?
(क) धन के घमंड में। (ख) पुत्र के घमंड में।
(ग) मित्रों के घमंड में। (घ) व्यवसाय के घमंड में।

(5) संसार में विजय पाने के लिए मूल्यवान साधन क्या है?
(क) धन (ख) गुलामी
(ग) चरित्र (घ) बुद्धि

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 1 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए।

निस्संदेह यह फैशन विद्यार्थियों के लिए महँगा सौदा है। वे घरवालों के लिए समस्या बन जाते हैं। अध्यापक उन्हें सिरदर्द समझते हैं। समाज, जो उन्हें भावी भारत समझता है उसकी आशाएँ निराधार हो जाती हैं, क्योंकि बचपन की चंचलता के कारण सस्ती भावना में भटककर वे अपने बहुमूल्य उद्देश्य 'विद्या' को भूल जाते हैं। हमारी वेशभूषा का अच्छा या बुरा प्रभाव दूसरों की अपेक्षा हम पर अधिक पड़ता है। उसका प्रभाव हमारी भौतिक उन्नति पर ही नहीं, चरित्र पर भी पड़ता है। अंग्रेजी के प्रसिद्ध विचारक और लेखक एमर्सन का कहना है कि सौम्य वेश से जो आत्मशांति मिलती है, वह धर्म से भी नहीं मिलती। सौम्य वेशधारी छात्र अपने मार्ग से भटकता नहीं है। उसका ध्यान केवल और केवल लक्ष्य पर केन्द्रित रहता है। और ऐसे ही लोगों की आज जरूरत है, ताकि हमारा देश उन्नति की ओर निरन्तर अग्रसर रहे।

(1) विद्यार्थियों के लिए महँगा सौदा क्या है?
(क) पुस्तक। (ख) खान–पान।
(ग) फैशन। (घ) अध्ययन।

(2) हमारी वेशभूषा का प्रभाव किस पर अधिक पड़ता है?

(क) स्वयं हम पर। (ख) दूसरों पर।

(ग) अभिभावकों पर। (घ) शिक्षकों पर।

(3) 'सौम्य वेश से जो आत्मशांति मिलती है, वह धर्म से भी नहीं मिलती' यह कथन किसका है?

(क) अरस्तु का। (ख) प्लेटो का।

(ग) एमर्सन का। (घ) महात्मा गाँधी का।

(4) कैसे लोगों से हमारा देश उन्नति कर सकता है?

(क) फैशन वाले विद्यार्थियों से। (ख) सौम्य वेशधारी छात्रों से।

(ग) सीधे, सरल छात्रों से। (घ) चतुर छात्रों से।

(5) कौन अपने मार्ग से नहीं भटकता है?

(क) चतुर व्यक्ति। (ख) सरल व सीधा व्यक्ति।

(ग) विद्वान छात्र। (घ) सौम्य वेशधारी छात्र।

2. नीचे दो गद्यांश दिए गए हैं। किसी एक गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिए— यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-1 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

'धर्म' एक व्यापक शब्द है। मजहब, मत, पंथ या सम्प्रदाय तो सीमित रूप हैं। संसार के सभी धर्म मूल रूप से एक ही हैं चाहे उनका नाम अलग–अलग दिया गया है। जैसे–हिन्दू, ईसाई, मुस्लिम, सिक्ख, बहाई, पारसी, जैन, बौद्ध, जूडिज्म आदि। सभी धर्म मनुष्य के साथ सद्व्यवहार करना सिखाते हैं। ईश्वर किसी विशेष धर्म या जाति का नहीं है। सभी प्राणियों में एक प्राण स्पन्दन होता है। उनके रक्त का रंग भी एक ही है। सुख–दुःख का भावबोध भी सभी प्राणियों में एक जैसा है। आकृति और वर्ण, वेशभूषा या रीति–रिवाज तथा हरेक प्राणी का अलग नाम, ये सभी ऊपरी वस्तुएँ हैं। ईश्वर ने मनुष्य या इंसान को बनाया है और इंसान ने धर्म या मज़हब को। ध्यान रहे मानवता व इंसानियत से बड़ा धर्म या मज़हब दूसरा कोई नहीं। यह मिलना सिखाता है, अलगाव नहीं। धर्म तो एकता का द्योतक है। कुछ विद्वानों का कहना है कि धार्मिक संस्कारों से ही धर्म की पहचान है अर्थात् संस्कार ही धर्म है, संस्कार से ही संस्कृति और धर्म का जन्म होता है। संस्कार ही सभ्यता की निशानी है। संस्कारहीन व्यक्ति पशुवत और असभ्य है।

(1) धर्म को किसने बनाया ?

(क) ईश्वर ने। (ख) मनुष्य ने।

(ग) छात्रों ने। (घ) ऋषियों ने।

(2) सबसे बड़ा धर्म क्या है?

(क) मानवता। (ख) भक्ति।

(ग) त्याग। (घ) प्रार्थना।

(3) किसे पशुवत और असभ्य कहा गया है?

(क) बुद्धिहीन व्यक्ति को। (ख) चतुर व्यक्ति को।

(ग) संस्कारहीन व्यक्ति को। (घ) क्रूर व्यक्ति को।

(4) संस्कृति और धर्म का जन्म किससे होता है?

(क) आचार–विचार से। (ख) व्यवहार से।

(ग) गुणों से। (घ) संस्कार से।

(5) एकता का द्योतक क्या है?

(क) संस्कृति। (ख) सभ्यता।

(ग) धर्म। (घ) आचार–विचार।

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यदि आप इस गद्यांश का चयन करते हैं तो कृपया उत्तर पुस्तिका में लिखिए कि आप प्रश्न संख्या 2 में दिए गए गद्यांश-2 पर आधारित प्रश्नों के उत्तर लिख रहे हैं।

नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़िए और उस पर आधारित प्रश्नों के उत्तर सही विकल्प चुनकर लिखिए—

हमारे देश में महिलाएँ प्राचीन काल से घर की देखभाल करती हैं और पुरूष बाहर के काम करते हैं। इस विचारधारा ने लड़कियों को पढ़ने–लिखने से वंचित कर रखा है। माता–पिता लड़कियों की शिक्षा की नहीं, उनके विवाह की चिंता अधिक करते हैं। गाँवों में लड़कियों की स्थिति युगों पुरानी–सी ही है। बहुत कम माता–पिता लड़कियों को पढ़ाते हैं। नगरों में चेतना आई है। गाँवों में लड़कियों की शिक्षा के लिए उचित प्रबंध भी नहीं है। लड़कियों को घर–गृहस्थी के काम सिखाने में जितनी गंभीरता दिखाई जाती है, उतनी उन्हें शिक्षित करने में

नहीं दिखाई जाती। इसी कारण भारत की आधी जनसंख्या अशिक्षित या अर्धशिक्षित रह जाती है। नगरों में नौकरी करने वाली महिलाओं की स्थिति और बुरी है। वे नौकरी की जिम्मेदारी भी निभाती हैं और गृहस्थी का सारा काम भी संभालती हैं। लिंग के आधार पर यह भेदभाव अनुचित है।

(1) हमारे देश में महिलाएँ प्राचीन काल से क्या करती हैं?
(क) पढ़ती हैं। (ख) देश की रक्षा करती हैं।
(ग) घर की देखभाल। (घ) शास्त्रों में निपुण हैं।

(2) माता–पिता लड़कियों के विषय में क्या चिंता करते हैं?
(क) उनकी शिक्षा की। (ख) उनके विवाह की।
(ग) उनकी नौकरी की। (घ) भविष्य की।

(3) कहाँ चेतना आई है?
(क) नगरों में। (ख) गाँवों में।
(ग) घरों में। (घ) स्कूलों में।

(4) भारत की आधी जनसंख्या कैसी रह जाती है?
(क) अविवाहित। (ख) रोगग्रस्त।
(ग) अशिक्षित। (घ) बेरोजगार।

(5) यह भेदभाव किस आधार पर है?
(क) शिक्षा। (ख) लिंग।
(ग) जाति। (घ) वर्ण।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) चार ताकतवर मजदूर इस भारी चीज को उठा पाए। (रेखांकित पदबंध का प्रकार बताइए)
(क) सर्वनाम पदबंध। (ख) विशेषण पदबंध।
(ग) संज्ञा पदबंध। (घ) क्रिया पदबंध।

(2) किस्मत के मारे हम कहाँ आकर फँस गए। (रेखांकित पदबंध का प्रकार बताइए)
(क) संज्ञा पदबंध। (ख) सर्वनाम पदबंध।
(ग) क्रिया पदबंध। (घ) विशेषण पदबंध।

(3) तेज चलने वाली गाड़ियाँ प्रायः देर से पहुँचती हैं। (रेखांकित पदबंध का प्रकार बताइए)
(क) संज्ञा पदबंध। (ख) सर्वनाम पदबंध।
(ग) क्रिया पदबंध। (घ) विशेषण पदबंध।

(4) वह बाजार की ओर आया होगा। (रेखांकित पदबंध का प्रकार बताइए)
(क) संज्ञा पदबंध। (ख) सर्वनाम पदबंध।
(ग) क्रिया पदबंध। (घ) विशेषण पदबंध।

(5) मैंने रमा की आधी रात तक प्रतीक्षा की। (रेखांकित पदबंध का प्रकार बताइए)
(क) संज्ञा पदबंध। (ख) क्रिया पदबंध।
(ग) विशेषण पदबंध। (घ) क्रिया विशेषण पदबंध।

4. निर्देशानुसार पाँच भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए–

(1) निम्नलिखित वाक्यों में से मिश्रित वाक्य छाँटकर लिखिए–
(क) कविता और काव्या आई। (ख) कविता काव्या को लेकर आई।
(ग) कविता आई और काव्या चली गई। (घ) जैसे ही कविता आई काव्या चली गई।

(2) जो ईमानदार व्यक्ति होते हैं वे सफल होते हैं। (सरल वाक्य में बदलिए)
(क) जो ईमानदार हैं वही सफल हैं। (ख) ईमानदार व्यक्ति सफल होंगे।
(ग) ईमानदार ही सफल होता है। (घ) सफल व्यक्ति ही ईमानदार हैं।

(3) निम्नलिखित वाक्यों में से सरल वाक्य छाँटकर लिखिए—

(क) लोग इस बात पर हँसते होंगे। (ख) जैसे ही यह बात हुई लोग हँसने लगे।

(ग) राम ने यह बात कही तो सब हँसने लगे। (घ) इनमें से कोई नहीं।

(4) रात हुई और तारे निकले—(मिश्र वाक्य में बदलिए)

(क) रात में तारे निकले। (ख) तारे रात में निकले।

(ग) जैसे ही रात हुई, तारे निकल आए। (घ) तीनों त्रुटिपूर्ण हैं।

(5) सोमेश बिना बोले चला गया। (संयुक्त वाक्य में बदलिए)

(क) सोमेश आकर बोला। (ख) सोमेश आया था किंतु बिना बोले चला गया।

(ग) सोमेश आया। (घ) सोमेश चला गया।

5. निम्नलिखित छः भागों में से किन्हीं चार प्रश्नों के सही उत्तर वाले विकल्प चुनिए—

(1) ''अंधा है जो कूप'' समस्त पद बताइए—

(क) अंधा व्यक्ति। (ख) आँखें।

(ग) अंध कूप। (घ) कुआँ।

(2) 'आत्मा पर विश्वास' समस्त पद बताइए—

(क) आत्मा। (ख) आत्मविश्वास।

(ग) विश्वास। (घ) मृत्यु।

(3) व्यर्थ का विग्रह बताइए—

(क) अर्थ के बिना। (ख) बेकार।

(ग) अर्थ नहीं है जिसका। (घ) फिजूल।

(4) ग्रंथरत्न का विग्रह है—

(क) आभूषण। (ख) ग्रंथ रूपी रत्न।

(ग) ग्रंथ है जिसका रूप। (घ) सौन्दर्य।

(5) व्यर्थ में कौन–सा समास है?

(क) तत्पुरुष समास। (ख) बहुव्रीहि समास।

(ग) द्वंद्व समास। (घ) अव्ययीभाव समास।

(6) पाप–पुण्य में कौन–सा समास है?

(क) कर्मधारय। (ख) द्वंद्व।

(ग) तत्पुरुष। (घ) बहुव्रीहि।

6. निम्नलिखित पाँच भागों में से किन्हीं चार प्रश्नों के उत्तर निर्देशानुसार दीजिए तथा सर्वाधिक उपयुक्त विकल्प का चयन कीजिए—

(1) वाह ! कितना सुन्दर लिखा है! तुमने तो ..... तोड़ दी।

(रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा करें।)

(क) फूल। (ख) कलम ही।

(ग) डंडा ही। (घ) लकड़ी ही।

(2) मुँह फुलाना मुहावरे का अर्थ बताइए—

(क) रूठ जाना। (ख) सिर चढ़ना।

(ग) भयभीत होना। (घ) मोटा होना।

(3) हाथ पसारना मुहावरे का अर्थ है—

(क) मद्द करना। (ख) आरंभ करना।

(ग) माँगना। (घ) देना।

(4) आस्तीन का साँप मुहावरे का अर्थ बताइए—

(क) साँप देखना। (ख) मित्र बनकर धोखा देने वाला।

(ग) परम मित्र। (घ) शत्रु।

(5) टस से मस न होना का अर्थ है—

(क) कठोर होना। (ख) अपनी बातों से नहीं हटना।

(ग) जगह बदलना। (घ) सहन करना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. निम्नलिखित काव्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

हरि आप हरो जन री भीर।
द्रोपदी री लाज राखी, आप बढ़ायो चीर।
भगत कारण रूप नरहरि, धर्‌यो आप शरीर।
बूढ़तो गजराज राख्यो, काटी कुब्जर पीर।
दासी मीराँ लाल गिरधर, हरो म्हारी भीर।।

(1) प्रस्तुत पंक्तियों में कवयित्री के आराध्य कौन हैं?
(क) श्रीराम। (ख) श्रीकृष्ण।
(ग) शिव। (घ) विष्णु।

(2) श्रीकृष्ण ने द्रोपदी की लाज कैसे रखी?
(क) लड़ाई करके। (ख) लज्जित करके।
(ग) साड़ी के कपड़े को बढ़ाकर। (घ) इनमें से कोई नहीं।

(3) मीरा ने हरि से क्या विनती की है?
(क) अपनी पीड़ा हरने की। (ख) दर्शन देने की।
(ग) धनवान बनने की। (घ) भोजन की।

(4) श्रीकृष्ण ने अपने भक्त प्रह्लाद को बचाने के लिए किसका रूप धारण किया?
(क) भगवान का। (ख) भिखारी का।
(ग) मनुष्य का। (घ) नरसिंह का।

8. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

मेरे और भाई साहब के बीच अब केवल एक दरजे का अंतर और रह गया। मेरे मन में एक कुटिल भावना उदय हुई कि कहीं भाई साहब एक साल और फेल हो जाएँ, तो मैं उनके बराबर हो जाऊँ, फिर वह किस आधार पर मेरी फजीहत कर सकेंगे, लेकिन मैंने इस विचार को दिल से बलपूर्वक निकाल डाला। आखिर वह मुझे मेरे हित के विचार से ही तो डाँटते हैं। मुझे इस वक्त अप्रिय लगता है अवश्य, मगर यह शायद उनके उपदेशों का ही असर है कि मैं दनादन पास हो जाता हूँ और इतने अच्छे नंबरों से।

(1) लेखक के मन में कैसी भावना उदय हुई?
(क) प्रेम भावना। (ख) घृणा।
(ख) ईर्ष्या। (घ) कुटिल भावना।

(2) भाई साहब लेखक को क्यों डाँटते हैं?
(क) लेखक से ईर्ष्या करते हैं। (ख) लेखक के हित के विचार से।
(ग) लेखक फेल हो जाये। (घ) लेखक उन्हें अच्छा नहीं लगता।

(3) लेखक क्यों चाहता था कि भाई साहब एक साल और फेल हो जाएँ?
(क) क्योंकि लेखक भाई साहब को पसन्द नहीं करता था। (ख) वह लेखक को डाँटते थे।
(ग) लेखक चाहता था कि वह उनके बराबर हो जाए। (घ) भाई साहब अच्छे इंसान नहीं थे।

(4) लेखक को क्या अप्रिय लगता है?
(क) पढ़ना। (ख) लिखना।
(ग) फेल होना। (घ) भाई साहब का डाँटना।

(5) किसके उपदेशों का असर है कि लेखक दनादन पास हो जाता है इतने अच्छे नंबरों से?
(क) पिता के। (ख) माता के।
(ग) बड़े भाई के। (घ) दोस्तों के।

9. निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प छाँटकर दीजिए–

ऐसी एक घटना का जिक्र सिंधी भाषा के महाकवि शेख अयाज ने अपनी आत्मकथा में किया है। उन्होंने लिखा है–'एक दिन उनके पिता कुएँ से नहाकर लौटे। माँ ने भोजन परोसा। उन्होंने जैसे ही रोटी का कौर तोड़ा। उनकी नजर अपनी बाजू पर पड़ी। वहाँ एक काला च्योंटा रेंग रहा था। वह भोजन छोड़कर उठ खड़े हुए।' माँ ने पूछा, 'क्या बात है? भोजन अच्छा नहीं लगा?' शेख अयाज के पिता बोले, 'नहीं, यह बात नहीं है। मैंने एक घरवाले को बेघर कर दिया है। उस बेघर को कुएँ पर उसके घर छोड़ने जा रहा हूँ।'

(1) महाकवि शेख अयाज़ किस भाषा के कवि थे?

(क) हिंदी। (ख) अंग्रेजी।

(ग) सिंधी। (घ) फारसी।

(2) शेख अयाज़ ने क्या लिखा?

(क) एकांकी। (ख) कहानी।

(ग) उपन्यास। (घ) आत्मकथा।

(3) शेख अयाज़ के पिता कहाँ से लौटे?

(क) तालाब से। (ख) कुएँ से।

(ग) समुद्र से। (घ) नदी से।

(4) काला च्योटा कहाँ रेंग रहा था?

(क) पिता की बाजू पर। (ख) शेख अयाज की बाजू पर।

(ग) माँ की बाजू पर। (घ) जमीन पर।

(5) पिता को अपराध बोध क्यों हुआ?

(क) च्योटा को मारने के कारण। (ख) भोजन छोड़ने के कारण।

(ग) च्योटा को बेघर करने के कारण। (घ) शेख अयाज़ को कष्ट देने के कारण।

❑❑

Answers

Sample Paper 1

खण्ड – (क)

(अपठित गद्यांश)

1. (1) (घ) उपर्युक्त सभी।
(2) (क) गलत नीयत या नीति के कारण।
(3) (ग) अकर्मण्य व आलसी लोग।
(4) (क) नीयत को।
(5) (ग) विषम परिस्थितियों में।

vFkok

(1) (ख) सहायता का।
(2) (ग) अंधविश्वास एवं रुढ़ियों से।
(3) (घ) सबकी भलाई करना।
(4) (ख) सेवा, त्याग और दान का।
(5) (क) बंधुत्व और सहानुभूति।

2. (1) (क) वाणी और कर्म।
(2) (ख) अपने कर्म एवं वाणी द्वारा।
(3) (ख) शब्दशक्ति के प्रतीक प्रमाण हैं।
(4) (क) जो कहते थे वही करते थे।
(5) (घ) विचार और कर्मों द्वारा।

vFkok

(1) (क) परिश्रम से।
(2) (ग) भाग्य और परिश्रम।
(3) (ग) कर्म करो फल की चिंता मत करो।
(4) (ग) आलसी और निकम्मा।
(5) (क) परिश्रम सफलता की कुंजी है।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (1) (घ) क्रिया पदबंध।
(2) (ख) सबकी सहायता करने वाले बालक।
(3) (ग) क्रिया पदबंध।
(4) (ख) विशेषण पदबंध।
(5) (घ) क्रिया पदबंध।

4. (1) (क) जैसे ही वह गया वैसे ही शो का मज़ा किरकिरा हो गया।
(2) (घ) मैंने उस व्यक्ति को देखा पर वह पीड़ा से कराह रहा था।
(3) (क) अश्मित खाना खाकर सो गई।
(4) (क) बच्चे विद्यालय गए क्योंकि वे पढ़ना चाहते थे।
(5) (ख) मोबाइल खो गया और मुझे मिल गया।

5. (1) (ख) जेब कतरा।
(2) (क) तत्पुरुष समास।
(3) (ख) आशा से अतीत।
(4) (क) गृह प्रवेश/तत्पुरुष।
(5) (घ) अंधा है जो कूप।
(6) (ख) द्वंद्व।

6. (1) (ख) उड़ती खबर।
(2) (ग) खरी खरी सुनाना।
(3) (ख) खत्म करना।
(4) (ग) खाक छानने।
(5) (ख) हराना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (1) (क) कबीर।
(2) (घ) एक सुगंधित द्रव्य।
(3) (क) मृग की नाभि को।
(4) (क) मन में।

8. (1) (ग) उपदेश कला में। (2) (क) लेखक पर।
(3) (घ) छोटा भाई। (4) (ख) खूब पढ़ने का।
(5) (ख) अधिक मेहनत से।

9. (1) (ग) ततॉंरा युवती का नाम पूछ रहा है। (2) (ख) गीत गाने का।
(3) (घ) गीत सुनकर। (4) (ग) ततॉंरा उससे गीत गाने को कह रहा था।
(5) (ग) प्रथम दो विकल्प सही हैं।

Sample Paper 2

खण्ड – (क)

(अपठित गद्यांश)

1. (1) (क) मदद करके। (2) (ख) दुख में भी खुशी को तलाशना।
(3) (ग) परेशानियों का सकारात्मक पक्ष देखना। (4) (घ) उक्त तीनों।
(5) (क) जीवन का सकारात्मक दृष्टिकोण।

vFkok

(1) (घ) एकता। (2) (घ) भाषा की।
(3) (ख) देश में आजादी लाए। (4) (ख) सेवा, त्याग और दान का।
(5) (क) बंधुत्व और सहानुभूति।

2. (1) (क) हमारी वेशभूषा और हम। (2) (ख) साधारण व सौम्य वेशवाले।
(3) (क) फैशन में भटककर। (4) (ख) एमर्सन।
(5) (क) भूत + इक।

vFkok

(1) (क) सादगी पसंद। (2) (ख) साधारण लोग।
(3) (घ) उपरोक्त सभी। (4) (घ) सादा जीवन उच्च विचार।
(5) (ग) सादा जीवन, उच्च विचार।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (1) (ख) विशेषण पदबंध। (2) (क) मथुरा का पेड़ा।
(3) (ग) क्रिया पदबंध। (4) (ग) क्रिया–विशेषण पदबंध।
(5) (क) सर्वनाम पदबंध।

4. (1) (क) एक छोटा–सा गाँव था जिसके चारों ओर जंगल था।
(2) (ख) सूर्योदय हुआ और चारों ओर उजाला फैल गया।
(3) (ख) ईमानदार व्यक्ति सफल होंगे।
(4) (ख) राधा ने अपनी ऐसी कथा सुनाई कि सुनयना रो पड़ी।
(5) (ख) सुनैना ने इतना मजेदार चुटकुला सुनाया कि सभी हँसने लगे।

5. (1) (ख) नरभक्षी। (2) (घ) अव्ययीभाव समास।
(3) (ग) वह जो शीघ्र तुष्ट हो जाए अर्थात् शिव। (4) (ख) तीन रंगों का समूह/द्विगु समास।
(5) (घ) हरि और हर। (6) (ख) तत्पुरुष।

6. (1) (ग) आस्तीन का साँप। (2) (ख) कुछ न सूझना।
(3) (क) मृत्यु को प्राप्त होना। (4) (ग) हाथ पसारने।
(5) (क) परेशानी में पड़ना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (1) (क) घमंड एवं अहंकार। (2) (ग) सच्चे ज्ञान।
(3) (क) सुखी। (4) (घ) खाते हैं और सोते हैं।

8. (1) (क) सुलेमान। (2) (ग) आत्मीयता का।
(3) (क) चींटियाँ। (4) (ग) रुक गए।
(5) (ग) सुलेमान सबका रखवाला है।

9. (1) (क) ततॉंरा वामीरो की। (2) (ग) 96 कि.मी.।
(3) (ख) गाँवों में वैवाहिक संबंध होने लगे। (4) (घ) लिटिल अंदमान।
(5) (क) सुखद परिवर्तन।

Sample Paper 3

खण्ड – (क)

(अपठित गद्यांश)

1. (1) (घ) उक्त सभी। (2) (ख) अत्यधिक खनन।
(3) (ग) वनारोपण व चरागाहों का उचित प्रबंध। (4) (ख) झारखंड, मध्यप्रदेश, छत्तीसगढ़, उड़ीसा।
(5) (ङ) भूमि निम्नीकरण की समस्या।

vFkok

(1) (क) तारे व ग्रह। (2) (घ) गुरुत्वाकर्षण शक्ति।
(3) (ग) गुरुत्वाकर्षण शक्ति से वे स्थिर रहते हैं। (4) (ख) सूर्य के।
(5) (घ) आकाश के वैज्ञानिक तथ्य।

2. (1) (क) कर्तव्य की प्रेरणा। (2) (ख) विलक्षण।
(3) (क) जंगल में छाल की रोटियाँ खानी पड़ी। (4) (ग) वे अपना कर्तव्य समझते थे।
(5) (घ) गुणी।

vFkok

(1) (घ) सभी स्थान। (2) (घ) कीमत और मूल्य।
(3) (ग) जब तक कोई कारण न हो। (4) (क) वर्तमान में परीक्षा और भविष्य में शिक्षा का।
(5) (ख) परिवर्तन प्रकृति का शाश्वत नियम।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (1) (क) सर्वनाम पदबंध। (2) (क) माताजी।
(3) (ख) क्रिया–विशेषण पदबंध। (4) (घ) संज्ञा पदबंध।
(5) (ख) क्रिया–विशेषण पदबंध।

4. (1) (ग) एक छोटा सा गाँव था जिसके चारों ओर जंगल था। (2) (घ) मोदी जी ने भाषण दिया और लोगों ने तालियाँ बजाईं।
(3) (ख) मैने अपंग व्यक्ति को काम करते देखा। (4) (ख) मधु ने अपनी ऐसी आपबीती सुनाई कि सुनीता रो पड़ी।
(5) (क) वह दिल्ली गया है या कोलकाता।

5. (1) (ग) प्रत्युत्तर। (2) (घ) अव्ययीभाव समास।
(3) (क) वह जिनके षट् आनन है अर्थात् कार्तिकेय। (4) (ख) एक ही है जो /द्विगु समास।
(5) (ग) नीला है जो उत्पल (कमल)। (6) (घ) द्विगु।

6. (1) (घ) ईद का चाँद। (2) (ग) सिद्धिप्राप्त व्यक्ति।
(3) (क) बढ़ा–चढ़ाकर बात करना। (4) (ख) हंसों के बीच कौवें।
(5) (घ) अपना–सा मुँह लेकर रह जाना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (1) (ख) प्रभु के। (2) (घ) कृष्ण के लिए।
(3) (क) कुसुम्बी साड़ी। (4) (क) रात में यमुनातट पर।

8. (1) (घ) प्रेमचंद। (2) (ग) पाँचवीं–छठवीं।
(3) (घ) दुनिया भ्रमण से। (4) (घ) अम्मा और दादा को।
(5) (ग) अम्मा और दादा को।

9. (1) (ख) पशु पर्व। (2) (क) 1 बार।
(3) (ग) हष्ट–पुष्ट। (4) (ग) झाँक रही थी।
(5) (ख) पेड़ के पीछे।

Sample Paper 4

खण्ड – (क)

(अपठित गद्यांश)

1. (1) (ग) दर्पण। (2) (घ) उक्त सभी।
(3) (घ) केवल साहित्य पढ़ना होगा। (4) (ग) सबका हित।
(5) (क) साहित्य और समाज।

vFkok

(1) (घ) अनादि काल। (2) (घ) उक्त सभी।
(3) (क) पेड़ों की अंधाधुन कटाई। (4) (ग) पेड़, बादल, नदी, पहाड़।
(5) (घ) वरदायिनी प्रकृति।

2. (1) (घ) मुरझाया हुआ। (2) (घ) अनासक्त।
(3) (घ) उक्त सभी। (4) (ख) अवसाद।
(5) (ख) जीवन के उतार–चढ़ाव।

vFkok

(1) (ख) असमानता। (2) (घ) उक्त सभी।
(3) (ख) लड़कियों के प्रति अपनी सोच बदलनी चाहिए। (4) (क) महिलाओं और पुरुषों की समान भागीदारी से।
(5) (घ) लैगिंक असमानता।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (1) (ग) संज्ञा पदबंध। (2) (घ) पानी में डूबते हुए बच्चे को उसने।
(3) (ग) क्रिया पदबंध। (4) (ग) क्रिया–विशेषण पदबंध।
(5) (ii) विशेषण पदबंध।

4. (1) (क) अध्यापक ने प्रश्न पूछा कि तुम कहाँ रहते हो?। (2) (ग) मैंने बहुत कोशिश की, किन्तु असफल रहा।
(3) (क) भीड़–भाड़ के कारण मैं नहीं आया। (4) (ख) यदि तनावहीन रहोगे तो रोगों से मुक्त रहोगे।
(5) (क) अश्मित बाजार गई और उसने पुस्तकें खरीदी।

5. (1) (क) जितेन्द्रिय। (2) (घ) अव्ययीभाव समास।
(3) (ख) वाक् में पटु। (4) (क) मृत्युदंड/तत्पुरुष।
(5) (ग) कंठ तक। (6) (ग) श्वेतांबर।

6. (1) (क) इतिश्री करना। (2) (घ) दुस्साहस करना।
(3) (ग) गायब होना। (4) (ग) राई का पहाड़।
(5) (ग) इज्ज़त मिट्टी में मिलाना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (1) (ग) मधुर। (2) (घ) उक्त सभी।
(3) (ग) मृग की नाभि में। (4) (घ) कण–कण में।

8. (1) (ख) निबंध। (2) (ग) संयम।
(3) (ख) एक बात को बढ़ा–चढ़ाकर चार पन्नों में लिखना। (4) (घ) उक्त सभी।
(5) (क) इससे समय की बर्बादी होती है।

9. (1) (घ) निदा फाजली। (2) (ग) प्रकृति के प्रति।
(3) (क) उसका बेटा उसकी बात माने। (4) (ग) हज़रत मुहम्मद के प्रति।
(5) (ख) बाँग देता है।

Sample Paper 5

खण्ड – (क)

(अपठित गद्यांश)

1. (1) (घ) पैसों का। (2) (ग) आर्थिक स्तर को।
(3) (ख) लोभी। (4) (क) धन के घमंड में।
(5) (ग) चरित्र।

vFkok

(1) (ग) फैशन। (2) (क) स्वयं हम पर।
(3) (ग) एमर्सन का। (4) (ख) सौम्य वेशधारी छात्रों से।
(5) (घ) सौम्यवेशधारी छात्र।

2. (1) (ख) मनुष्य ने। (2) (क) मानवता।
(3) (ग) संस्कारहीन व्यक्ति को। (4) (घ) संस्कार से।
(5) (ग) धर्म।

vFkok

(1) (ग) घर की देखभाल। (2) (ख) उनके विवाह की।
(3) (क) नगरों में। (4) (ग) अशिक्षित।
(5) (ख) लिंग।

खण्ड – (ख)

(व्यावहारिक व्याकरण)

3. (1) (ग) संज्ञा पदबंध। (2) (ख) सर्वनाम पदबंध।
(3) (घ) विशेषण पदबंध। (4) (ग) क्रिया पदबंध।
(ङ) (घ) क्रिया विशेषण पदबंध।

4. (1) (घ) जैसे ही कविता आई काव्या चली गई। (2) (ख) ईमानदार व्यक्ति सफल होंगे।
(3) (क) लोग इस बात पर हँसते होंगे। (4) (ग) जैसे ही रात हुई, तारे निकल आए।
(5) (ख) सोमेश आया था किन्तु बिना बोले चला गया।

5. (1) (ग) अंधकूप। (2) (ख) आत्मविश्वास।
(3) (क) अर्थ के बिना। (4) (ख) ग्रंथ रूपी रत्न।
(5) (घ) अव्ययीभाव समास। (6) (ख) द्वंद्व।

6. (1) (ख) कलम ही। (2) (क) रूठ जाना।
(3) (ग) माँगना। (4) (ख) मित्र बनकर धोखा देने वाला।
(5) (ख) अपनी बातों से नहीं हटना।

खण्ड – (ग)

(पाठ्यपुस्तक)

7. (1) (ख) श्रीकृष्ण।
(2) (ग) साड़ी के कपड़े को बढ़ाकर।
(3) (क) अपनी पीड़ा हरने की।
(4) (घ) नरसिंह का।

8. (1) (घ) कुटिल भावना।
(2) (ख) लेखक के हित के विचार से।
(3) (ग) लेखक चाहता था वह उनके बराबर हो जाए।
(4) (घ) भाई साहब का डाँटना।
(5) (ग) बड़े भाई के।

9. (1) (ग) सिंधी।
(2) (घ) आत्मकथा।
(3) (ख) कुएं से।
(4) (क) पिता की बाजू पर।
(5) (ग) च्योटा को बेघर करने के कारण।

❑❑

Mathematics

Sample Question Paper

Mathematics [Code (041)]

Term – I

Time : 90 Minutes **Max. Marks : 40**

General Instructions :

1. The question Paper contains three parts A, B and C.
2. Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted.
3. Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted.
4. Section C consists of 10 questions based on two Case Studies. Attempt any 8 questions.
5. There is no negative marking.

Section – A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. The ratio of LCM and HCF of the least composite and the least prime numbers is : **1**

(a) 1 : 2 (b) 2 : 1 (c) 1 : 1 (d) 1 : 3

Ans. (b) 2 : 1

Explanation: Least composite number is 4

Least prime number is 2.

Prime factorisation of 4 $= 2^2$

Prime factorisation of 2 $= 2$

$\therefore$ LCM(4, 2) $= 2 \times 2 = 4$

and HCF $= 2$

$$\text{Ratio} = \frac{\text{LCM}}{\text{HCF}} = \frac{4}{2} = \frac{2}{1} = 2 : 1$$

2. The value of k for which the lines $5x + 7y = 3$ and $15x + 21y = k$ coincide is : **1**

(a) 9 (b) 5 (c) 7 (d) 18

Ans. (a) 9

Explanation: The given equation of lines are :

$5x + 7y = 3$ and $15x + 21y = k$

Here, $a_1 = 5$, $b_1 = 7$, $c_1 = -3$

$a_2 = 15$, $b_2 = 21$, $c_2 = -k$

For lines to be coinciding (or infinite solution)

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$$

$$\Rightarrow \quad \frac{5}{15} = \frac{7}{21} = \frac{-3}{-k}$$

$$\Rightarrow \qquad \frac{1}{3} = \frac{3}{k}$$

$$k = 9$$

3. A girl walks 200 m towards East and then 150 m towards North. The distance of the girl from the starting point is : **1**

(a) 350 m (b) 250 m (c) 300 m (d) 225 m

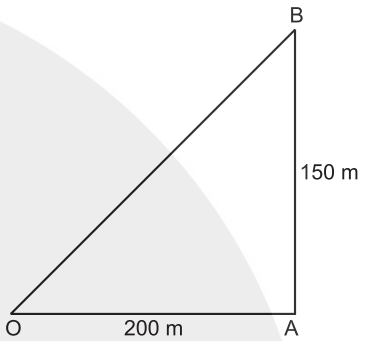
Ans. (b) 250 m

Explanation: Let, the starting position of the girl be O. Distance moved in East *i.e*, OA = 200 m.

Then, distance moved in North *i.e.*, AB = 150 m.

*O*B is the distance between initial and final position.

∴ By Pythagoras theorem, in Δ*AOB*



$$OB^2 = OA^2 + AB^2$$
$$= (200)^2 + (150)^2$$
$$= 40000 + 22500$$
$$= 62500$$

$$\therefore \qquad OB = 250 \text{ m}$$

4. The lengths of the diagonals of a rhombus are 24 cm and 32 cm, then the length of the altitude of the rhombus is : **1**

(a) 12 cm (b) 12.8 cm (c) 19 cm (d) 19.2 cm

Ans. (d) 19.2 cm

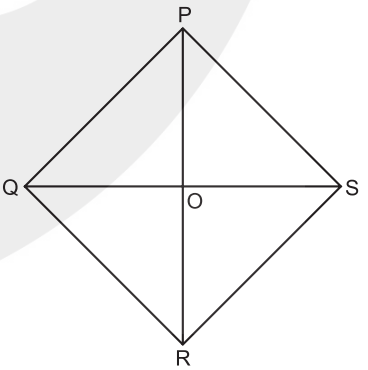
Explanation: Here, diagonals of rhombus are $d_1 = 24$ cm and $d_2 = 32$ cm

$$\therefore \qquad \text{Area of rhombus} = \frac{1}{2}d_1d_2 = \frac{1}{2}\times 24\times 32$$

$$= 384 \text{ cm}^2 \qquad \text{...(i)}$$

Let, the side of the rhombus be '*a*'.

By Pythagoras theorem, in Δ*POQ*,



$$PQ^2 = OP^2 + OQ^2$$

$$a^2 = \left(\frac{24}{2}\right)^2 + \left(\frac{32}{2}\right)^2$$

$$= 12^2 + 16^2$$

$$= 144 + 256 = 400$$

$$a = 20 \text{ cm}$$

Now, Area of rhombus = Base × Altitude

$$384 = 20 \times \text{Altitude} \qquad \text{[Using (i)]}$$

$$\text{Altitude} = \frac{384}{20} = 19.2 \text{ cm}$$

5. Two fair coins are tossed. What is the probability of getting at the most one head? **1**

(a) $\frac{3}{4}$ (b) $\frac{1}{4}$ (c) $\frac{1}{2}$ (d) $\frac{3}{8}$

Ans. (a) $\frac{3}{4}$

Explanation: When two coins are tossed, total possible outcomes are HH, HT, TH, TT *i.e.*, 4. Favourable outcomes (at most one head) are HT, TH, TT, *i.e.*, 3

$\therefore$ P(getting at most one head) = $\frac{3}{4}$

6. $\Delta ABC \sim \Delta PQR$. If AM and PN are altitudes of ΔABC and ΔPQR respectively and $AB^2 : PQ^2 = 4 : 9$, then AM : PN = **1**

(a) 16 : 81 (b) 4 : 9 (c) 3 : 2 (d) 2 : 3

Ans. (d) 2 : 3

Explanation: Since, in similar triangles

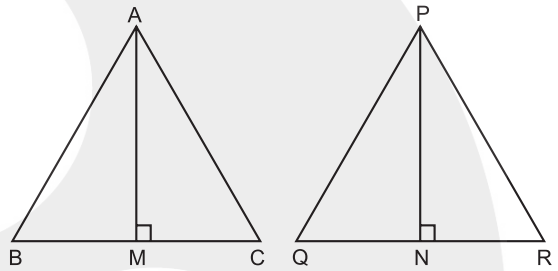
Ratio of altitudes = Ratio of sides for similar triangles

so $$\frac{AM}{PN} = \frac{AB}{PQ}$$

but $$\frac{AB^2}{PQ^2} = \frac{4}{9}$$

then, $$\frac{AB}{PQ} = \frac{2}{3}$$

$$\therefore \quad \frac{AM}{PN} = \frac{2}{3} = 2 : 3$$



7. If $2 \sin^2 \beta - \cos^2 \beta = 2$, then β is : **1**

(a) 0° (b) 90° (c) 45° (d) 30°

Ans. (b) 90°

Explanation: Here, $2 \sin^2 \beta - \cos^2 \beta = 2$

$\Rightarrow \quad 2 \sin^2 \beta - \cos^2 \beta - 2 = 0$

$\Rightarrow \quad 2 \sin^2 \beta - (1 - \sin^2 \beta) - 2 = 0 \qquad (\because \sin^2 \beta + \cos^2 \beta = 1)$

$\Rightarrow \quad 3 \sin^2 \beta - 3 = 0$

$\Rightarrow \quad \sin^2 \beta = 1$

$\Rightarrow \quad \sin \beta = 1$

$\Rightarrow \quad \beta = 90°$

8. Prime factors of the denominator of a rational number with the decimal expansion 44.123 are : **1**

(a) 2, 3 (b) 2, 3, 5 (c) 2, 5 (d) 3, 5

Ans. (c) 2, 5

Explanation: Since, given number is $44.123 = \frac{44}{1000}$

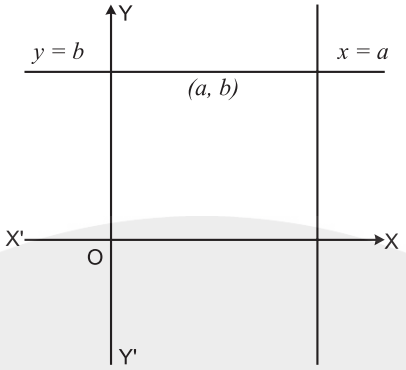
$$= \frac{44}{(2 \times 5)^3}$$

$\therefore$ Prime factors of denominator is 2 and 5.

9. The lines $x = a$ and $y = b$, are : **1**

(a) intersecting (b) parallel (c) overlapping (d) None of these

Ans. (a) intersecting



Explanation: Since, $x = a$ is a line parallel to Y-axis.
And $y = b$ is a line parallel to X-axis.
And they both intersect at point (A, B).

10. The distance of point A(– 5, 6) from the origin is : **1**

(a) 11 units (b) 61 units (c) $\sqrt{11}$ units (d) $\sqrt{61}$ units

Ans. (d) $\sqrt{61}$ units

Explanation: The given point is A(– 5, 6) and coordinates of origin $O(0, 0)$.
$\therefore$ By distance formula,

$$OA = \sqrt{(-5-0)^2 + (6-0)^2}$$

$$= \sqrt{25+36} = \sqrt{61} \text{ units}$$

11. If $a^2 = \frac{23}{25}$, then a is : **1**

(a) rational (b) irrational (c) whole number (d) integer

Ans. (b) irrational

Explanation: As $a^2 = \frac{23}{25}$

$\therefore$ $a = \sqrt{\frac{23}{25}} = \frac{\sqrt{23}}{5}$

which is irrational.

12. If LCM(x, 18) = 36 and HCF (x, 18) = 2 then x is : **1**

(a) 2 (b) 3 (c) 4 (d) 5

Ans. (c) 4

Explanation: Here, LCM(x, 18) = 36
HCF(x, 18) = 2

By formula, LCM × HCF = Product of 2 numbers

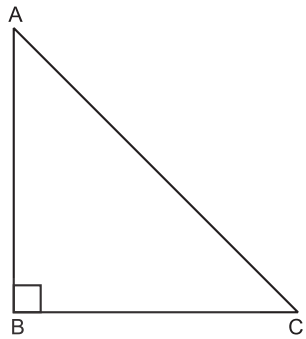
$\Rightarrow$ $36 \times 2 = x \times 18$

$\Rightarrow$ $x = \frac{36 \times 2}{18} = 4$

13. In ΔABC right angled at B, if $\tan A = \sqrt{3}$, then $\cos A \cos C - \sin A \sin C =$ **1**

(a) -1 (b) 0

(c) 1 (d) $\sqrt{3}/2$



Ans. (b) 0

Explanation: Here, ΔABC is right angled at B.

and $\tan A = \sqrt{3}$

$\therefore$ $\angle A = 60°$

Then $\angle C = 180° - (90° + 60°) = 30°$

Now, $\cos A \cos C - \sin A \sin C = \cos 60° \cos 30° - \sin 60° \sin 30°$

$$= \frac{1}{2} \times \frac{\sqrt{3}}{2} - \frac{\sqrt{3}}{2} \times \frac{1}{2}$$

$$= \frac{\sqrt{3}}{4} - \frac{\sqrt{3}}{4} = 0$$

14. If the angles of ΔABC are in ratio 1 : 1 : 2, respectively (the largest angle being angle C), then the value of $\frac{\sec A}{\operatorname{cosec} B} - \frac{\tan A}{\cot B}$ is :

(a) 0 (b) 1/2 (c) 1 (d) $\sqrt{3}/2$

Ans. (a) 0

Explanation: Let, the angles of triangle be x, x and $2x$.

$\therefore$ $x + x + 2x = 180°$ (Angle sum property of triangle)

$\Rightarrow$ $4x = 180°$

$\Rightarrow$ $x = 45°$

Then $\angle A = 45°$, $\angle B = 45°$, $\angle C = 90°$ (Since $\angle C$ is largest)

$$\therefore \quad \frac{\sec A}{\operatorname{cosec} B} - \frac{\tan A}{\cot B} = \frac{\sec 45°}{\operatorname{cosec} 45°} - \frac{\tan 45°}{\cot 45°}$$

$$= \frac{\sqrt{2}}{\sqrt{2}} - \frac{1}{1} = 1 - 1 = 0$$

15. The number of revolution made by a circular wheel of radius 0.7 m in rolling a distance of 176 m is :

(a) 22 (b) 24 (c) 75 (d) 40

Ans. (d) 40

Explanation: Radius of wheel, $r = 0.7$ m

Distance moved by wheel $= 176$ m

Circumference of wheel (distance covered in 1 rev.) $= 2\pi R$

$$= 2 \times \frac{22}{7} \times 0.7$$

$$= 4.4 \text{ m}$$

$$\therefore \quad \text{No. of revolutions} = \frac{\text{Distance moved}}{\text{Circumference of wheel}}$$

$$= \frac{176}{4.4} = 40$$

16. ΔABC is such that AB = 3 cm, BC = 2 cm, CA = 2.5 cm. If $\Delta ABC \sim \Delta DEF$ and EF = 4 cm, then perimeter of ΔDEF is :

(a) 7.5 cm (b) 15 cm (c) 22.5 cm (d) 30 cm

Ans. (b) 15 cm

Explanation: Here, AB = 3 cm, BC = 2 cm, CA = 2.5 cm

Then, perimeter of $\Delta ABC = 3 + 2 + 2.5 = 75$ cm

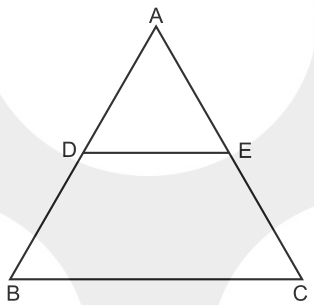
Now, $\Delta ABC \sim \Delta DEF$

$$\therefore \quad \frac{BC}{EF} = \frac{\text{Perimeter } (\Delta ABC)}{\text{Perimeter } (\Delta DEF)}$$

$$\Rightarrow \quad \frac{2}{4} = \frac{7.5}{P(\Delta DEF)}$$

$$\Rightarrow \quad P(\Delta DEF) = 15 \text{ cm}$$

17. In the figure, if DE || BC, AD = 3 cm, BD = 4 cm and BC = 14 cm, then DE equals :



(a) 7 cm (b) 6 cm (c) 4 cm (d) 3 cm

Ans. (b) 6 cm

Explanation: Here, DE || AC,

AD = 3 cm, BD = 4 cm, BC = 14 cm

$\angle ADB = \angle ABC$ (Alternative pair of angles)

$\angle AED = \angle ACB$ (Alternative pair of angles)

$\therefore \quad \angle ADE \sim \angle ABC$ (By AA similarity)

$$\frac{AD}{AB} = \frac{DE}{BC}$$

$$\Rightarrow \quad \frac{3}{3+4} = \frac{DE}{14}$$

$$\Rightarrow \quad \frac{3}{7} = \frac{DE}{14}$$

$$\Rightarrow \quad DE = 6 \text{ cm}$$

18. If $4 \tan \beta = 3$, then $\dfrac{4\sin\beta - 3\cos\beta}{4\sin\beta + 3\cos\beta} =$

(a) 0 (b) $\frac{1}{3}$ (c) $\frac{2}{3}$ (d) $\frac{3}{4}$

Ans. (a) 0

Explanation: Given, $4 \tan \beta = 3$

$$\tan \beta = \frac{3}{4} \quad ...(i)$$

Now, $\dfrac{4\sin\beta - 3\cos\beta}{4\sin\beta + 3\cos\beta}$

On dividing both numerator and denominator by cos β.

$$\frac{4\tan\beta - 3}{4\tan\beta + 3} = \frac{4\times\frac{3}{4} - 3}{4\times\frac{3}{4} + 3} \quad [\text{(from (i)}]$$

$$= \frac{3-3}{3+3} = \frac{0}{6} = 0$$

19. One equation of a pair of dependent linear equation is $-5x + 7y = 2$. The second equation can be :

(a) $10x + 14y + 4 = 0$ (b) $-10x - 14y + 4 = 0$

(c) $-10x + 14y + 4 = 0$ (d) $10x - 14y = -4$

Ans. (d) $10x - 14y = -4$

Explanation: $-2(-5x + 7y = 2)$ gives $10x - 14y = -4$

Now,

$$\frac{a_1}{a_2} = \frac{-5}{10} = \frac{-1}{2}$$

$$\frac{b_1}{b_2} = \frac{7}{-14} = \frac{-1}{2}$$

$$\frac{c_1}{c_2} = \frac{-2}{4} = \frac{-1}{2}$$

So, both the equations are dependent pair of equations.

20. A letter of English alphabets is chosen at random. What is the probability that it is a letter of the word 'MATHEMATICS'?

(a) $\frac{4}{13}$ (b) $\frac{9}{26}$ (c) $\frac{5}{13}$ (d) $\frac{11}{26}$

Ans. (a) $\frac{4}{13}$

Explanation: Total number of possible outcomes = 26

Favourable outcomes are M, A, T, H, E, I, C, S *i.e.*, 8

$\therefore$ P(picking letter from word MATHEMATICS) $= \frac{8}{26} = \frac{4}{13}$

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. If sum of two numbers is 1215 and their HCF is 81, then the possible number of pairs of such numbers are :

(a) 2 (b) 3 (c) 4 (d) 5

Ans. (c) 4

Explanation: Here, HCF of two numbers is 81.

Then possible two number could be $81x$ and $81y$

Now, according to question,

$$81x + 81y = 1215$$

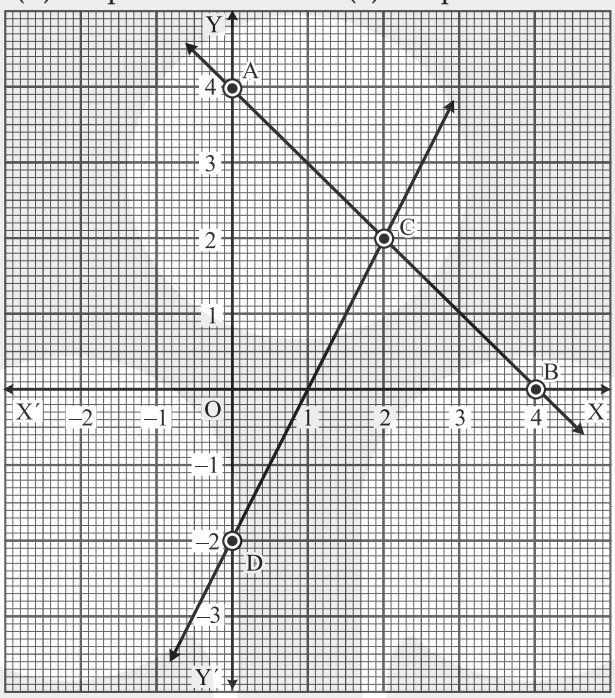
or $$x + y = 15$$

Co-prime pairs formed are (1, 14), (2, 13), (4, 11), (7, 8).

Thus, four pairs can be formed.

22. Given below is the graph representing two linear equations by lines AB and CD respectively. What is the area of the triangle formed by these two lines and the line $x = 0$?

(a) 3 sq. units (b) 4 sq. units (c) 6 sq. units (d) 8 sq. units



Ans. (c) 6 sq. units

Explanation: Area of $\Delta ACD = \frac{1}{2} \times \text{Base} \times \text{Height}$

$$= \frac{1}{2} \times 6 \times 2$$

$$= 6 \text{ sq. units}$$

23. If $\tan\alpha + \cot\alpha = 2$, then $\tan^{20}\alpha + \cot^{20}\alpha =$

(a) 0 (b) 2

(c) 20 (d) 2^{20}

Ans. (b) 2

Explanation: $\tan\alpha + \cot\alpha = 2$ ...(i)

Here, for $\alpha = 45°$, equation (i) is satisfied.

$\therefore$ $\tan^{20}\alpha + \cot^{20}\alpha = (1)^{20} + (1)^{20}$

$$= 1 + 1 = 2$$

24. If $217x + 131y = 913$, $131x + 217y = 827$, then $x + y$ is :

(a) 5 (b) 6 (c) 7 (d) 8

Ans. (a) 5

Explanation: Given equations are

$$217x + 131y = 913 \quad ...(i)$$

$$131x + 217y = 827 \quad ...(ii)$$

Add equations (i) and (ii), we get

$$348x + 348y = 1740$$

or $$x + y = 5$$

25. The LCM of two prime numbers p and q ($p > q$) is 221. Find the value of $3p - q$:

(a) 4 (b) 28 (c) 38 (d) 48

Ans. (c) 38

Explanation: LCM of two prime numbers = Product of two numbers

Now, $221 = 13 \times 17$

$\therefore$ $p = 17,\ q = 13$ $(\because p > q)$

$\therefore$ $3p - q = 3 \times 17 - 13$

$= 51 - 13 = 38$

26. A card is drawn from a well shuffled deck of cards. What is the probability that the card drawn is neither a king nor a queen?

(a) $\frac{11}{13}$ (b) $\frac{12}{13}$ (c) $\frac{11}{26}$ (d) $\frac{11}{52}$

Ans. (a) $\frac{11}{13}$

Explanation: Total number of outcomes = 52

Number of kings + Number of queens = 4 + 4 = 8

$\therefore$ Favourable cases = 52 – 8 = 44

$\therefore$ P(card neither a king nor queen) = $\frac{44}{52} = \frac{11}{13}$

27. Two fair dice are rolled simultaneously. The probability that 5 will come up at least once is :

(a) $\frac{5}{36}$ (b) $\frac{11}{36}$ (c) $\frac{12}{36}$ (d) $\frac{23}{36}$

Ans. (b) $\frac{11}{36}$

Explanation: Total outcomes when two dice are rolled = 36

Favourable outcomes are (1, 5), (2, 5), (3, 5), (4, 5), (5, 1), (5, 2), (5, 3), (5, 4), (5, 5), (5, 6), (6, 5) *i.e.*, 11

$\therefore$ P(will come at least once) = $\frac{11}{36}$

28. If $1 + \sin^2 \alpha = 3 \sin \alpha \cos \alpha$, then values of $\cot \alpha$ are :

(a) – 1, 1 (b) 0, 1 (c) 1, 2 (d) – 1, – 1

Ans. (c) (1, 2)

Explanation: Given, $1 + \sin^2 \alpha = 3 \sin \alpha \cos \alpha$

Put $\sin^2 + \cos^2 \alpha = 1$

Then $\sin^2 \alpha + \cos^2 \alpha + \sin^2 \alpha = 3 \sin \alpha \cos \alpha$

$\Rightarrow \quad 2 \sin^2 \alpha - 3 \sin \alpha \cos \alpha + \cos^2 \alpha = 0$

$\Rightarrow \quad 2 \sin^2 \alpha - 2 \sin \alpha \cos \alpha - \sin \alpha \cos \alpha + \cos^2 \alpha = 0$

$\Rightarrow \quad 2 \sin \alpha(\sin \alpha - \cos \alpha) - \cos \alpha(\sin \alpha - \cos \alpha) = 0$

$\Rightarrow \quad (2 \sin \alpha - \cos \alpha)(\sin \alpha - \cos \alpha) = 0$

$\Rightarrow \quad 2 \sin \alpha - \cos \alpha = 0$ or $\sin \alpha - \cos \alpha = 0$

$\Rightarrow \quad 2 \sin \alpha = \cos \alpha$ or $\sin \alpha = \cos \alpha$

$\Rightarrow \quad \cot \alpha = 2$ or $\cot \alpha = 1$

29. The vertices of a parallelogram in order are A(1, 2), B(4, y), C(x, 6) and D(3, 5). Then (x, y) is :

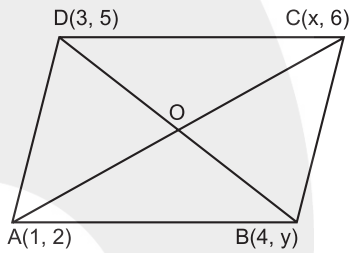
(a) (6, 3) (b) (3, 6) (c) (5, 6) (d) (1, 4)

Ans. (a) (6, 3)

Explanation: Here, vertices of parallelogram are A(1, 2), B(4, y), C(x, 6) and D(3, 5).

Since, diagonal of a parallelogram bisect each other :

$\therefore$ O is the mid-point of AC and BD.



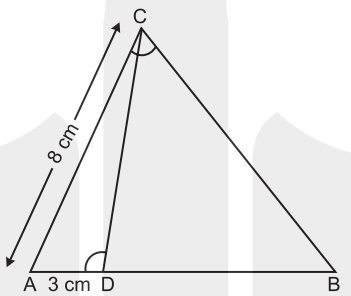
$\therefore \quad \left(\frac{4+3}{2}, \frac{y+5}{2}\right) = \left(\frac{x+1}{2}, \frac{2+6}{2}\right)$

$\therefore \quad \frac{x+1}{2} = \frac{4+3}{2}$ and $\frac{y+5}{2} = \frac{2+6}{2}$

$\Rightarrow \quad x + 1 = 7$ and $y + 5 = 8$

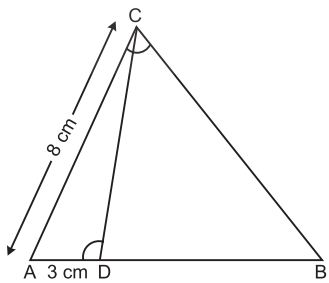
$\Rightarrow \quad x = 6$ and $y = 3$

30. In the given figure, $\angle ACB = \angle CDA$, AC = 8 cm, AD = 3 cm, then BD is :



(a) $\frac{22}{3}$ cm (b) $\frac{26}{3}$ cm (c) $\frac{55}{3}$ cm (d) $\frac{64}{3}$ cm

Ans. (c) $\frac{55}{3}$ cm



Explanation: Here, $\angle ACB = \angle CDA$, AC = 8 cm, AD = 3 cm

In ΔACB and ΔADC,

$\angle ACB = \angle CDA$ (Given)

$\angle A$ is common.

$\therefore \quad \angle ACB \sim \angle ADC$ (By AA similarity)

$\therefore \quad \frac{BC}{CD} = \frac{AB}{AC} = \frac{AC}{AD}$ (Corresponding sides of similar triangles)

$\Rightarrow \quad \frac{AB}{8} = \frac{8}{3}$

$\Rightarrow$ $$AB = \frac{64}{3}$$

So, $$BD = AB - AD$$
$$= \frac{64}{3} - 3 = \frac{55}{3}\text{cm}$$

31. The equation of the perpendicular bisector of line segment joining points A(4, 5) and B(– 2, 3) is :

(a) $2x - y + 7 = 0$ (b) $3x + 2y - 7 = 0$

(c) $3x - y - 7 = 0$ (d) $3x + y - 7 = 0$

Ans. (d) $3x + y - 7 = 0$

Explanation: Any point P(x, y) lies on the perpendicular bisector of AB. Therefore, P will be equidistant from A and B

$\therefore$ By distance formula,

$$\sqrt{(x-4)^2 + (y-5)^2} = \sqrt{(x+2)^2 + (y-3)^2}$$

On squaring both sides, we get

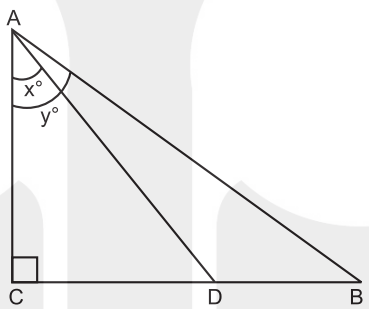
$\Rightarrow$ $$(x - 4)^2 + (y - 5)^2 = (x + 2)^2 + (y - 3)^2$$

$\Rightarrow$ $$x^2 + 16 - 8x + y^2 + 25 - 10y = x^2 + 4 + 4x + y^2 + 9 - 6y$$

$\Rightarrow$ $$-12x - 4y + 28 = 0$$

$\Rightarrow$ $$3x + y - 7 = 0$$

32. In the given figure, D is the mid-point of BC, then the value of $\frac{\cot y^\circ}{\cot x^\circ}$ is :



(a) 2 (b) $\frac{1}{2}$ (c) $\frac{1}{3}$ (d) $\frac{1}{4}$

Ans. (b) $\frac{1}{2}$

Explanation: Here D is the mid-point of BC.

$\therefore$ $$BD = CD$$

or $$BC = \frac{1}{2}CD \quad \text{...(i)}$$

$\therefore$ $$\cot x^\circ = \frac{CD}{AC} \quad \text{...(ii)}$$

$$\cot y^\circ = \frac{BC}{AC} = \frac{\frac{1}{2}CD}{AC} = \frac{CD}{2AC} \quad \text{...(iii)}$$

From equations (ii) and (iii), we get

$$\frac{\cot y^\circ}{\cot x^\circ} = \frac{CD/2AC}{CD/AC} = \frac{1}{2}$$

33. The smallest number by which 1/13 should be multiplied so that its decimal expansion terminates after two decimal places is :

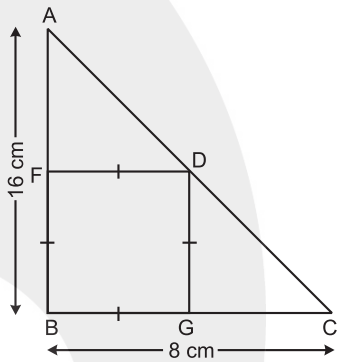
(a) $\frac{13}{100}$ (b) $\frac{13}{10}$ (c) $\frac{10}{13}$ (d) $\frac{100}{13}$

Ans. (a) $\frac{13}{100}$

Explanation: The smallest number here is $\frac{13}{100}$. By this number if $\frac{1}{13}$ is multiplied, the result will terminate after 2 decimal places.

$$\frac{1}{13} \times \frac{13}{100} = 0.01$$

34. Sides AB and BE of a right triangle, right angled at B are of lengths 16 cm and 8 cm respectively. The length of the side of largest square FDGB that can be inscribed in the triangle ABE is :



(a) $\frac{32}{3}$ cm (b) $\frac{16}{3}$ cm

(c) $\frac{8}{3}$ cm (d) $\frac{4}{3}$ cm

Ans. (b) $\frac{16}{3}$ cm

Explanation: Let FDGB is a square of side 'x' cm.

$\therefore$ $\angle AFD = 90^\circ$

and $\angle DGE = 90^\circ$

$\therefore$ $\Delta AFD \sim \Delta DGE$ (By AA similarity criterion)

$\therefore$ $\frac{AF}{BG} = \frac{FD}{GE}$ (Corresponding part of similar triangles)

$\Rightarrow$ $\frac{16-x}{x} = \frac{x}{8-x}$

$\Rightarrow$ $(16-x)(8-x) = x^2$

$\Rightarrow$ $128 - 8x - 16x + x^2 = x^2$

$\Rightarrow$ $24x = 128$

$\therefore$ $x = \frac{16}{3}$ cm

35. Point P divides the line segment joining R(– 1, 3) and S(9, 8) in ratio k : 1. If P lies on the line $x - y + 2 = 0$, then value of k is :

(a) $\frac{2}{3}$ (b) $\frac{1}{2}$ (c) $\frac{1}{3}$ (d) $\frac{1}{4}$

Ans. (a) $\frac{2}{3}$

Explanation: Since P, divides the line segment joining R(– 1, 3) and S(9, 8) in the ratio k : 1.

Coordinates of P$\left(\frac{9k-1}{k+1}, \frac{8k+3}{k+1}\right)$

Now, point P lies on the line $x - y + 2 = 0$

$\therefore \quad \left(\frac{9k-1}{k+1}\right) - \left(\frac{8k+3}{k+1}\right) + 2 = 0$

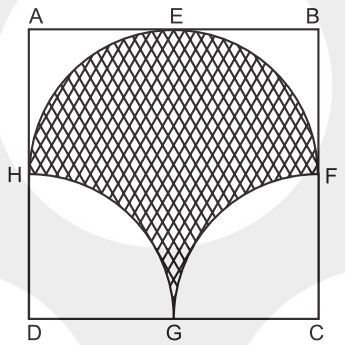
$\Rightarrow \quad 9k - 1 - 8k - 3 + 2k + 2 = 0$

$\Rightarrow \quad 3k - 2 = 0$

$\Rightarrow \quad k = \frac{2}{3}$

Hence, the required ratio is 2 : 3.

36. In the figure given below, ABCD is a square of side 14 cm with E, F, G and H as the mid-points of sides AB, BC, CD and DA respectively. The area of the shaded portion is :



(a) 44 cm^2 (b) 49 cm^2 (c) 98 cm^2 (d) $\frac{49\pi}{2}$ cm^2

Ans. (c) 98 cm^2

Explanation: Side of square *i.e.*, AB = BC = CD = AD = 14 cm

E, F, G, *H* are the mid-points of sides

$\therefore \quad$ DG = GC = 7 cm

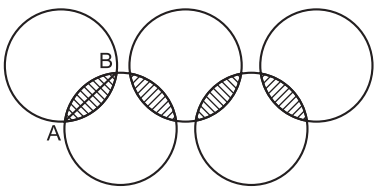
Area of shaded region = (Area of semicircle)

+ (Area of half square – Area of 2 quadrant)

$= \frac{\pi \times (7)^2}{2} + \frac{14 \times 14}{2} - 2 \times \pi \times \frac{7^2}{4}$

$= 14 \times 7 = 98$ cm^2

37. Given below is the picture of the Olympic rings made by taking five congruent circles of radius 1 cm each, intersecting in such a way that the chord formed by joining the point of intersection of two circles is also of length 1 cm. Total area of all the dotted regions assuming the thickness of the rings to be negligible is :



(a) $4\left(\frac{\pi}{12} - \frac{\sqrt{3}}{4}\right)$cm^2 (b) $\left(\frac{\pi}{6} - \frac{\sqrt{3}}{4}\right)$cm^2 (c) $4\left(\frac{\pi}{6} - \frac{\sqrt{3}}{4}\right)$cm^2 (d) $8\left(\frac{\pi}{6} - \frac{\sqrt{3}}{4}\right)$cm^2

Ans. (d) $8\left(\frac{\pi}{6}-\frac{\sqrt{3}}{4}\right)\text{cm}^2$

Explanation: Consider O as the centre of ring A.

Then $OA = OB = AB = 1$ cm

So, ΔOAB is an equilateral triangle

$\therefore$ $\angle AOB = 60°$

$$\text{Area of segment} = \frac{\theta}{360°}\times\pi r^2 - \frac{\sqrt{3}}{4}\times \text{Side}^2$$

$$= \frac{60°}{360°}\times\pi\times 1^2 - \frac{\sqrt{3}}{4}\times 1^2$$

$$= \left(\frac{\pi}{6}-\frac{\sqrt{3}}{4}\right)$$

$$\text{Area of dotted regions} = 8 \times \text{Area of segment}$$

$$= 8\left(\frac{\pi}{6}-\frac{\sqrt{3}}{4}\right)\text{cm}^2$$

38. If 2 and 1/2 are the zeroes of $px^2 + 5x + p$, then :

(a) $p = r = 2$ (b) $p = r = -2$ (c) $p = 2, r = -2$ (d) $p = -2, r = 2$

Ans. (b) $p = r = -2$

Explanation: Given polynomial is

$$q(x) = px^2 + 5x + r$$

Now, 2 and $\frac{1}{2}$ are zeroes of $q(x)$

$\therefore$ $q(2) = p(2)^2 + 5(2) + r = 0$

$\Rightarrow$ $4p + 10 + r = 0$ ...(i)

and $q\left(\frac{1}{2}\right) = p\left(\frac{1}{2}\right)^2 + 5\left(\frac{1}{2}\right) + r = 0$

$\Rightarrow$ $\frac{p}{4}+\frac{5}{4}+r = 0$

$\Rightarrow$ $p + 10 + 4r = 0$ ...(ii)

Multiply equation (ii) by 4 and subtracting it from (i) we get

$$\begin{array}{r} 4p + 10 + r = 0 \\ 4p + 40 + 16r = 0 \\ - \quad - \quad - \\ \hline -30 - 15r = 0 \end{array}$$

$\Rightarrow$ $r = -2$

Put the value of 'r' in equation (i), we get

$4p + 10 + (-2) = 0$

$\Rightarrow$ $4p = -8$

$\Rightarrow$ $p = -2$

39. The circumference of a circle is 100 cm. The side of a square inscribed in the circle is :

(a) $50\sqrt{2}$ cm (b) $\frac{100}{\pi}$ cm

(c) $\frac{50\sqrt{2}}{\pi}$ cm (d) $\frac{100\sqrt{2}}{\pi}$ cm

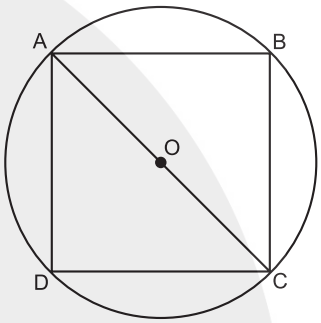
Ans. (c) $\frac{50\sqrt{2}}{\pi}$ cm

Explanation: Let, the radius of circle be 'R' cm.

and Circumference = 100 cm

$\therefore$ $2\pi R = 100$

$$R = \frac{50}{\pi} \text{ cm}$$



Diagonal of square = Diameter of circle

$$AC = \frac{100}{\pi}$$

Now, by Pythagors theorem

$$AD^2 + CD^2 = AC^2$$

$\Rightarrow$ $2AD^2 = \left(\frac{100}{\pi}\right)^2$ [$\because$ AD = CD]

$\Rightarrow$ $AD = \sqrt{\frac{100\times100}{\pi\times\pi\times2}}$

$$= \frac{100}{\pi\sqrt{2}} = \frac{100\times\sqrt{2}}{\sqrt{2}\times\pi\times\sqrt{2}} = \frac{50\sqrt{2}}{\pi} \text{ cm}$$

40. The number of solutions of $3^{x+y} = 243$ and $243^{x-y} = 3$ is :

(a) 0 (b) 1

(c) 2 (d) infinite

Ans. (a) 0

Explanation: Here, given equations are

$$3^{x+y} = 243$$

$\Rightarrow$ $3^{x+y} = 3^5$

So, $x + y = 5$ (On comparing powers) ...(i)

and $243^{x-y} = 3$

$$(3^5)^{x-y} = 1$$

$\Rightarrow$ $5(x - y) = 1$ (On comparing powers)

$\Rightarrow$ $5x - 5y = 1$ ...(ii)

On comparing equations (i) and (ii)

$$\frac{a_1}{a_2} = \frac{1}{5}, \frac{b_1}{b_2} = \frac{1}{-5}, \frac{c_1}{c_2} = \frac{-5}{-1}$$

$\therefore$ $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$

Given, equations have unique solutions.

Section - C

Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : The figure given alongside shows the path of a driver, when she takes a jump from the diving board. Clearly it is a parabola.

Annie was standing on a diving board, 48 feet above the water level. She took a dive into the pool. Het height (in feet) above the water level at any time 't' in seconds is given by the polynomial h(t) such that $h(t) = -16t^2 + 8t + k$.

41. What is the value of k?

(a) 0 (b) – 48 (c) 48 (d) $\frac{48}{-16}$

Ans. (c) 48

Explanation: At t = 0, the height of diver is 48 ft

$\therefore \quad h(0) = -16(0)^2 + 8(0) + k = 48$

$\Rightarrow \quad k = 48$

42. At what time will she touch the water in the pool?

(a) 30 seconds (b) 2 seconds

(c) 1.5 seconds (d) 0.5 seconds

Ans. (b) 2 seconds

Explanation: When annie touch the pool height = 0 feet

i.e. $-16t^2 + 8t + 48 = 0$

$\Rightarrow \quad 2t^2 - t - 6 = 0$

$\Rightarrow \quad 2t^2 - 4t + 3t - 6 = 0$

$\Rightarrow \quad 2t(t-2) + 3(t-2) = 0$

$\Rightarrow \quad (t-2)(2t+3) = 0$

i.e. $t = 2$ or $t = \frac{-3}{2}$

But time cannot be negative.

So, $t = 2$ seconds

43. Rita's height (in feet) above the water level is given by another polynomial $p(t)$ with zeroes – 1 and 2. Then $p(t)$ is given by :

(a) $t^2 + t - 2$ (b) $t^2 + 2t - 1$ (c) $24t^2 - 24t + 48$ (d) $-24t^2 + 24t + 48$

Ans. (d) $-24t^2 + 24t + 48$

Explanation: Here, zeroes are – 1 and 2

$\therefore$ $p(t) = k[t^2 - (-1 + 2)t + (-1) \times 2]$

$= k(t^2 - t - 2)$

when $t = 0$, $h_1 = 48$

$p(0) = k(0 - 0 - 2)$

$48 = -2k$

or $-2k = 48$

or $k = -24$

$\therefore$ Required polynomial is

$-24(t^2 - t - 2) = -24t^2 + 24t + 48$

44. A polynomial $q(t)$ with sum of zeroes are 1 and the product as – 6 is modelling Anu's height in feet above the water at any time t (in seconds). Then $q(t)$ is given by :

(a) $t^2 + t + 6$ (b) $t^2 + t - 6$ (c) $-8t^2 + 8t + 48$ (d) $8t^2 - 8t + 48$

Ans. (c) $-8t^2 + 8t + 48$

Explanation: A polynomial $q(t)$ with zeroes 1 and – 6 is given by

$q(t) = k[t^2 - (\text{Sum of roots})t + \text{Product of roots}]$

$= k[t^2 - (1)t + (-6)]$

$= k(t^2 - t - 6)$

when $t = 0$, then $q(0) = 48$

$\therefore$ $q(0) = k(0^2 - 0 - 6) = 48$

$\Rightarrow$ $48 = -6k$

or $k = -8$

$\therefore$ $q(t) = -8(t^2 - t - 6)$

$= 8t^2 + 8t + 48$

45. The zeroes of the polynomial $r(t) = -12t^2 + (k - 3)t + 48$ are negative of each other. Then k is :

(a) 3 (b) 0 (c) – 1.5 (d) – 3

Ans. (a) 3

Explanation: Here, $r(t) = -12t^2 + (k - 3)t + 48$

Now, roots are negative of each other *i.e.* α and $-\alpha$

$\therefore$ Sum of roots $= \alpha - \alpha = \dfrac{k-3}{12}$

$\Rightarrow$ $k = 3$

Q 46 – Q 50 are based on Case Study–2

Case Study–2 : A hockey field is the playing surface for the game of hockey. Historically, the game was played on natural turf (grass) but nowadays it is predominantly played on an artificial turf.

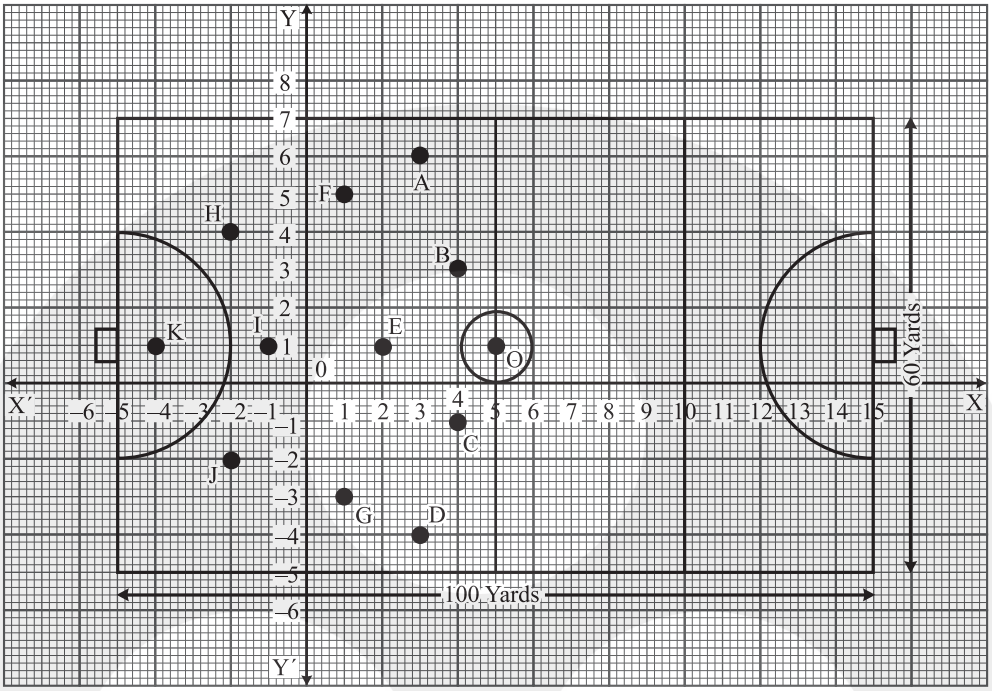
It is rectangular in shape–100 yards by 60 yards. Goals consist of two upright posts placed equidistant from the centre of the backline, joined at the top by a horizontal crossbar. The inner edges of the posts must be 3.66 metres (4 yards) apart, and the lower edge of the crossbar must be 2.14 metres (7 feet) above the ground.

Each team plays with 11 players on the field during the game including the goalie.

Positions you might play include :

- **Forward :** As shown by players A, B, C and D.
- **Midfielders :** As shown by players E, F and .
- **Fullbacks :** As shown by players H, I and J.
- **Goalie :** As shows by player K

Using the picture of a hockey field below, asnwer the questions that follow :



46. The coordinates of the centriod of ΔEHJ are :

(a) $\left(\frac{-2}{3}, 1\right)$ (b) $\left(1, \frac{-2}{3}\right)$ (c) $\left(\frac{2}{3}, 1\right)$ (d) $\left(\frac{-2}{3}, -1\right)$

Ans. (a) $\left(\frac{-2}{3}, 1\right)$

Explanation: Coordinates of E, H, J are E(2, 1), H(– 2, 4) and J(– 2, – 2)

$\therefore$ Coordinates of centroid $= \left(\frac{2-2-2}{3}, \frac{1+4-2}{3}\right)$

$= \left(\frac{-2}{3}, 1\right)$

47. If a player P needs to be at equal distance from A and G, such that A, P and G are in straight line, then position of P will be given by :

(a) $\left(\frac{-3}{3}, 2\right)$ (b) $\left(2, \frac{-3}{2}\right)$ (c) $\left(2, \frac{3}{2}\right)$ (d) (– 2, – 3)

Ans. (c) $\left(2, \frac{3}{2}\right)$

Explanation: If player P is at equal distance of from A and G in straight line. Then P, is the mid-point of AG.

Coordinates of A(3, 6) and G(1, – 3).

$\therefore$ Coordinates of P $= \left(\frac{3+1}{2}, \frac{6-3}{2}\right)$

$= \left(2, \frac{3}{2}\right)$

48. The point on X-axis equidistant from I and E is :

(a) $\left(\frac{1}{2}, 0\right)$ (b) $\left(0, \frac{-1}{2}\right)$ (c) $\left(\frac{-1}{2}, 0\right)$ (d) $\left(0, \frac{1}{2}\right)$

Ans. (a) $\left(\frac{1}{2}, 0\right)$

Explanation: Let the point on X-axis equidistant from I(– 1, 1) and E(2, 1) be $(x, 0)$.

$\therefore$ By distance formula,

$$\sqrt{(x+1)^2+(0-1)^2} = \sqrt{(x-2)^2+(0-1)^2}$$

$\Rightarrow$ $x^2 + 1 + 2x + 1 = x^2 + 4 - 4x + 1$

$\Rightarrow$ $6x = 3$

$\Rightarrow$ $x = \frac{1}{2}$

$\therefore$ Required point $= \left(\frac{1}{2}, 0\right)$

49. What are the coordinates of the position of a player Q such that his distance from K is twice his distance from E and K, Q and E are collinear?

(a) (1, 0) (b) (0, 1) (c) (– 2, 1) (d) (– 1, 0)

Ans. (b) (0, 1)

Explanation: Let, the coordinates of the position of player Q be (x, y)

Now, KQ = 2KE (According to question)

or $\frac{KQ}{KE} = 2 : 1$

Coordinates of K(– 4, 1) and E(2, 1).

$\therefore$ By section formula,

$$Q(x, y) = \left(\frac{2\times2+1\times(-4)}{2+1}, \frac{2\times1+1\times1}{2+1}\right)$$

$$= \left(\frac{4-4}{3}, \frac{2+1}{3}\right) = (0,1)$$

50. The point on y-axis equidistant from B and C is :

(a) (– 1, 0) (b) (0, – 1) (c) (1, 0) (d) (0, 1)

Ans. (d) (0, 1)

Explanation: Let, the point on Y-axis equidistant from B(4, 3), C(4, – 1) be $(0, y)$

$\therefore$ By distance formula

$$\sqrt{(4-0)^2+(3-y)^2} = \sqrt{(4-0)^2+(-1-y)^2}$$

On squaring both sides

$\Rightarrow$ $16 + 9 + y^2 - 6y = 16 + 1 + y^2 - 2y$

$\Rightarrow$ $-8y = -8$

$\Rightarrow$ $y = 1$

$\therefore$ Required point is (0, 1). ❑❑

Sample Paper 1

Mathematics

Section - A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. What is the HCF of 16 and 32?

(a) 4 (b) 12 (c) 16 (d) 20

2. If the probability of winning a game is 0.3, then what is the probability of losing it?

(a) 0.5 (b) 0.3 (c) 0.7 (d) Not defined

3. A sector is cut from a circle of 21 cm diameter. If the angle is 150° then what will be its area?

$\left(\text{use } \pi = \frac{22}{7}\right)$

(a) 144.38 cm^2 (b) 150.21 cm^2 (c) 121.82 cm^2 (d) 151.27 cm^2

4. Give the polynomial of degree 2 with sum and product of its zeroes as $-\frac{1}{2}$ and -3 respectively :

(a) $k(x^2 - x + 6)$ (b) $k(2x^2 + x - 6)$ (c) $k(x^2 + x - 3)$ (d) $k(x^2 - 2x + 3)$

5. Graphically, how does the pair of equations

$$6x - 3y + 10 = 0$$
$$2x - y + 9 = 0$$

represents two lines :

(a) Intersecting lines (b) Coincident lines

(c) Parallel lines (d) Can't decide

6. What should be the factors of denominator, so that a rational number can be expressed, as terminating decimal?

(a) 2 or 5 (b) only 2 (c) only 5 (d) 2 and 5

7. If the circumference of a circle is equal to the perimeter of a square, then what will be the ratio of their areas?

(a) 14 : 11 (b) 21 : 1 (c) 11 : 4 (d) 5 : 7

8. Has the rational number a terminating or $\frac{441}{2^2 5^7 7^2}$ non-terminating decimal representation?

(a) Terminating (b) Non-terminating (c) Neither (d) Not

9. Find the coefficient of x^0 in $x^2 + 3x + 2 = 0$.

(a) 3 (b) – 3 (c) 2 (d) – 2

10. Find the HCF of the smallest composite number and smallest prime number.

(a) 2 (b) 1 (c) 3 (d) 4

11. If HCF (336, 54) = 6, find LCM (336, 54).

(a) 336 (b) 54 (c) 3024 (d) 6

12. Find the distance of the point (– 6, 8) from the origin.

(a) 12 (b) 86 (c) 8 (d) 10

13. What are the roots of $x + \frac{1}{x} = 2$?

(a) 14 : 11 (b) 1 : 1 (c) 11 : 4 (d) 5 : 7

14. For what value of c the pair of equation $cx - y = 2$ and $6x - 2y = 4$ will have infinitely many solution?

(a) 5 (b) 6 (c) 3 (d) None of these

15. The radii of two concentric circles are 4 cm and 5 cm. Then find the difference in the area of these two circles.

(a) 9 π (b) 16 π (c) 25 π (d) 32 π

16. If $x + y = 2500$ and $x - y = 2500$ then the value of x is :

(a) 2500 (b) 5000 (c) 3000 (d) 4000

17. Which trigonometric ratio relates the adjacent side and opposite side of the right-angled triangle?

(a) sin θ (b) cos θ (c) tan θ (d) sec θ

18. If $x = \frac{8 \pm \sqrt{(-8)^2 - 4 \times 3 \times 2}}{2 \times 3}$ then the required polynomial is :

(a) $3x^2 - 8x + 2 = 0$ (b) $2x^2 - 8x - 2 = 0$ (c) $3x^2 + 8x - 2 = 0$ (d) $3x^2 + 8x + 2 = 0$

19. The distance between the points $A\left(-\frac{8}{5}, 2\right)$ and $B\left(\frac{2}{5}, 2\right)$ is :

(a) 5 units (b) -5 units
(c) 2 units (d) 7 units

20. The values of x and y in $2x + 3y = 2$ and $x - 2y = 8$ are:

(a) – 4, 2 (b) – 4, – 2 (c) 4, – 2 (d) 4, 2

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. If the value of θ is 45°, then what is the value of sec 45°?

(a) 0 (b) $\frac{2}{\sqrt{3}}$ (c) $\sqrt{2}$ (d) 1

22. The distance of the point A(12, 5) from the origin is :

(a) 17 units (b) 7 units (c) 13 units (d) 15 units

23. Find the coefficient of x^0 in $x^2 + 3x + 2 = 0$.

(a) 3 (b) – 3 (c) 2 (d) – 2

24. Which of the following statement is false?

(a) All isosceles triangles are similar. (b) All square are similar.
(c) All circles are similar. (d) None of these

25 Which among the following ratios, is not opposite of each other?

(a) sin θ and cos θ (b) cos θ and sec θ
(c) tan θ and cot θ (d) cosec θ and sin θ

26. L.C.M. of two co-prime numbers is always :

(a) product of numbers (b) sum of numbers
(c) difference of numbers (d) None of these

27. If the distance of a point from the base of a building is 15 m and angle of elevation to its top from that point is 60°. Then, what is the height of the building?

(a) 25 m (b) 26 m (c) 31 m (d) 18 m

28. The values of x and y in $3x + 2y = 4$ and $2x - 3y = 7$ are:

(a) 2, – 1 (b) 2, 1 (c) – 2, – 1 (d) – 2, 1

29. A ladder 10 m long reaches a window 8 m above the ground. The distance of the foot of the ladder from the base of the wall is ..... m.

(a) 8 (b) 2 (c) 6 (d) 4

30. Complete this identity : $\sec^2 \theta - 1 =$ .....

(a) $\cos^2 \theta$ (b) $\sin^2 \theta$ (c) $\tan^2 \theta$ (d) $\text{cosce}^2 \theta$

31. A dice is rolled twice. What is the probability that 5 will not come up either time?

(a) $\frac{23}{36}$ (b) $\frac{25}{36}$ (c) $\frac{13}{36}$ (d) $\frac{11}{36}$

32. In which condition will the polynomial $ax^2 + bx + c = 0$ be a quadratic equation?

(a) $a \neq 0$ (b) $a = b$ (c) $a = c$ (d) $a = 0$

33. If the end points of a line segment AB are A(6, 8) and (– 2, – 2) then its mid-point is :

(a) (2, 3) (b) (3, 2) (c) (4, 6) (d)None of these

34. If sec A + tan A = x; then tan A :

(a) $\frac{2}{x}$ (b) $\frac{1}{2x}$ (c) $\frac{x^2 - 1}{2x}$ (d) $\frac{2x}{x^2 - 1}$

35. The values of x and y in $x - y + 1 = 0$ and $3x + 2y - 12 = 0$ are:

(a) 2, – 3 (b) – 2, 3 (c) – 2, – 3 (d) 2, 3

36. Two different dice are tossed together. What is the probability of getting a sum 10 of the numbers on the two dice?

(a) $\frac{1}{6}$ (b) $\frac{5}{6}$ (c) $\frac{1}{12}$ (d) $\frac{2}{3}$

37. If $x = 2 \sin^2 \theta$ and $y = 2 \cos^2 \theta + 1$ then the value of $x + y$ is :

(a) 3 (b) 4 (c) 5 (d) 6

38. For which value of p will the equation $(p^2 - 1)x^2 + px + q = 0$ not be a quadratic equation?

(a) $p = 1$ (b) $p = -1$ (c) Both (i) and (ii) (d) $p = 0$

39. What is the probability that a non-leap year has 53 Sundays?

(a) $\frac{6}{7}$ (b) $\frac{1}{7}$ (c) $\frac{2}{7}$ (d) $\frac{3}{7}$

40. If the difference between the circumference and the radius of a circle is 37 cm, then using $\pi = \frac{22}{7}$, the radius of the circle (in cm) is :

(a) 154 (b) 44 (c) 14 (d) 7

Section - C

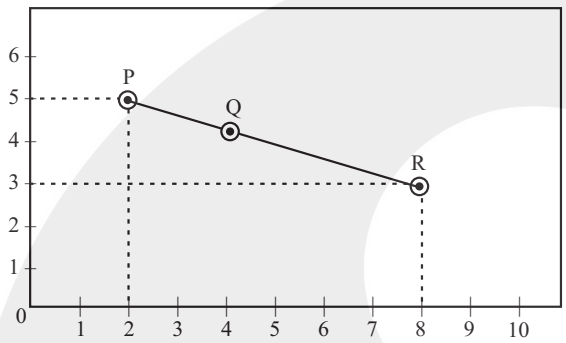
Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : Some friends of class X goes to picnic at waterpark. There were slides *i.e.* water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.



Consider 'O' as origin, answer the below questions :

41. Find the coordinates of the point 'Q' which divides the line segment PR in the ratio 1 : 2 internally :

(a) $\left(4, \frac{13}{3}\right)$ (b) $\left(\frac{13}{3}, \frac{11}{3}\right)$ (c) $\left(\frac{10}{3}, \frac{13}{3}\right)$ (d) $\left(\frac{13}{3}, 4\right)$

42. Find the distance between the point's P and R :

(a) $2\sqrt{10}$ (b) $\sqrt{36}$ (c) $\sqrt{38}$ (d) $\sqrt{20}$

43. Find the coordinates of point on X-axis which is at equal distance from P and Q :

(a) $\left(\frac{11}{9}, 0\right)$ (b) (3, 0) (c) $\left(\frac{3}{4}, 0\right)$ (d) (1, 3)

44. Find the length of P and Q.

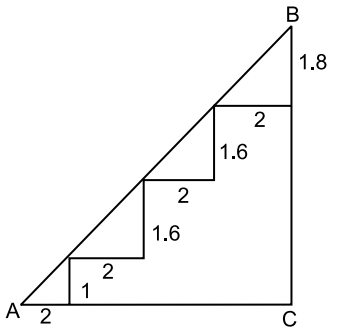
(a) $\sqrt{3}$ (b) $\sqrt{4}$ (c) $\sqrt{5}$ (d) $\sqrt{6}$

45. If we shift the origin 'O' by 2 units towards right and 1 unit towards North. Then find the coordinate of point R :

(a) (10, 4) (b) (6, 2) (c) (6, 3) (d) (8, 3)

Q 46 – Q 50 are based on Case Study–2

Case Study–2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that there is a defect in staircase construction, like few stairs are big, few are small, all steps are not of same size. Here is the staircase as shown in fig., connecting points A and B. Measurements of each steps are marked in the figure.



Based on the above information answer the following questions.

46. By using which property/theorem we can determine the straight line distance between end points of the stair case?

(a) Thales theorem (b) Similarity property

(c) Pythagoras theorem (d) Area of triangle

47. Find the length of the straight line A and B.

(a) 10 units (b) 12 units (c) 6 units (d) 8 units

48. Which of the following is incorrect with respect to Pythagoras theorem?

(a) It is applicable to right angled triangle.

(b) It is also known as Baudhayan theorem.

(c) The square of hypotenuse is equal to the sum of square of other two sides.

(d) It is applicable to all type of triangle.

49. Keeping the distance of points AC, AB and BC same, what can be the possible height of each stair case?

(a) 1.5 units (b) 1.4 units (c) 1.3 units (d) 1.6 units

50. If he wants length and breadth of each stair to be same *i.e.*, 2 units. Then what is the new distance between points A and B?

(a) $8\sqrt{2}$ units (b) 8 units (c) 9 units (d) 10 units

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Sample Paper 2

Mathematics

Section - A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. Find the probability of getting an even number when a die is thrown once.

(a) $\frac{1}{2}$ (b) $\frac{1}{4}$ (c) $\frac{5}{6}$ (d) $\frac{1}{6}$

2. If $\cos\theta = \frac{3}{4}$, find then the value of $9\tan^2\theta + 9$.

(a) 12 (b) 15 (c) 16 (d) 17

3. Find the value of k for which the system of simultaneous equations $x + 2y = 5$; $3x + ky + 15 = 0$ has no solution.

(a) – 6 (b) 6 (c) 0 (d) 3

4. If $\tan^2 45° - \cos^2 30° = x.\sin 45° \cos 45°$ then find the value of x.

(a) $\frac{1}{2}$ (b) $\frac{1}{6}$ (c) $\frac{1}{4}$ (d) $\frac{5}{6}$

5. The circumference of a circle is 22 cm. Find the area of the semicircle (in cm^2).

(a) $\frac{11}{4} cm^2$ (b) $\frac{77}{4} cm^2$ (c) $\frac{22}{7} cm^2$ (d) $\frac{17}{3} cm^2$

6. Find the value of $9\,\text{cosec}^2 A - 9\cot^2 A$.

(a) 1 (b) 0 (c) – 1 (d) 9

7. How many polynomials can be formed having zeroes as – 2 and 5 ?

(a) 1 (b) 2 (c) 3 (d) ∞

8. If the radius of a circle is 9.8 cm, then what is the circumference of the circle.

(a) 66 cm (b) 62.6 cm (c) 61.6 cm (d) 72.8 cm

9. What are the zeroes of the polynomial $x^2 - 9$?

(a) – 3, 3 (b) – 2, 2 (c) – 4, 4 (d) $I\sqrt{3}$

10. Find the probability of getting a prime number when a die is thrown once.

(a) $\frac{1}{2}$ (b) $\frac{1}{4}$ (c) $\frac{5}{6}$ (d) $\frac{1}{6}$

11. Find the value of $\frac{1-\tan^2 45°}{1+\tan^2 45°}$.

(a) – 1 (b) 0 (c) 1 (d) 2

12. Find the area of a sector of angle θ° of a circle with radius R.

(a) $\frac{\theta}{180°} \times 2\pi R$ (b) $\frac{\theta}{360°} \times \pi R$ (c) $\frac{\theta}{360°} \times \pi R^2$ (d) None of these

13. If α and β are the zeroes of $x^2 + 5x + 8$, then find the value of $\alpha + \beta$.

(a) 8 (b) $\frac{8}{5}$ (c) 5 (d) – 5

14. What is the perimeter of a semicircle?

(a) πr (b) $r(\pi + 2)$ (c) $(2\pi r + 1)r$ (d) $2\pi r$

15. A bag contains 3 red and 2 blue marbles. If a marble is drawn at random, then the probability of drawing a blue marble.

(a) $\frac{2}{5}$ (b) $\frac{3}{5}$ (c) $\frac{4}{5}$ (d) 1

16. Atul, Ravi and Tarun go for a morning walk. They step off together and their steps measure 40 cm, 42 cm and 45 cm, respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?

(a) 2520 (b) 3200 (c) 5500 (d) 1250

17. For what value of k, – 4 is a zero of the polynomial $x^2 - x - (2k + 2)$?

(a) 10 (b) 12 (c) 9 (d) 8

18. If $x = p \sec \theta$ and $y = q \tan \theta$, then $x^2y^2 - y^2p^2$ is :

(a) $p^2 q^2$ (b) $p^2 - q^2$ (c) $\frac{p^2}{q^2}$ (d) pq

19. If two coins are tossed simultaneously. What is the probability of getting at most one head ?

(a) $\frac{1}{2}$ (b) $\frac{3}{4}$ (c) $\frac{1}{3}$ (d) $\frac{1}{4}$

20. A single letter is selected at random from the word 'PROBABILITY'. What is the probability that the selected letter is a vowel?

(a) $\frac{3}{11}$ (b) $\frac{5}{11}$ (c) $\frac{4}{11}$ (d) $\frac{2}{11}$

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. Write the quadratic polynomial, whose zeroes and 1 and – 2.

(a) $x^2 + x + 2$ (b) $x^2 + x - 2$ (c) $x^2 - x - 2$ (d) $x^2 + 2x - 1$

22. There is a circular path around a sports field, Priya takes 18 min. to drive one round of the field, while Ravish takes 12 min. for the same. Suppose they both start at the same point and at the same time and go in the same direction. After how many minutes will they meet again at the starting point?

(a) 12 (b) 24 (c) 36 (d) 38

23. What is the value of $\sin 60° \cos 30° + \sin 30° \cos 60°$?

(a) 2 (b) 1 (c) – 1 (d) 0

24. In Δ ABC and Δ PQR , $\frac{AB}{AC} = \frac{PQ}{PR}$, and $\angle$ BAC = $\angle$ QPR, then

(a) $\Delta ABC \sim \Delta QPR$ (b) $\Delta BAC \sim \Delta RQP$

(c) $\Delta ABC \sim \Delta PQR$ (d) None of these

25. The point (0,4) lies on axis.

(a) x (b) y (c) Origin (d) Equadrant

26. A test consists of 'Thrue' or 'False' questions. One mark is awarded for every correct asnwer while $\frac{1}{4}$ mark is deducted for every wron answer. A student knew answers to some of the questions. Rest of the questions be attempted by guessing. He answer 120 questions and got 90 marks.

Type of Question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly ?

(a) 24 (b) 96 (c) 70 (d) 100

27. Two buildings I and II are of heights 19 m and 40 m respectively 20 m apart. The distance between their tops is :

(a) $\sqrt{1961}$ m (b) $\sqrt{802}$ m (c) 29 m (d) 41 m

28. If A = $2n + 13$, B = $n + 7$, where n is a natural number, then HCF of A and B.

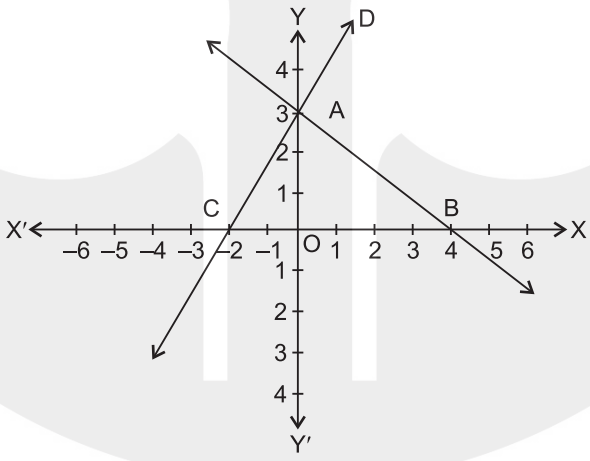
(a) 1 (b) 2 (c) 3 (d) 4

29. In a ΔABC, $BD \perp AC$ such that $BD^2 = DC.AD$, then :

(a) $\angle A = 90°$ (b) $\angle B = 90°$

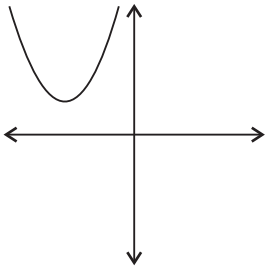
(c) $\angle C = 90°$ (d) ABC is not a right angled triangle

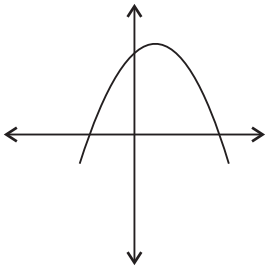
30. Given below is the graph representing two lines equtions by lines AB and CD respectivly. What is the area of the triangle formed by these two lines are the line $y = 0$?

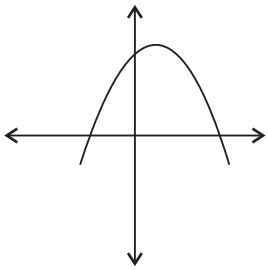


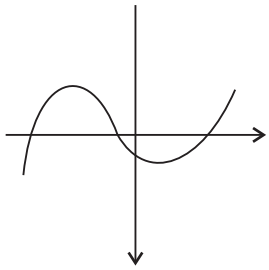
(a) 7.5 Sq. units (b) 9 Sq. units (c) 8 Sq. units (d) 6 Sq. units

31. Which of the following is not the graph of quadratic polynomial ?

(a)


(b)


(c) 

(d) 

32. In the given figure, the side PQ of a right triangle ΔPQR where OP = 6 cm, OR = 8 cm and QR = 26 cm, is :

(a) 21 cm (b) 23 cm (c) 24 cm (d) 36 cm

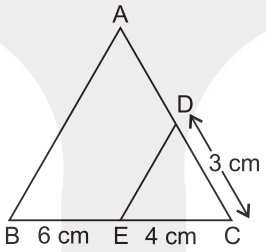
33. Two vertives of a triangle are (3, – 5) and (– 7, 4). If its centroid is (2, – 1), then the third vertex is :

(a) (10, 2) (b) (– 10, 2) (c) (10, – 2) (d) (– 10, – 2)

34. AOBC is a rectangle whose three vertices are (A (0, 3), 0(0, 0) and B(5, 0). The length of its dlagonal is :

(a) 5 (b) 3 (c) $\sqrt{34}$ (d) 4

35. In ΔABC, DE || AB. If CD = 3 cm, EC = 4 cm BE = 6 cm, then AD is equal to :



(a) 7.5 cm (b) 3 cm (c) 4.5 cm (d) 6 cm

36. Hypotenuise of a right triangle is 25 cm and out of the remaining two sides, one is longer than the other by 5 cm. Then the length of the longer side is :

(a) 20 cm (b) 15 cm (c) 12.5 cm (d) 10 cm

37. $5 \tan^2 A - 5 \sec^2 A + 1$ is equal to :

(a) 6 (b) – 5 (c) 1 (d) – 4

38. $\frac{1-\cos A}{\sin A}$ is equal to :

(a) $\frac{\sin A}{1-\cos A}$ (b) $\frac{\sin A}{1+\cos A}$ (c) $\frac{\cos A}{1-\cos A}$ (d) $\frac{\cos A}{1+\cos A}$

39. If the probability of an event is P, the probability of its complementary event will be :

(a) P – 1 (b) P (c) 1 – P (d) $\frac{1-1}{P}$

40. The mid-points of a line segment joining two points A(2, 4) and B(– 2, – 4).

(a) (– 2, 4) (b) (2, – 4) (c) (0, 0) (d) (– 2, – 4)

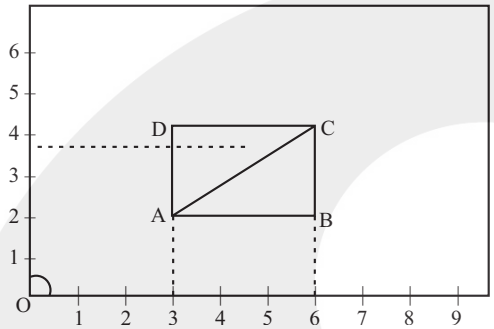
Section - C

Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : Secondary school of Paschim Vihar took their 10th class students on an agriculture trip. There they learn about the different phases of agriculture *i.e.,* preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to prepare the soil on this area of plot.



Consider O as origin, answer the following questions :

Answer the following questions :

41. What are the co-ordinates of point C ?

(a) (0, 0) (b) (3, 4) (c) (4, 6) (d) (6, 4)

42. According to the given figure in which quadrant the barren land lies ?

(a) 1st quadrant (b) 2nd quadrant (c) 3rd quadrant (d) 4th quadrant

43. Find the length of the side AC.

(a) 4 units (b) $\sqrt{13}$ units (c) 3 units (d) $\sqrt{11}$

44. Find the co-ordinates of the mid-point of the side AC.

(a) $\left(3, \frac{9}{2}\right)$ (b) (4, 2) (c) $\left(\frac{9}{2}, 3\right)$ (d) (0, 0)

45. Determine the type of triangle formed by the points A, B and C.

(a) Equilateral triangle (b) Isosceles triangle

(c) Right angle triangle (d) None of these

Q 46 – Q 50 are based on Case Study–2

Case Study–2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows :

46. Find the HCF between two green lights :

(a) 18 (b) 20 (c) 16 (d) 22

47. Find the LCM between two green lights :

(a) 720 (b) 730 (c) 710 (d) 740

48. Factor tree is used for determining the :

(a) HCF (b) LCM

(c) prime factor (d) None of these

49. Identify the correct option :

(a) HCF $(a, b) \times$ LCM $(a, b) = \frac{a}{b}$ (b) $\frac{\text{HCF}(a,b)}{\text{LCM}(a,\ b)} = \frac{a}{b}$

(c) HCF $(a, b) \times$ LCM $(a, b) = a - b$ (d) HCF$(a, b) \times$ LCM $(a, b) = ab$

50. A number which do not have any factor other than 1, is :

(a) coprime number (b) prime number

(c) coprime or prime number (d) None of the above

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Sample Paper 3

Mathematics

Section - A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. What is the probability of an impossible event occuring?

(a) 0 (b) – 1 (c) 1 (d) ∞

2. What is the perimeter of a semi-circle with radius r?

(a) $2\pi r$ (b) $2\pi r + 1$ (c) $\pi r + 2r$ (d) $2\pi r + 2r$

3. If area of a circle is equal to its circumference, then the diameter of the circle is :

(a) 4 units (b) 5 units (c) 2 units (d) $\frac{\pi r}{2}$ units

4. For a circle having radius r, what is the area of quadrant?

(a) $\frac{\pi r}{2}$ (b) $\pi r^2 + 2r$ (c) $\frac{1}{4}\pi r^2$ (d) $\frac{1}{2}\pi r^2$

5. Two positive integers expressed as $p = ab^2$ and $q = a^2b$, where a and b are prime numbers. Then the LCM of p and q is :

(a) b^2 (b) ab (c) a^3b^3 (d) a^2b^2

6. If $f(x) = x^2 - px + q$ is a quadratic polynomial then, the sum of zeroes of the quadratic polynomial is :

(a) $-p$ (b) p (c) q (d) $-q$

7. The decimal expansion of the rational number $\frac{43}{2^4 5^3}$ will terminate after how many places of decimal ?

(a) 4 (b) 3 (c) 2 (d) 6

8. Write the zeroes of the polynomial $f(x) = x^2 - x - 6$.

(a) – 2, 3 (b) 2, 3 (c) 2, 3 (d) – 2, – 3

9. Name the highest power of a variable in a polynomial.

(a) Power (b) Degree (c) Zero (d) None of these

10. If area of quadrant of a circle is 154 cm^2, then find its radius. $\left(\text{use } \pi = \frac{22}{7}\right)$

(a) 7 (b) 49 (c) 14 (d) 28

11. Two friends were born in the year 2000. What is the probability that they have the same birthday?

(a) $\frac{1}{366}$ (b) $\frac{2}{365}$ (c) $\frac{1}{365}$ (d) None of these

12. What is the probability of getting a head in a single throw of a coin?

(a) 1 (b) $\frac{1}{2}$ (c) 0 (d) None of these

13. What are the values of x and y for the pair of linear equations $2x + 3y = 2$ and $x - 2y = 8$?

(a) 4,2 (b) – 4, 2 (c) 4, – 2 (d) – 4, – 2

14. If the quadratic equation $x^2 - 3x + k = 0$ has equal roots, then what is the value of k?

(a) $\frac{-4}{9}$ (b) $\frac{-9}{4}$ (c) $\frac{9}{4}$ (d) $\frac{-4}{9}$

15. If $x = 3$ is one root of the equation $x^2 - 2kx - 6 = 0$, then what is the value of k?

(a) 1 (b) $-\frac{1}{2}$ (c) 2 (d) $\frac{1}{2}$

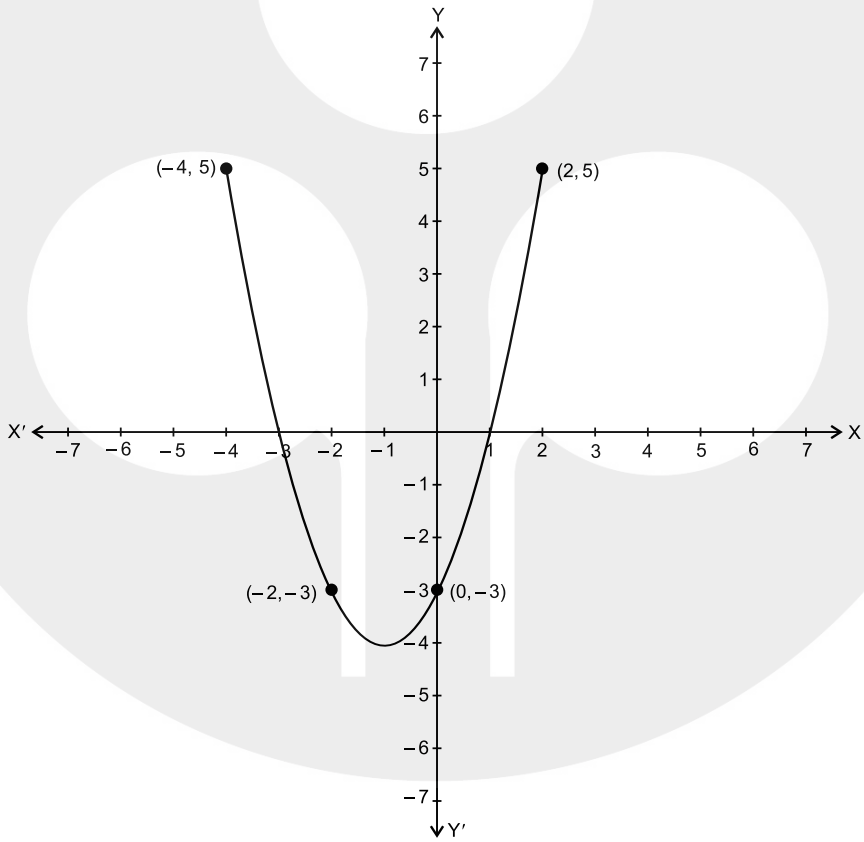
16. If P is a prime number, then find the LCM of P^2 and P^3.

(a) P^3 (b) P (c) P^2 (d) P^4

17. Find the coefficient of x^0 in $x^2 + 3x + 2 = 0$.

(a) 1 (b) 2 (c) 0 (d) 3

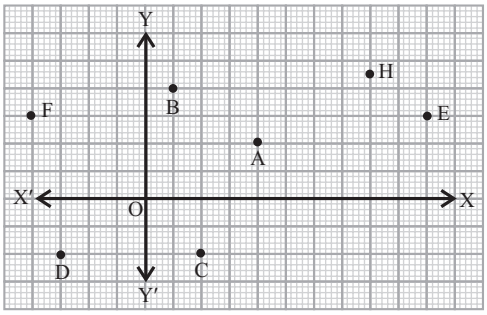
18. Student was given the assignment to prepare a graph of quadratic polynomial $y = x^2 + 2x - 3$. To draw this graph he takes six values of y corresponding to different values of x. After plotting the points on the graph paper with suitable scale. He obtain the graph as shown below.

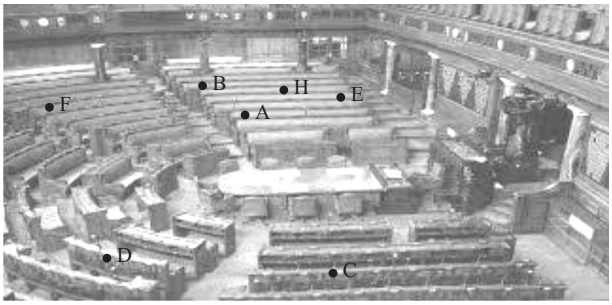


What is the graph of a quadratic polynomial called?

(a) Hyperbola (b) Parabola (c) Ellipse (d) None of these

19. Students of class X are on visit of Sansad Bhawan. Teacher assign them the activity to observe and take some pictures to analyses the seating arrangement between various MP and speaker based on coordinate geometry. The staff tour guide explained various facts related to Math's of Sansad Bhawan to the students, students were surprised when teacher ask them you need to apply coordinate geometry on the seating arrangement of MP's and speaker.





Refer to the points D and C,

Find the distance between the points C and D, if the coordinates of C is (2, – 2) and D(– 2, 3).

(a) $\sqrt{30}$ (b) 6.4 (c) 5 (d) 7

20. If in ΔABC, AB = 9 cm, BC = 40 cm and AC = 41 cm then the ΔABC is a/an

(a) Acute angled triangle (b) Right angled triangle

(c) Obtuse angled triangle (d) Isosceles triangle.

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. Find the coordinate of the point which divides the join of (– 1, 7) and (4, – 3) in the ratio 2 : 3.

(a) (1, 3) (b) (3, 1) (c) (2, 5) (d) (4, – 3)

22. The zeroes of a polynomial $p(x)$ are precisely the x-coordinates of the points, where the graph of $y = p(x)$ intersects the :

(a) x–axis (b) y–axis (c) origin (d) none of these

23. What is the ordinate of a point on the y-axis?

(a) A positive number (b) A negative number

(c) Zero (d) All the above

24. If a and b are the zeroes of the polynomial $x^2 - 2\sqrt{3}x + 3$, then the value of $\alpha + \beta - \alpha\beta$:

(a) $4\sqrt{3} - 3$ (b) $2\sqrt{3} - 3$ (c) $4\sqrt{3} + 3$ (d) $2\sqrt{3} + 3$

25. The distance between the points $(m, -n)$ and $(-m, n)$ is :

(a) $\sqrt{m^2 + n^2}$ (b) $m + n$ (c) $2\sqrt{m^2 + n^2}$ (d) $\sqrt{2m^2 + 2n^2}$

26. The perimeter of the triangle with vertices (0, 4), (0, 0) and (3, 0) is :

(a) $7 + \sqrt{5}$ (b) 5 (c) 10 (d) 12

27. The zeroes of the quadratic polynomial $x^2 + 99x + 127$ are :

(a) Both positive (b) Both negative

(c) One positive one negative (d) Both equal

28. The distance of the point (– 3, 4) from the x-axis is :

(a) 3 (b) – 3 (c) 4 (d) 5

29. If p is a prime number and p divides k^2, then p divides :

(a) $2k^2$ (b) k (c) $3k$ (d) None of these

30. A real number a is a zero of the polynomial $f(x)$ if :

(a) $f(a) > 0$ (b) $f(a) < 0$ (c) $f(a) = 0$ (d) $f(a) \geq 0$

31. If an event cannot occur, then its probability is :

(a) 1 (b) 1/2 (c) 3/4 (d) 0

32. If a is a zero of $f(x)$ then, ……. is one of the factors of $f(x)$.

(a) $(x - 2a)$ (b) $(x - a)$ (c) $(x + a)$ (d) $(2x - a)$

33. If A and B are the points (– 6, 7) and (– 1, – 5) respectively, then the distance 2AB is equal to :

(a) 13 (b) 26 (c) 169 (d) 238

34. $\sqrt{7} - 3 - \sqrt{2}$ is :

(a) a rational number (b) a natural number

(c) equal to zero (d) an irrational number

35. A man goes 12 m due West and then 9m due North. How far is he from the starting point?

(a) 12 m (b) 15 m (c) 18 m (d) 24 m

36. If $x = b \sin \theta$ and $y = b \cos \theta$ then the value of $x^2 + y^2$ is :

(a) b (b) b^2 (c) 1 (d) None of these

37. The point on x-axis which is equidistant from (– 4, 0) and (10, 0) is :

(a) (7, 0) (b) (5, 0) (c) (0, 0) (d) (3, 0)

38. If HCF $(a, b) = 12$ and $a \times b = 1800$ then LCM(a, b) is :

(a) 120 (b) 150 (c) 160 (d) 200

39. $ABCD$ is a rectangle whose vertices are $B(4, 0)$, $C(4, 3)$ and $D(0, 3)$. The length of one of its diagonals is:

(a) 4 (b) 5 (c) 3 (d) 25

40. $\dfrac{(1+\tan^2 A)}{(1+\cot^2 A)} = ?$

(a) $\sec^2 A$ (b) $\cot^2 A$ (c) $\tan^2 A$ (d) None of these

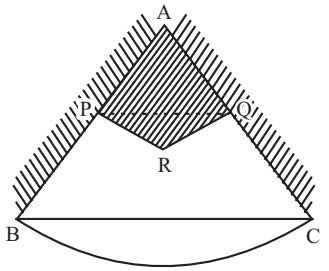
Section - C

Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : A big match of baseball is going to happen. For this a field need to be prepared. The field is somewhat triangular in shape with a semi-circle as shown in the figure.



The area in which pitch is to be made is APRQ where P and Q are two points on boundary.

As it is an important game, so dimensions need to be perfect and hence $\frac{AP}{AB} = \frac{AQ}{AC}$

We have AP = $2x$ cm, AB = $x + 4$ cm, PQ = x cm and BC = 7 cm.

Answer the following questions :

41. Which of the two similar Δs will be used to calculate the dimensions of the field?

(a) ΔPQR and ΔAPQ (b) ΔPQR and ΔABC

(c) ΔAPQ and ΔABQ (d) ΔAPQ and ΔABQ.

42. Which criteria of similarity is used for the above Δs?

(a) SSS (b) AA (c) RHS (d) SAS

43. To help the pitchmaker, transform the relation $\frac{AP}{AB} = \frac{PQ}{BC}$, into a quadratic equation in x.

(a) $x^2 - 10x = 0$ (b) $x^2 - 14x + 2 = 0$ (c) $x^2 + 14x - 2 = 0$ (d) None of these

44. Find the value of the 'x' in the equation $x_2 - 10x = 0$

(a) 8 (b) 10 (c) 7 (d) 4

45. What will be length of the side AP?

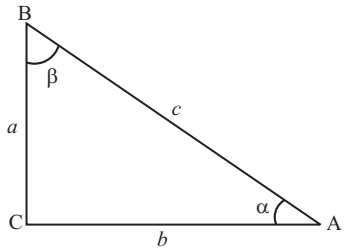
(a) 10 cm (b) 20 cm (c) 5 cm (d) 8 cm

Q 46 – Q 50 are based on Case Study-2

Case study - 2 : There are in total six trigonometric ratios, namely sine (sin), cosine (cos), tangent (tan), cosecant (cosec), secant (sec) and cotagent (cot). The trigonometric functions cosecant. Secant and cotagent are simply the reciprocals of the trigonometric functions sine, cosine and tangent for the angles of a triangle. The values of these trigonometric ratios gives a certain rational for some values of angle (say, α). Some such values for the angle of triangle are shown in the table below :

Angle / Ratio	0°	30°	45°	60°	90°
sin θ	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
cos θ	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
tan θ	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	not defined
cosec θ	not defined	2	$\sqrt{2}$	$\frac{2}{\sqrt{3}}$	1
sec θ	1	$\frac{2}{\sqrt{3}}$	$\sqrt{2}$	2	not defined
cot θ	not defined	$\sqrt{3}$	1	$\frac{1}{\sqrt{3}}$	0

→



Answer the following questions :

46. What is the value of $\sin\alpha + \cos\beta$, when the values of α and β are respectively 30° and 60°?

(a) 1 (b) 1/2 (c) 2 (d) 0

47. Find the value of $\dfrac{(\sin^2 30° - \sin 0°)}{(\cos^2 90° - \cos^2 60°)}$.

(a) 0 (b) – 1 (c) 1 (d) 1/2

48. If $\alpha = 90°$ and $\beta = 60°$, determine the value of $\sin^2\alpha + \sin^2\beta$.

(a) $\frac{4}{5}$ (b) $\frac{3}{5}$ (c) $\frac{7}{4}$ (d) $\frac{5}{3}$

49. If both α and $\beta = 60°$, find the value of $\sin^2\alpha + \cos^2\beta$.

(a) 1 (b) 2 (c) – 1 (d) – 2

50. If in the triangle ABC the lengths of sides AB and BC are in the ratio of 13 : 5, find the value of cosec α.

(a) $\frac{5}{13}$ (b) $\frac{8}{13}$ (c) $\frac{8}{13}$ (d) $\frac{13}{5}$

❑❑

Sample Paper 4

Mathematics

Section - A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. If one zero of the quadratic polynomial $x^2 - 5x - 6$ is 6, then find the value of other zero.

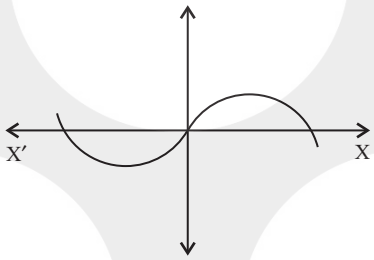
(a) 0 (b) – 1 (c) 1 (d) 2

2. If two positive integers a and b can be expressed as $a = x^2y^5$ and $b = x^3y^2$, x, y are prime numbers, then find the LCM of a and b.

(a) x^3y^5 (b) x^5y^7 (c) x^5y^5 (d) x^3y^2

3. What are the number of zeroes/zero of the polynomial $y = f(x)$, of the graph shown below.

(a) 3 (b) 4 (c) 2 (d) 1



4. If HCF (336, 54) = 6, find LCM (336, 54).

(a) 306 (b) 3224 (c) 3024 (d) 3500

5. The circumference of a circle is 22 cm. Find the area of its quadrant (in cm^2).

(a) $\frac{77}{8}$ (b) $\frac{22}{7}$ (c) 78 (d) 156

6. Find the probability of getting a number which is neither prime nor composite in a single throw of dice.

(a) $\frac{1}{4}$ (b) $\frac{2}{3}$ (c) $\frac{1}{6}$ (d) $\frac{1}{5}$

7. A wire is in the shape of a circle of radius 21 cm. It is bent to form a square. Find the side of square. $\left(\text{use } \pi = \frac{22}{7}\right)$

(a) 33 cm (b) 44 cm (c) 66 cm (d) 100 cm

8. Find the common difference of an A.P. in which $a_{10} - a_8 = 12$.

(a) 0 (b) 1 (c) 2 (d) 6

9. If the difference between the circumference and the radius of a circle is 37 cm, then using $\pi = \frac{22}{7}$,

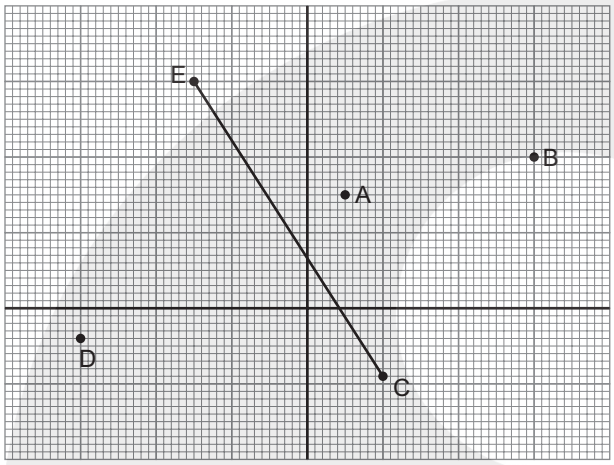
What would be the radius of the circle (in cm)?

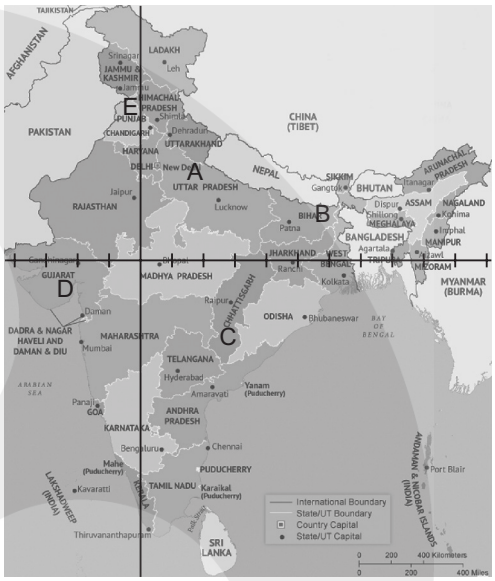
(a) 3.5 cm (b) 7 cm (c) 14 cm (d) 21 cm

10. If P(E) = 0.05, then what will be the probability of P(not E) or $P(\overline{E})$?

(a) 0.05 (b) 0.01 (c) 0.90 (d) 0.95

11. For a Math Activity of class X students, teacher show a political map of India on projector screen then ask the student that how many states they have visited in India, then ask to observe the map carefully and assign them to locate the coordinates of capital to each state. Based on information given in map. Answer the question given below.
Consider 1 block as 1000 km.

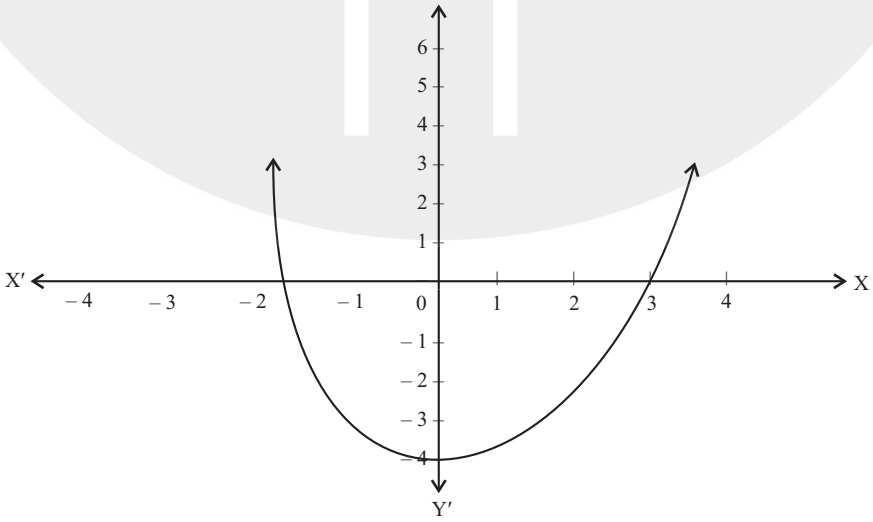




Find the distance between mobile communication tower in states Bihar and Gujrat, if these are located at B(6, 4) and D(– 6, – 1) is :

(a) 1000 km (b) 13000 km
(c) 500 km (d) 2000 km

12. On a sudden windy night, the electricity of the whole town got crashed. On the next morning, Rahul went out and found that some electric wires are hanging, it reminded him of a mathematical shape, which is shown in the figure.



To which shape this wire bends, resembles ?

(a) Spiral (b) Circle (c) Hyperbola (d) Parabola

13. If one of the zeroes of the quadratic polynomial $(k-1)x^2 + kx + 1$ is -3, then find the value of k :

(a) 3/4 (b) 4/3 (c) 3/2 (d) 2/4

14. If the HCF of 65 and 117 is expressible in the form 65m – 117, then the value of 'm' is :

(a) 4 (b) 2 (c) 1 (d) 3

15. Write whether $\dfrac{2\sqrt{45}+3\sqrt{20}}{2\sqrt{5}}$ on simplification gives a rational or an irrational number :

(a) Rational number (b) Irrational number
(c) Both (a) and (b) (d) None of these

16. Out of the followings, the incorrect statement for a quadratic polynomial is:

(a) no real zeroes (b) two equal real zeroes
(c) two distinct zeroes (d) three real zeroes

17. Solve the following pair of linear equations by substitution method :

$$x + 2y = 2$$
$$x - 3y = 7$$

(a) 2 (b) 1 (c) 4 (d) 0

18. If the points $A(x, 2)$, $B(-3, -4)$ and $C(7, -5)$ are collinear, then the value of x is :

(a) – 63 (b) 63 (c) – 60 (d) 60

19. If the HCF of two numbers is 2 and their LCM is 27, what is the product of the two numbers?

(a) 54 (b) 27 (c) 45 (d) 82

20. The perimeter of a triangle with vertices A(0, 4), B(0, 0) and C(3, 0):

(a) 3 (b) 5 (c) 10 (d) 12

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. What are the coordinates of the mid-point of A(– 1, 3) and B(1, – 1)?

(a) 1 (b) 2 (c) 3 (d) 4

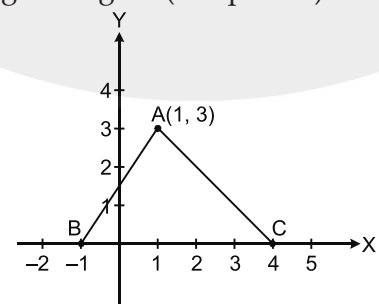
22. If zeroes of the quadratic polynomial $ax^2 + bx + c = 0$ are reciprocal of each other, then:

(a) $a = c$ (b) $a = b$ (c) $b = c$ (d) $a + c = 0$

23. In a right angled triangle ABC, right angled at B, $AB = 3$, $BC = x + 2$ and $AC = x + 3$. Then find the value of x :

(a) 4 (b) 2 (c) 1 (d) 3

24. The area of the triangle in the given figure (in sq. units) is:



(a) 15 (b) 10 (c) 7.5 (d) 2.5

25. One card is drawn from a well-shuffled deck of 52 cards. What is the probability of getting a king card?

(a) 1/13 (b) 1/3 (c) 1/4 (d) 1/2

26. If a be any composite number then $\sqrt{a}$ is always:

(a) Rational (b) Irrational
(c) Both a and b (d) None of these

27. What is the probability that a number selected at random from the numbers 1, 2, 3, ..., 15 is a multiple of 4?

(a) 1/5 (b) 1/3 (c) 1/4 (d) 1/2

28. If the HCF of two numbers is 1, then the two numbers are called:

(a) Composite (b) relatively prime or co-prime
(c) perfect (d) irrational numbers

29. What is the area of the circle that can be inscribed in a square of side 6 cm :

(a) 2π cm^2 (b) 3π cm^2 (c) 9π cm^2 (d) 4π cm^2

30. If – 4 is a zero of polynomial $x^2 - x - (2 + 2k)$ then, the value of k is :

(a) 3 (b) 9 (c) 6 (d) – 9

31. If the point $C(k, 4)$ divides the join of points $A(2, 6)$ and $B(5, 1)$ in the ratio 2 : 3, then the value of k is:

(a) 16 (b) $\frac{28}{5}$ (c) $\frac{16}{5}$ (d) $\frac{8}{5}$

32. The distance of the point (– 3, 4) from the x-axis is :

(a) 3 (b) – 3 (c) 4 (d) 5

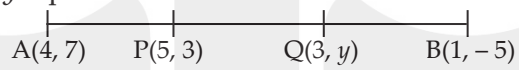
33. Some one is asked to take a number from 1 to 100. The probability that it is a prime is :

(a) 1/5 (b) 6/25 (c) 1/4 (d) 13/50

34. If $3^{x-y} = 9$ and $3^{x+y} = 81$, then value of y is :

(a) 1 (b) 2 (c) 3 (d) 4

35. In the given figure P(5, – 3) and Q(3, y) are the points of trisection of the line segment joining A(4, 7) and B(1, – 5). Then y equals:



(a) 2 (b) 4 (c) – 4 (d) $-\frac{5}{2}$

36. If θ is an acute angle and $6 + 4 \sin \theta = 8$, then the value of θ :

(a) 90° (b) 30° (c) 45° (d) 60°

37. If the coordinates of one end of a diameter of a circle are (2, 3) and the coordinates of the centre are (– 2, 5), then the coordinates of the other end of the diameter are:

(a) (– 6, 7) (b) (6, – 7) (c) (6, 7) (d) (– 6, – 7)

38. Graphically $x - 3 = 0$ represents a line:

(a) parallel to x-axis at a distance 3 units from x-axis
(b) parallel to y-axis at a distance 3 units from y-axis
(c) parallel to x-axis at a distance 3 units from y-axis
(d) parallel to y-axis at a distance 3 units from x-axis

39. The coordinates of the point P dividing the line segment joining the points $A(1, 3)$ and $B(4, 6)$ in the ratio 2 : 1 are:

(a) (2, 4) (b) (3, 5) (c) (4, 2) (d) (5, 3)

40. The pair of linear equations is said to be inconsistent if they have:

(a) only one solution (b) no solution

(c) infinitely many solutions (d) both a and c

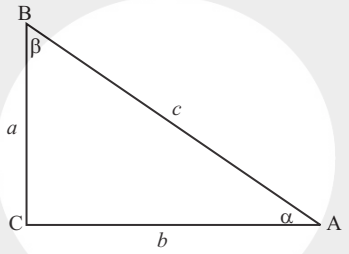
Section - C

Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : Consider a right triangle, where a and b are its length, and base and c is its hypotenuse as shown below. When we observe and apply the trigonometric functions to make a relationship between angles and sides of the right triangle. We can obtain the results as per the calculations and the table depicted below.



If the right angle of the right triangle ABC is at the point C, then the sine (sin), cosine (cos) and tangent (tan) of the angles α (at the point A) and β (at the point B). It should be noted that sin α and cos β are the equal and same goes for sin α and cos β. So, to find sine of the angle, we divide the side that is opposite of that angle and the hypotenuse. To find the cosine of the angle, we divide the side that makes that angle (adjacent side) by the hypotenuse.

Thus,

$$\sin\alpha = a/c \qquad \sin\beta = b/c$$
$$\cos\alpha = b/c \qquad \cos\beta = a/c$$
$$\tan\alpha = a/b \qquad \tan\beta = b/a$$

Answer the following questions :

41. If sides a and b of a right triangle are 3 cm and 4 cm, respectively, find the value of cosine of α.

(a) 4/5 (b) 3/5 (c) 4/3 (d) 3/4

42. Find tangent of the angle α of a right triangle, if a is 3 and b is 4.

(a) 1/4 (b) 5/3 (c) 4/3 (d) 3/4

43. Find the value of sin α + sin β.

(a) 25/12 (b) 5/3 (c) 7/5 (d) 3/20

44. Calculate tan α + tan β.

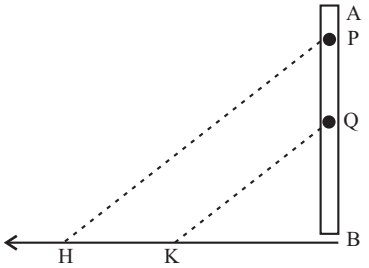
(a) 25/12 (b) 12/25 (c) 7/12 (d) 12/7

45. Find the sum of cos α + cos β of right angled triangle, if the lengths a and b are increased twice of their original values.

(a) 5/7 (b) 5/6 (c) 3/5 (d) 7/5

Q 46 – Q 50 are based on Case Study–2

Case Study–2 : Two spotlights, in a locality are mounted on a vertical pole as shown in the figure.



Here P and Q are the lights, mounted on a vertical pole AB as shown. Light beams from P and Q shine to two points on a ground, H and K respectively.

Here, PQ = 16 cm, KB = 16 cm, PH = 35 cm and QK = 20 cm.

Answer the following questions :

46. The height at which spotlight Q is mounted from the ground?

(a) 12 cm (b) 14 cm (c) 16 cm (d) 18 cm

47. The height at which spotlight P is mounted on the pole from the ground?

(a) 28 cm (b) 29 cm (c) 30 cm (d) 31 cm

48. Calculate the distance on the ground, from the pole where the projection made by the spotlight P.

(a) 21 cm (b) 38 cm (c) 18 cm (d) 12 cm

49. Find the distance between the projections of the light beam.

(a) 5 cm (b) 4 cm (c) 2 cm (d) 1 cm

50. Are the Δs KBQ and HBP similar, if so by which property?

(a) Similar, RHS (b) Similar, SAS (c) Similar, AAA (d) Not similar

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Sample Paper 5

Mathematics

Section - A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. Find the area of the circle that can be inscribed in a square of side 6 cm.

(a) 4π (b) 6π (c) 9π (d) 7π

2. 50 people work in a cooperative society. They all use their own conveyance. 20 people use their scooters, 12 go by their cars, 16 go by public transport and 2 use bicycle. Find H.C.F. of 20, 16, 12 and 2.

(a) 2 (b) 4 (c) 6 (d) 5

3. Find the quadratic polynomial, whose zeroes are – 3 and 4.

(a) $x^2 - x - 12$ (b) $2x^2 - x + 12$ (c) $x^2 - x + 4$ (d) $x^2 - 3x + 4$

4. Find the probability of an event that is certain to happen.

(a) 0 (b) 1 (c) – 1 (d) ∞

5. Write 98 as product of its prime factors.

(a) 2×7^2 (b) 3×7 (c) $5^2 \times 7$ (d) $2^2 \times 7^2$

6. If $(x + a)$ is a factor of $f(x) = (2x^2 + 2ax + 5x + 10)$, find a.

(a) 2 (b) – 1 (c) 0 (d) $\frac{-3}{2}$

7. What is the relation between the diameter and circumference of a circle?

(a) $C = 2\pi d$ (b) $C = \pi d$ (c) $C = \frac{\pi d}{2}$ (d) $C = \frac{\pi d^2}{2}$

8. What is the probability of getting at least on head on tossing two coins?

(a) $\frac{1}{4}$ (b) $\frac{3}{4}$ (c) $\frac{1}{2}$ (d) 1

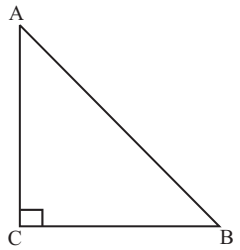
9. For what value of k is – 4 a zero of the polynomial $f(x) = x^2 - x - (2k + 2)$?

(a) 7 (b) 1 (c) 9 (d) 4

10. What are the coordinates of the mid-point of $(2a, 0)$ and $(0, 2b)$.

(a) (a, b) (b) $(a, 2)$ (c) (b, a) (d) $(2, b)$

11. In figure, ABC is an isosceles triangle right angled at C with AC = 4 cm. What is the length of AB.



(a) $2\sqrt{4}$ cm (b) $3\sqrt{4}$ cm (c) $4\sqrt{2}$ cm (d) $4\sqrt{3}$ cm

12. What is the ratio in which the point $\left(\frac{3}{5}, \frac{11}{5}\right)$ divides the line segment joining the points (3, 5) and (– 3, – 2).

(a) $\frac{3}{2}$ (b) $\frac{2}{3}$ (c) $\frac{2.5}{2}$ (d) $\frac{2}{2.5}$

13. Find a rational number between $\sqrt{2}$ and $\sqrt{3}$.

(a) 1.41 – 1.73 (b) 3.21 – 6.10 (c) 2.41 – 3.10 (d) 7.12 – 7.88

14. A bag containing 5 red and 4 black balls. If a ball is drawn at random from the bag, what is the probability of getting a black ball.

(a) $\frac{4}{9}$ (b) $\frac{9}{4}$ (c) $\frac{5}{2}$ (d) $\frac{2}{5}$

15. If the circumference of two circles are in the ratio 4 : 5, what is the ratio of their radii?

(a) 5 : 4 (b) 2 : 6 (c) 4 : 5 (d) 2 : 3

16. What is the decimal representation of $\frac{136}{1400}$?

(a) Non-terminating and non-repeating (b) Terminating and repeating
(c) Non-terminating and repeating (d) Terminating and non-repeating

17. A model of a aeroplane (somewhat triangular in shape) is made on the scale of 1 : 100. The model is 150 cm long, what is the length of the actual aeroplane ?

(a) 170 m (b) 150 m (c) 200 m (d) 15 m

18. What is the difference between the values of the polynomial $7x - 3x^2 + 7$ at $x = 1$ and $x = 2$?

(a) – 2 (b) 2 (c) 3 (d) None of these

19. A 20 m long vertical pole casts a shadow 10 m long. At the same time tower makes shadow 50 m long, the tower is ..... long.

(a) 75 m (b) 100 m (c) 105 m (d) 120 m

20. If $ax + by = c$ and $lx + my = n$ has unique solution then the relation between the coefficients will be of the form:

(a) $am \neq lb$ (b) $am = lb$ (c) $ab = lm$ (d) $ab \neq lm$

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. Which of the following statement is incorrect ?

(a) The ratio of perimeters of two similar Δs is the same as the ratio of their corresponding sides.
(b) If the areas of two similar Δs are equal, then they are congurent.
(c) If the ratio of areas of two similar Δs is equal to the ratio of the sides.
(d) If ratio of corresponding is 5 : 8, then ratio of their areas are 25 : 64.

22. The value of 'k' for which the system of linear equations $x + 2y = 3$ and $5x + ky + 7 = 0$ is inconsistent.

(a) 10 (b) 12 (c) 13 (d) None of these

23. In ΔABC and ΔDEF, it is given that $\angle B = \angle E$, $\angle F = \angle C$ and $AB = 3DE$, then the two triangles are :

(a) Congurent but not similar (b) Similar but not congurent
(c) Neither congurent nor similar (d) Similar as well as congurent

24. If (6, k) is a solution of the equation $3x + y = 22$ then the value of k is :

(a) – 4 (b) 4 (c) 3 (d) – 3

25. The line segments joining the mid-points of the sides of a triangle form four triangles, each of which is :

(a) Congurent to the original triangle (b) Similar to the original triangle
(c) an isosceles triangle (d) an equilateral triangle

26. The ratio of the HCF and LCM of 52 and 130 is:

(a) 1 : 10 (b) 10 : 1 (c) 2 : 5 (d) 5 : 2

27. The number of zeroes which a polynomial of degree n can have is:

(a) At most n (b) Exactly n (c) $n + 1$ (d) None of these

28. The perimeters of two similar triangles are 25 cm and 15 cm respectively. If one side of the first triangle is 9 cm, then the corresponding side of second triangle is :

(a) 5.4 cm (b) 8 cm (c) 9.5 cm (d) 10 cm

29. Ratios of sides of a right triangle with respect to its acute angles are known as:

(a) trigonometric identities (b) trigonometry
(c) trigonometric ratios of the angles (d) none of these

30. Prime factors of the denominator of a rational number with the decimal expansion 25.2354 are :

(a) 2, 3 (b) 2, 3, 5 (c) 2, 7 (d) 2, 5

31. A system of two simultaneous linear equations in two variables is inconsistent, if their graphs:

(a) are parallel (b) are coincident
(c) intersect at one point (d) None of these

32. If $P\left(\frac{a}{2}, 4\right)$ is the mid-point of the line segment joining the points A(– 6, 5) and B(– 2, 3), then the value of $\boldsymbol{a}$ is:

(a) – 8 (b) 3 (c) – 4 (d) 4

33. If $\sin\theta = \frac{a}{b}$ then $\cos\theta$ is equal to :

(a) $\frac{b}{\sqrt{b^2 - a^2}}$ (b) $\frac{b}{a}$

(c) $\frac{\sqrt{b^2 - a^2}}{b}$ (d) $\frac{a}{\sqrt{b^2 - a^2}}$

34. In a right angled triangle, right-angled at B, BC = 12 cm and AB = 5 cm. The radius of the circle inscribed in the triangle (in cm) is :

(a) 4 (b) 3 (c) 2 (d) 1

35. The decimal expansion of π :

(a) is terminating (b) is non terminating and recurring
(c) is non terminating and non-recurring (d) does not exist.

36. If $31x + 43y = 117$ and $43x + 31y = 105$ then, the value of $x + y$ is :

(a) – 3 (b) $\frac{1}{3}$ (c) $-\frac{1}{3}$ (d) 3

37. If A and B are the points (– 6, 7) and (– 1, – 5) respectively, then the distance 2AB is equal to :

(a) 13 (b) 26 (c) 169 (d) 238

38. What is the value of k for which the pair of linear equations $kx - 2y = 3$ and $3x + y = 5$ has a unique solution.

(a) $k = 6$ (b) $k \neq -6$ (c) $k = -6$ (d) None of these

39. Which of the following cannot be the probability of an event?

(a) 1/3 (b) 0.1 (c) 3% (d) 17/16

40. A boat is rowed downstream at 15 km/h and upstream at 8 km/h. The speed of the stream is:

(a) 3.5 km/h (b) 5.5 km/h (c) 6.5 km/h (d) 7.5 km/h

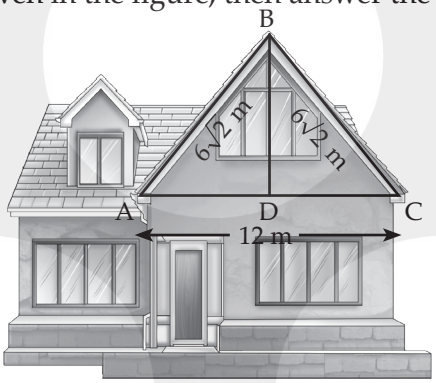
Section - C

Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : Aanya and her father go to meet her friend Juhi for a party. When they reached to Juhi's place, Aanya saw the roof of the house, which is triangular in shape. If she imagined the dimensions of the roof as given in the figure, then answer the following questions.



41. If D is the mid point of AC, then BD =

(a) 2 m (b) 3 m (c) 4 m (d) 6 m

42. Measure of A =

(a) 30° (b) 60° (c) 45° (d) None of these

43. Measure of C =

(a) 30° (b) 60° (c) 45° (d) None of these

44. Find the value of sin A + cos C :

(a) 0 (b) 1 (c) $\frac{1}{\sqrt{2}}$ (d) $\sqrt{2}$

45. Find the value of $\tan^2 C + \tan^2 A$:

(a) 0 (b) 1 (c) 2 (d) $\frac{1}{2}$

Q 46 – Q 50 are based on Case Study–2

Case Study–2 : A company manufactures two types of sanitizers Alpha and Beta. The cost of the small bottle of Alpha sanitizer is ₹ 10 and for beta sanitizer is ₹ 12. In the month of June, the company sold total 1000 bottles and makes a total sale of ₹ 10,820. Seeing the great demand and short of supply, company decided to increase the price of both the sanitizer by ₹ 1. In the next month *i.e.*, July, the company sold 2,500 bottles and total sales of ₹ 29,200.

Answer the following questions :

46. How many sanitizers of each type was sold in June ?

(a) 460, 510 (b) 540, 460 (c) 410, 590 (d) 590, 410

47. If the store sold 500 bottles of each type of sanitizer in June, what would be their sales ?

(a) ₹ 5500 (b) ₹ 5600 (c) ₹ 10,500 (d) ₹ 11,000

48. How many bottles of each type were sold in the next month when rate was increased ?

(a) 1200, 1300 (b) 1300, 1200 (c) 1550, 950 (d) 1650, 850

49. What percent of increase was found in alpha sanitizer in July as compared to June ?

(a) 182% (b) 79% (c) 179.66% (d) 50%

50. In July, if total of 1050 bootles of each type were sold, what would be the sale ?

(a) ₹ 25,000 (b) ₹ 25,200 (c) ₹ 27,000 (d) ₹ 28,500

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Sample Paper 6

Mathematics

Section – A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. Find the HCF of 52 and 320 :

(a) 16 (b) 13 (c) 4 (d) 18

2. If the points A(4, 3) and B(x, 5) lie on the circle with centre O(2, 3), then find the value of x :

(a) 2 (b) 4 (c) 6 (d) 8

3. When degree measure of angle at centre is θ, then what will be area of sector :

(a) $\sqrt{3a}$ cm (b) $\frac{\theta}{180°} \times \pi r$ (c) $\frac{\theta}{360°} \times \pi r^2$ (d) $\frac{\theta}{180°} \times 2\pi r$

4. Find the value of $\sin^2 60° + \tan^2 45° + \text{cosec } 30° \times \sec 60°$:

(a) 1 (b) $\frac{16}{5}$ (c) – 1 (d) $\frac{23}{4}$

5. If 15 cot A = 8, then find the value of sec A :

(a) $\frac{17}{8}$ (b) $\frac{15}{8}$ (c) $\frac{8}{15}$ (d) $\frac{8}{17}$

6. If $x = a$ is a solution of the quadratic polynomial $x^2 - x(a + b) + k = 0$, then find the value of k :

(a) A (b) B (c) AB (d) A^2B^2

7. If the roots of polynomial $x^2 - 3x + k = 0$ has equal roots, find the value of k :

(a) $\frac{3}{2}$ (b) $\frac{9}{4}$ (c) $\frac{1}{4}$ (d) $\frac{1}{6}$

8. If the probability of winning a game is 0.995, then the probability of losing it is :

(a) 0.05 (b) 0.005 (c) 0.5 (d) 0.001

9. In an isosceles ΔABC right angled at B, then :

(a) $AB^2 = 2AC^2$ (b) $AB^2 = AC^2$ (c) $AB^2 = \frac{AC^2}{4}$ (d) $AC^2 = 2AB^2$

10. The value of $\frac{\sec 30°}{\text{cosec } 60°}$ is :

(a) $\frac{2}{3}$ (b) $\frac{\sqrt{3}}{2}$ (c) 1 (d) 0

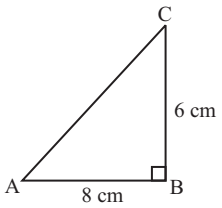
11. The roots of the quadratic polynomial $x^2 - 5x + 6 = 0$ is :

(a) – 2, – 3 (b) – 2, 3 (c) 3, – 2 (d) 3, 2

12. What will be the length of the altitude of an equilateral triangle of side $2a$ cm?

(a) a (b) $\sqrt{3}a$ (c) $\frac{a}{2}$ (d) $\frac{\sqrt{3}}{2}a$

13. In ΔABC, $\angle B = 90°$. Then sin A + cos C is :



(a) $\frac{1}{5}$ (b) $\frac{5}{6}$ (c) $\frac{6}{5}$ (d) $\frac{1}{6}$

14. The circumference of circle whose radius is 105 cm is .....

(a) 660 cm (b) 110 cm (c) 650 cm (d) 440 cm

15. What is the probability of a certain event?

(a) 1 (b) – 1 (c) 0 (d) $\frac{1}{2}$

16. If the HCF $(a, b) = 12$ and $a \times b = 1800$, then find the LCM (a, b) :

(a) 160 (b) 150 (c) 170 (d) 180

17. What are the coordinates of A where AB is diameter of circle whose centre is (2, – 3) and B is the point (1, 4) :

(a) (2, 3) (b) (3, – 10) (c) (1, – 4) (d) (0, – 6)

18. What is the probability of an impossible event?

(a) 1 (b) – 1 (c) 0 (d) $\frac{1}{2}$

19. The value of $\sin^2 45° + \cos^2 45°$ is :

(a) 1 (b) $\frac{1}{\sqrt{2}}$ (c) $\sqrt{2}$ (d) 0

20. In the standard form of quadratic polynomial, $Ax^2 + Bx + C$, A, B and C :

(a) all are real numbers
(b) all are rational numbers
(c) 'a' is a non-zero real number and B and C are any real numbers
(d) all are integers

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. If the roots of the quadratic polynomial are equal, are the discriminant $D = B^2 - 4AC$, then :

(a) $D > 0$ (b) $D < 0$ (c) $D \geq 0$ (d) $D = 0$

22. Which among the following cannot be the probability of an event ?

(a) $\frac{17}{16}$ (b) 0.01 (c) 10% (d) $\frac{1}{4}$

23. The ratio of two concentric circles are 4 cm and 5 cm. Then, what is difference in areas of their area (in sq. units) :

(a) π (b) 4π (c) 8π (d) 9π

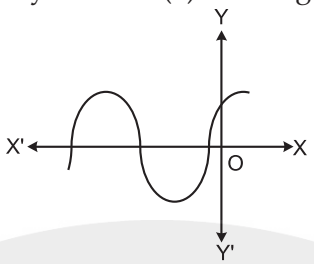
24. If one of the zeroes of the quadratic polynomial $x^2 + 3x + k$ is 2, then find the value of k :

(a) 10 (b) – 10 (c) – 8 (d) 8

25. If $\sin\theta - \cos\theta = 0$, $0 < 0 \le 90°$, then the value of θ is :

(a) 90° (b) 60° (c) 45° (d) 30°

26. Find the number of zeroes for a polynomial P(x) whose graph is given in figure



(a) 3 (b) 2 (c) 1 (d) 0

27. If A and $\frac{1}{\alpha}$ are the zeroes of the quadratic polynomial $2x^2 - x + 8k$, then k is :

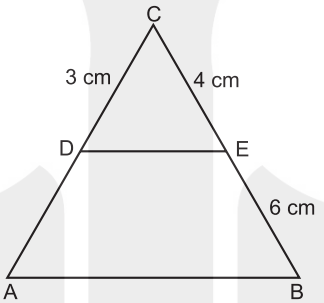
(a) 4 (b) $\frac{1}{4}$ (c) $\frac{-1}{4}$ (d) 2

28. If the sum of the roots is $-p$ and product of the roots $-\frac{1}{p}$ is, then the quadratic polynomial is :

(a) $k\left(-px^2 + \frac{x}{p} + 1\right)$ (b) $k\left(-px^2 + \frac{x}{p} - 1\right)$

(c) $k\left(x^2 + px - \frac{x}{p}\right)$ (d) $k\left(x^2 - px + \frac{x}{p}\right)$

29. In ΔABC, DE || AB, If CD = 3 cm, EC = 4 cm, BE = 6 cm, then DA is equal to :



(a) 7.5 cm (b) 3 cm (c) 4.5 cm (d) 6 cm

30. In a rectangle, length = 8 cm, breadth = 6 cm. Then its diagonal is :

(a) 9 cm (b) 14 cm (c) 10 cm (d) 12 cm

31. Distance of the point (4, A) from X-axis is half its distance from Y-axis, then A =

(a) 2 (b) 8 (c) 4 (d) 6

32. If α and $\frac{1}{\alpha}$ are the zeroes of the polynomial $4x^2 - 2x + (k - 4)$, then value of k is :

(a) 4 (b) 8 (c) 0 (d) None of these

33. The graph of $x^2 + 4 = 0$:

(a) intersects X-axis at two distinct points (b) touches X-axis at a point

(c) neither touches nor intersects X-axis (d) either touches or intersects X-axis

34. Which geometric figures are always similar?

(a) circles (b) circles and all regular polygons

(c) circles and triangles (d) Regular

35. In ΔPQR, length of the side QR is less than twice the length of the side PQ by 2 cm. Length of the side PR exceeds the length of the side PQ by 10 cm. The perimeter of 40 cm. The length of the smallest side of ΔPQR is :

(a) 6 cm (b) 8 cm (c) 7 cm (d) 10 cm

36. Express in simplest form : $\dfrac{\sin\theta}{\sqrt{1-\sin^2\theta}} =$

(a) $\cot\theta$ (b) $\sqrt{\sin\theta}$ (c) $\sin\theta/\sqrt{\cos\theta}$ (d) $\tan\theta$

37. If the centroid of triangle formed by point $p(a, b)$, $q(b, c)$ and $r(c, a)$ is at the origin, what is the value of $a + b + c$?

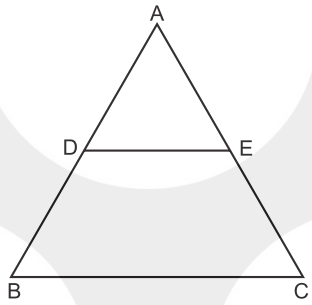
(a) 3 (b) 2 (c) 1 (d) 0

38. What will be solution of the equations, $ax + by = a - b$ and $bx - ay = a + b$?

(a) $x = 1, y = 2$ (b) $x = 2, y = -1$

(c) $x = -2, y = -2$ (d) $x = 1, y = -1$

39. In ΔABC, show in figure, D*E* || BC. If BC = 8 cm, DE = 6 cm and area of ΔADE = 45 cm^2, what is the area of ΔABC?



(a) 40 cm^2 (b) 80 cm^2 (c) 45 cm^2 (d) 70 cm^2

40. A vertical pole of length 6 m casts a shadow 4 m long on the ground at the same time a tower casts a shadow 28 m long what is the height of the tower?

(a) 45 cm (b) 36 cm (c) 42 cm (d) 64 cm

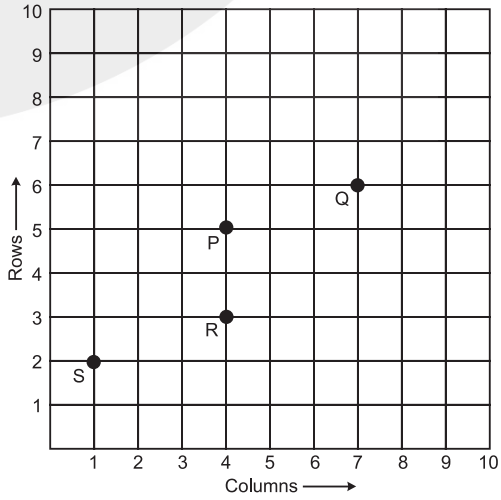
Section - C

Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : Four students of a class are standing at points P, Q, R and S in rows and columns in their playground for a drill practice (as shown in figure).



Based on the above figure answer the following questions :

41. (a) (7, 6), (4, 5), (1, 2) and (4, 3) (b) (1, 2), (4, 3), (7, 6) and (4, 5)
(c) (4, 5), (7, 6), (4, 3) and (1, 2) (d) None of these

42. When the points P, Q, R and S (in order) join together, it form a quadrilateral PQRS. The relation between the sides of quadrilateral PQRS is :
(a) QR = SP and PQ = RS (b) PQ = QR and RS = SP
(c) PQ, QR, RS and SP all are different (d) None of these

43. The length of the diagonals PR and QS are :
(a) $\sqrt{10}$ and $\sqrt{B}$ respectively (b) 2 and $\sqrt{52}$ respectively
(c) $\sqrt{2}$ and $\sqrt{10}$ respectively (d) None of these

44. The quadrilateral PQRS formed by these points is :
(a) a square (b) a rectangle (c) a parallelogram (d) a trapezium

45. The height of the quadrilateral PQRS taking SR as the base is :
(a) $\frac{\sqrt{10}}{2}$ units (b) $\frac{2\sqrt{10}}{5}$ units (c) $3\sqrt{10}$ units (d) $\frac{3\sqrt{10}}{5}$ units

Q 46 – Q 50 are based on Case Study–2

Case Study–2 : Read the above paragraph and answer the following questions.
In a morning walk, Naveeka, Arjun and Vedant step off together, their steps measuring 240 cm, 90 cm, 120 cm respectively. They want to go for a juice shop for a health issue, which is situated near by them.

46. Find the minimum distance of shop from where they start to walk together, so that one can cover the distance in complete steps ?
(a) 720 cm (b) 700 cm (c) 620 (d) 740 cm

47. Find the number of common steps covered by all of them to reach the juice shop :
(a) 20 (b) 30 (c) 35 (d) 40

48. If A and B are two numbers, then find the relation between LCM and HCF.
(a) $\frac{a}{b}$ = LCM (A, B) HCF (A, B) (b) A × B = LCM(A, B) × HCF (A, B)
(c) A × LCM (A, B) = B × HCF(A, B) (d) None of these

49. A largest positve integer that divides given two positive integers is called :
(a) HCF (b) LCM (c) co-prime (d) None of these

50. Factor tree is a chain of factors, which is represented in the form of a :
(a) tree (b) division (c) flower (d) None of these

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Sample Paper 7

Mathematics

Section - A

Section A consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

1. Write the equation of a line parallel to the X-axis.

(a) $x = a$ (b) $y = a$ (c) $x = a$ (d) $x = 0$

2. What is the smallest composite number :

(a) 2 (b) 3 (c) 7 (d) 4

3. If $\sin\theta = \frac{1}{3}$, then find the value of $2 \cot^2 \theta + 2$.

(a) 18 (b) 36 (c) 20 (d) 9

4. If piece of wire 20 cm long is bent into the form of an are of a circle subending an angle of 60° at its centre. The radius of the circle is :

(a) $\frac{60}{\pi}$ cm (b) $\frac{20}{\pi}$ cm (c) $\frac{30}{\pi}$ cm (d) $\frac{15}{\pi}$ cm

5. Find the value of : $9 \sec^2 A - 9 \tan^2 A$.

(a) 1 (b) 9 (c) – 1 (d) – 9

6. What are the zeroes of the polynomial $(x^2 - a)$?

(a) (3, 0) (b) (3, – 3) (c) (0, 3) (d) (3, 3)

7. If α, β are the zeroes of a polynomial such that $\alpha + \beta = 6$ and $\alpha\beta = 4$, then write down the polynomial.

(a) $x^2 - 6x + 4$ (b) $x^2 + 6x + 4$ (c) $x^2 + 4x + 6$ (d) $x^2 + 4x + 6$

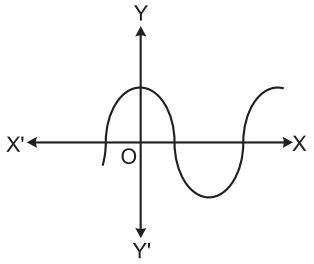
8. What is the angle described by the minute hand between 4:00 pm and 4 : 25 pm ?

(a) 120° (b) 150° (c) 90° (d) 135°

9. What is the probability of getting exacttey one head in tossig a pair of coins ?

(a) $\frac{1}{2}$ (b) $\frac{3}{4}$ (c) $\frac{1}{4}$ (d) 1

10. What are the number of zeroes of the polynomial $f(x)$ in the given graph ?



(a) 1 (b) 2 (c) 3 (d) 0

11. What is the value of tan 30° + tan 60°?

(a) $\frac{4\sqrt{3}}{3}$ (b) $\frac{2\sqrt{3}}{\alpha}$ (c) $\frac{\sqrt{3}}{\alpha}$ (d) $\frac{1}{2}$

12. If cosec θ – cot θ $= \frac{1}{5}$, then the value of cosec θ + cot θ.

(a) $\frac{1}{5}$ (b) $\frac{1}{25}$ (c) $\frac{-1}{25}$ (d) 5

13. A boy walks 12 m due east and 5 m due south. How far is he from the starting point?

(a) 12 M (b) 17 M (c) 13 M (d) 20 M

14. If two different dice are rolled together, the what's the probability of getting an even number on both dice ?

(a) $\frac{1}{4}$ (b) $\frac{3}{2}$ (c) 1 (d) 0

15. What is the ratio of the areas of a circle and an equilateral triangle whose diameoer and a side are respectively equal .

(a) $\frac{\pi}{\sqrt{3}}$ (b) $\frac{\pi}{3}$ (c) $\frac{\sqrt{3}\pi}{4}$ (d) $\frac{\pi}{2}$

16. What is the probability of getting a red queen when a card is drawn from a well shuffled pack of 52 cards ?

(a) $\frac{2}{13}$ (b) $\frac{1}{22}$ (c) $\frac{4}{13}$ (d) $\frac{1}{26}$

17. If the area and circumference of a circle are numerically equal, then the radius of circle is.....

(a) 2 units (b) 4 units (c) π units (d) 6 units

18. What is the value of k for which the pair of linear equations $kx + 3y = k - 2$ and $12x + ky = k$ has no solutions?

(a) ± 4 (b) ± 3 (c) ± 6 (d) I5

19. If 3 sec θ – 5 = 0, then value of cot θ is :

(a) $\frac{4}{3}$ (b) $\frac{1}{4}$ (c) $\frac{5}{3}$ (d) $\frac{3}{4}$

20. Find the solution of linear equations $x + y = 3$ and $7x + 6y = 2$?

(a) – 16, 19 (b) 3, 2 (c) 11, 9 (d) – 21, 20

Section - B

Section B consists of 20 questions of 1 mark each. Any 16 questions are to be attempted

21. Find the distance between the coordinates (7, – 7) and (15, 8).

(a) 13 (b) 15 (c) 17 (d) 12

22. What will be the sun of exponents of prime factors in the prime factorsation of 196 ?

(a) 2 (b) 4 (c) 6 (d) 5

23. If sin A = $\frac{3}{4}$, calculate sec A.

(a) $\frac{5}{\sqrt{7}}$ (b) $\frac{3}{\sqrt{7}}$ (c) $\frac{4}{\sqrt{7}}$ (d) None of these

24. Evaluate the zeroes of the polynomial $x^2 - 3x - m(m + 3)$.

(a) $-m, m-1$ (b) $-m, -(mt_3)$ (c) m, mt_3 (d) $-m, m+3$

25. Which among the following options is irrational ?

(a) 3.1415926535..... (b) 10.2 (c) $(0.2)^2$ (d) 0.2

26. Write down the decimal expansions of $\frac{13}{6250}$.

(a) 0.028 (b) 0.00208 (c) $\frac{0.005}{2}$ (d) $\frac{0.004}{6}$

27. If ABC and DEF are two triangles and $\frac{AB}{DE} = \frac{BC}{FD}$, then the two triangles are similar, if.

(a) $\angle A = \angle F$ (b) $\angle B = \angle D$ (c) $\angle A = \angle D$ (d) $\angle B = \angle E$

28. In ΔABC, $\angle BAC = 90°$ and $AD \perp BC$. Then,

(a) $BD.CD = BC^2$ (b) $AB.AC = BC^2$ (c) $BD.CD = AD^2$ (d) $AB.AC = AD^2$

29. The probability that cannot exist among the following :

(a) $\frac{2}{3}$ (b) – 1.5 (c) 15 % (d) 0.7

30. The point which divides the line segment of points P(– 1, 7) and Q(4, – 3) in the ratio of 2 : 3 is :

(a) (– 1, 3) (b) (– 1, – 3) (c) (1, – 3) (d) (1, 3)

31. The decimal expansion of $\frac{22}{7}$ is :

(a) terminating (b) non-terminating and non-repeating

(c) non-terminating and repeating (d) None of the abvoe

32. If the HCF of 65 and 117 is expressible in the form 65m – 117, then the value of '*m*' is :

(a) 4 (b) 2 (c) 1 (d) 3

33. Which of the following are not similar figures ?

(a) Circles (b) Squares (c) Equilateral triangle (d) Isosceles triangles

34. It is given that $\Delta ABC \sim \Delta DEF$, $\angle A = 30°$, $\angle C = 50°$, AB = 5 cm, AC = 8 cm and DF = 7.5cm. Then, which of the following is true ?

(a) DE = 12 cm, $\angle F = 50°$ (b) DE = 12 cm, $\angle F = 100°$

(c) EF = 12 cm, $\angle D = 100°$ (d) EF = 12 cm, $\angle D = 30°$

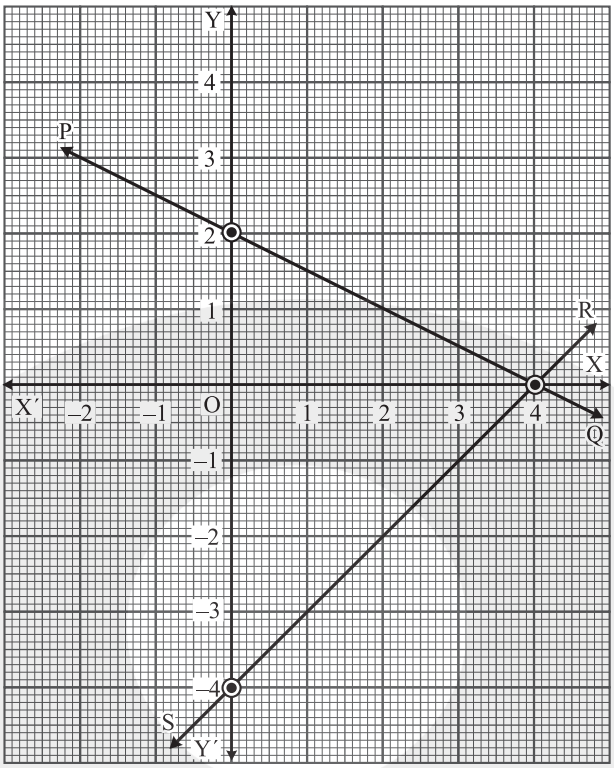
35. If one equation of a pair of dependent linear equations is – 3x + 5y – 2 = 0. The second equation will be:

(a) $-6x + 10y - 4 = 0$ (b) $6x + 10y - 4 = 0$ (c) $6x - 10y - 4 = 0$ (d) $-6x + 10y + \ = 0$

36. The value of $(\sqrt{5}+2)(\sqrt{5}-\sqrt{2})$ is :

(a) 10 (b) 7 (c) 3 (d) $\sqrt{3}$

37. What is the area of a triangle formed by lines PQ and, RS and line X = 0 ?

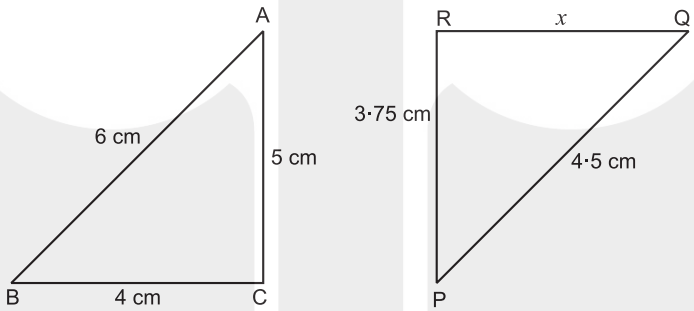


(a) 11.5 sq. units (b) 10 sq. units (c) 12 sq. units (d) 9.5 sq. units

38. If ΔABC is right angle at C, then value of cos (A + B) is :

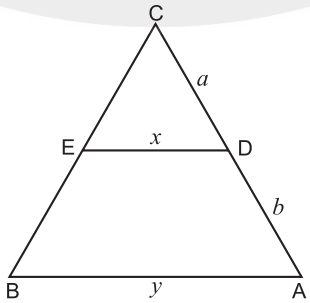
(a) 0 (b) 1 (c) $\frac{1}{2}$ (d) $\frac{\sqrt{3}}{2}$

39. In the given figure ΔABC ~ ΔPQR the value of x is :



(a) 2.5 cm (b) 3.5 cm (c) 2.75 cm (d) 3 cm

40. In the given figure, DE || AB, which of the following is true ?



(a) $x = \frac{a+b}{ay}$ (b) $y = \frac{ax}{a+b}$ (c) $x = \frac{ay}{a+b}$ (d) $\frac{x}{y} = \frac{a}{b}$

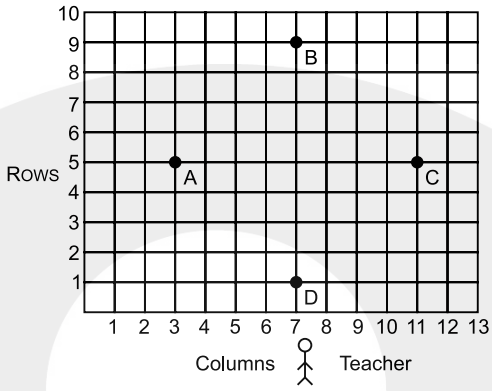
Section - C

Case study based questions :

Section C consists of 10 questions of 1 mark each. Any 8 questions are to be attempted

Q 41 – Q 45 are based on Case Study-1

Case Study–1 : Students of a school are studying in rows and columns in their playground for a drill practice. A, B, C and D are the positions of four students as shown in the figure.



41. The coordinates of A and B respectively is :
(a) A(3, 5); B(7, 8) (b) A(5, 3); B(8, 7)
(c) A(3, 5); B(7, 9) (d) A(5, 3); B(9, 7)

42. The coordinates of C and D respectively is :
(a) C(11, 5), D(7, 1) (b) C(5, 11), D(1, 7)
(c) C(5, 11), D(7, 1) (d) C(5, 11), D(–1, 7)

43. Is it possible to place Ram (R) in the drill in such away that he is equidistant from all the four students A, B, C and D ?
(a) Yes (b) Not possible
(c) Not rure (d) None

44. What are the coordinates of the position of Ram ?
(a) (7, 5) (b) (5, 7) (c) (7, 7) (d) (5, 5)

45. The distance between B and D is:
(a) 5 units (b) 14 units (c) 8 units (d) 10 units

Q 46 – Q 50 are based on Case Study–2

Case Study–1 : A seminar is being conducted by an educational organisation, where the participants will be educators of different subjects. The number of participants in Hindi, English and Mathematics are 60, 84 and 108 respectively.

46. In each room the same number of participants are to be seated and all of them being in the same subject, hence maximum number of participants that are accommodate in each room are :
(a) 14 (b) 12 (c) 16 (d) 18

47. What is the minimum number of rooms required during the event ?
(a) 11 (b) 31 (c) 41 (d) 21

48. The LCM of 60, 84, and 108 is :
(a) 3780 (b) 3680 (c) 47 80 (d) 4680

49. The product of HCF and LCM of 60, 84, and 108 is :
(a) 55360 (b) 35360 (c) 45500 (d) 45360

50. 108 can be expressed as a product of its primes as :
(a) $2^3 \times 3^2$ (b) $2^3 \times 3^3$ (c) $2^2 \times 3^2$ (d) $2^2 \times 3^3$

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Answers

Sample Paper 1

Section - A

1. (c) 16

Explanation: HCF of (16, 32)

Prime factors of 16 = 2 × 2 × 2 × 2

Prime factors of 32 = 2 × 2 × 2 × 2 × 2

Hence, HCF (16, 32) = 2 × 2 × 2 × 2 = 16

2. (c) 0.7

Explanation: Given, P (winning)= 0·3

So, P(losing)= 1 – 0·3 = 0·7

3. (a) 144.38 cm^2

Explanation: Given, Diameter of circle= 21 cm

$$\text{Radius of circle} = \frac{21}{2}\text{ cm}$$

$$\text{Angle of sector} = 150°$$

$$\text{Area of sector} = \frac{\theta}{360} \times \pi r^2$$

$$= \frac{150}{360} \times \frac{22}{7} \times \frac{21}{2} \times \frac{21}{2}$$

$$= 144.38 \text{ cm}^2$$

4. (b) $k(2x^2 + x - 6)$

Explanation: Given : Sum of its zeroes $(S) = -\frac{1}{2}$,

and product of zeroes $(P) = -3$

Polynomial of degree 2 is given as,

$$f(x) = k\{x^2 - (\text{Sum of zeroes})x + \text{Product of zeroes}\}$$

$$\Rightarrow \quad f(x) = k\left\{x^2 - \left(-\frac{1}{2}\right)x + (-3)\right\}$$

$$\Rightarrow \quad f(x) = k\left(\frac{2x^2 + x - 6}{2}\right)$$

$$\therefore \quad f(x) = k(2x^2 + x - 6), \text{ where } k = \frac{1}{2}$$

5. (c) Parallel lines

Explanation: Here, $\frac{a_1}{a_2} = \frac{6}{2} = \frac{3}{1}$

$\Rightarrow \quad \frac{b_1}{b_2} = \frac{-3}{-1} = \frac{3}{1}$

$\Rightarrow \quad \frac{c_1}{c_2} = \frac{10}{9}$

$\Rightarrow \quad \frac{a_1}{a_2} \neq \frac{b_1}{b_2} \Rightarrow$ intersecting

$\Rightarrow \quad \frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2} \Rightarrow$ parallel

$\Rightarrow \quad \frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2} \Rightarrow$ coincedent

As $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$. So, the given pair of lines are represented as parallel lines graphically.

6. (a) 2 or 5

Explanation: For a rational number to be terminating factors of denominator must be 2 or 5. It should be of the form $2^n \times 5^m$.

7. (a) 14 : 11

Explanation: Given : Circumference of circle = Perimeter of square

$\Rightarrow \quad 2\pi r = 4a$ [where, r is radius of circle and 'a' is the side to square]

$\Rightarrow \quad \frac{r}{a} = \frac{2}{\pi}$ ...(i)

Now, $\frac{\text{Area of circle}}{\text{Area of square}} = \frac{\pi r^2}{a^2}$

$= \pi\left(\frac{r}{a}\right)^2 = \pi\left(\frac{2}{\pi}\right)^2$ [from (i)]

$= \frac{4}{\pi} = \frac{4 \times 7}{22} = \frac{14}{11}$

Hence, Area of circle : Area of square = 14 : 11.

8. (b) Non-terminating

Explanation: The rational number has a non-terminating decimal representation because

$(2^2 5^7 7^2) \neq (2^m \times 5^n)$

9. (c) 2

Explanation: As $x^0 = 1$, so its coefficient is the constant term. Hence the correct option is (c).

10. (a) 2

Explanation: We know that,

Smallest prime number = 2 = 2 × 1

Smallest composite number = 4 = 2 × 2

So, HCF (2, 4) = 2.

11. (c) 3024

Explanation: Given, HCF (336, 54) = 6

We know, $$\text{LCM}(336, 54) = \frac{\text{Product of two numbers}}{\text{HCF}(336, 54)}$$

$$= \frac{336 \times 54}{6}$$

$$= 3024$$

$\therefore$ $$\text{LCM}(336, 54) = 3024$$

12. (d) 10

Explanation: Using distance formula,

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Here, $(x_1, y_1) = (-6, 8)$

$(x_2, y_2) = (0,0)$

$$d = \sqrt{(0-(-6))^2 + (0-8)^2}$$

$$d = \sqrt{(6)^2 + (8)^2}$$

$$d = \sqrt{36 + 64}$$

$$d = \sqrt{100} = 10 \text{ units}$$

Hence, point (– 6, 8) is at a distance of 10 units from origin.

13. (b) 1 : 1

Explanation: Given, $x + \frac{1}{x} = 2$

$$x^2 + 1 = 2x$$

$$x^2 - 2x + 1 = 0$$

$$x^2 - x - x + 1 = 0$$

$$(x-1)(x-1) = 0$$

$$x - 1 = 0 \quad \text{or} \quad x - 1 = 0$$

$$x = 1 \quad \text{or} \quad x = 1$$

Hence roots of the given equation are 1, 1.

14. (c) 3

Explanation: Given system of equation is,

$$cx - y = 2$$

$$6x - 2y = 4$$

Here, $a_1 = c, b_1 = -1, c_1 = 2$

$a_2 = 6, b_2 = -2, c_2 = 4$

For infinity many solution

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$$

$\Rightarrow$ $$\frac{c}{6} = \frac{-1}{-2} = \frac{2}{4}$$

$\Rightarrow$ $$\frac{c}{6} = \frac{-1}{-2}$$

$\Rightarrow \qquad c = \frac{-6}{-2} = 3$

Hence for $c = 3$ given system of equation has infinity many solutions.

15. (a) 9π

Explanation: Area of circle with radius 4 cm $= \pi r^2$

$= (4)^2\pi$

$= 16\pi$

Area of circle with radius 5 cm $= \pi r^2$

$= (5)^2\pi$

$= 25\pi$

Difference in their area $= \pi (R^2 - r^2)$

$= \pi\ ((5)^2 - (4)^2)$

$= 9\pi.$

16. (a) 2500

Explanation: $x + y = 2500$ ...(i)

$x - y = 2500$ ...(ii)

On adding equations (i) and (iv),

$x = 2500$

17. (c) $\tan\theta$

Explanation: $\tan\theta = \frac{P}{B} = \frac{\text{Opposite side}}{\text{Adjacent side}}$

18. (a) $3x^2 - 8x + 2 = 0$

Explanation: If $x = \frac{8 \pm \sqrt{(-8)^2 - 4\times3\times2}}{2\times3}$ then on comparing with $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ we have $b = -8$, $a = 3$ and $c = 2$. So the required polynomial is $3x^2 - 8x + 2 = 0$. So the correct option is (a).

19. (c) 2 units

Explanation: By distance formula

$$AB = \sqrt{\left(-\frac{8}{5} - \frac{2}{5}\right)^2 + (2-2)^2}$$

$$= \sqrt{(-2)^2} = \sqrt{4} = 2 \text{ units}$$

20. (c) 4, – 2

Explanation: As per the question,

$2x + 3y = 2$ ...(i)

$x - 2y = 8$ ...(ii)

Multiplying equation (i) with 2 and equation (ii) with 3, we have

$4x + 6y = 4$ ...(iii)

and $3x - 6y = 24$ ...(iv)

Thus, adding the equation (iii) & (iv), we get

$$7x = 28$$

$$\Rightarrow \quad x = 4$$

Putting $x = 4$ in equation (ii), we have

$$4 - 2y = 8$$

$$\Rightarrow \quad -2y = 4$$

$$\Rightarrow \quad y = -2$$

Hence, the values of x and y are 4, – 2 respectively.

So the correct option is (c).

Section - B

21. (c) $\sqrt{2}$

Explanation: The value of θ is 45°, then the value of sec 45° is $\sqrt{2}$.

22. (c) 13 units

Explanation: We know if $P(x, y)$ be any point than its distance from (0, 0) be $\sqrt{x^2 + y^2}$

$$\sqrt{(12)^2 + (5)^2} = \sqrt{144 + 25} = \sqrt{169} = 13 \text{ units}$$

23. (c) 2

Explanation: As $x^0 = 1$, so its coefficient is the constant term. Hence the correct option is (c).

24. (a) All isosceles triangles are similar.

Explanation: No, all isosceles triangles are not similar. An isosceles triangle is a triangle with two sides of equal length.

25. (a) sin θ and cos θ

Explanation: sin θ and cos θ

$$\because \quad \cos\theta = \frac{1}{\sec\theta}$$

$$\operatorname{cosec}\theta = \frac{1}{\sin\theta}$$

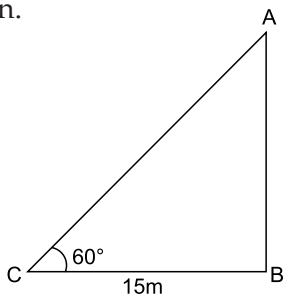
$$\tan\theta = \frac{1}{\cot\theta}$$

26. (a) product of numbers

Explanation: The L.C.M of two co-prime numbers is always a product of numbers.

27. (b) 26 m

Explanation: Here, AB is building and C is the point of observation.



$$\tan 60° = \frac{AB}{BC}$$

$$\Rightarrow \quad \sqrt{3} = \frac{AB}{15}$$

$$\Rightarrow \quad AB = 15\sqrt{3} \text{ m}$$

$$= 25.95 \text{ m}$$

$$\simeq 26 \text{ m}$$

28. (a) 2, – 1

Explanation: As per the question,

$$3x + 2y = 4 \quad \ldots(i)$$

$$2x - 3y = 7 \quad \ldots(ii)$$

Multiplying equation (i) with 3 and equation (ii) with 2, we have

$$9x + 6y = 12 \quad \ldots(iii)$$

and $$4x - 6y = 14 \quad \ldots(iv)$$

Thus, adding the above two equations we get

$$13x = 26$$

$$\Rightarrow \quad x = 2$$

Putting $x = 2$ in equation (i), we have

$$6 + 2y = 4$$

$$\Rightarrow \quad 2y = -2$$

$$\Rightarrow \quad y = -1$$

Hence, the values of x and y are 2, – 1 respectively.

So the correct option is (a).

29. (c) 6

Explanation: In ΔABC

By pythagoras theorem

$$AC^2 = AB^2 + BC^2$$

$$100 = 64 + BC^2$$

$$BC^2 = 36$$

$$BC = 6$$

30. (c) $\tan^2 \theta$

Explanation: $1 + \tan^2 \theta = \sec^2 \theta$

31. (b) $\frac{25}{36}$

Explanation: Total number of case in which 5 comes either time are

{(5, 1), (5, 2), (5, 3), (5, 4), (5, 5), (5, 6), (1, 5), (2, 5), (3, 5), (4, 5), (6, 5)}

$$P(5 \text{ will not come up either time}) = \frac{36-11}{36} = \frac{25}{36}$$

32. (a) $a \neq 0$

Explanation: For $a \neq 0$, the given equation be a quadratic equation.

The correct option is (a).

33. (a) (2, 3)

Explanation: We know mid-point formula $\left\{\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right\} = \left\{\frac{6-2}{2}, \frac{8-2}{2}\right\} = (2,3)$

34. (c) $\frac{x^2-1}{2x}$

Explanation: $\sec A + \tan A = x$ ...(i)

so $\sec A - \tan A = \frac{1}{x}$ ...(ii)

equation (i) – equation (ii),

$$2 \tan A = x - \frac{1}{x}$$

$$2 \tan A = \frac{x^2-1}{x}$$

$$\tan A = \frac{x^2-1}{2x}$$

35. (d) 2, 3

Explanation: As per the question,

$$x - y = -1 \quad \ldots(i)$$

$$3x + 2y = 12 \quad \ldots(ii)$$

Multiplying equation (i) with 2

$$2x - 2y = -2 \quad \ldots(iii)$$

and $3x + 2y = 12$ ...(iv)

Thus, adding the above two equations we get

$$5x = 10$$

$\Rightarrow$ $x = 2$

Putting x = 2 in equation (i), we have

$$2 - y = -1$$

$\Rightarrow$ $-y = -3$

$\Rightarrow$ $y = 3$

Hence, the values of x and y are 2, 3 respectively.

So the correct option is (d).

36. (c) $\frac{1}{12}$

Explanation: Total number of case in which 10 comes as a sum are {(5, 5), (6, 4), (4, 6)}

$$P(10 \text{ comes as a sum}) = \frac{3}{36} = \frac{1}{12}$$

37. (a) 3

Explanation: $x + y = 2 \sin^2 \theta + 2 \cos^2 \theta + 1 = 2(\sin^2 \theta + \cos^2 \theta) + 1 = 3$

38. (c) Both (i) and (ii)

Explanation: If coefficient of x^2 is 0, then

$$p^2 - 1 = 0$$

$$p^2 = 1$$

$$p = \pm 1.$$

The correct option is (c).

39. (b) 1/7

Explanation: A non-leap year has 365 days

A year has 52 weeks. Hence there will be 52 Sundays for sure.

$$52 \text{ weeks} = 52 \times 7 = 364 \text{ days}$$

365– 364 = 1 day extra.

In a non-leap year there will be 52 Sundays and 1day will be left.

This 1 day can be Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.

of these total 7 outcomes, the favorable outcomes are 1.

Hence the probability of getting 53 Sundays = 1 / 7.

40. (d) 7

Explanation: Let the radius be r cm.

Thus, circumference $= 2\pi r$ cm

Now, $2\pi r - r = 37$

$\Rightarrow$ $r\left(\frac{44}{7} - 1\right) = 37$

$\Rightarrow$ $r\left(\frac{44-7}{7}\right) = 37$

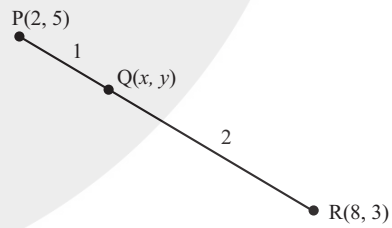
$\Rightarrow$ $r = \frac{7 \times 37}{37} = 7$ cm

So, the correct option is (d).

Section - C

41. (a) $\left(4, \frac{13}{3}\right)$

Explanation: Coordinates of point Q can be found by using selection formula.



$$x = \frac{m_1x_2 + m_2x_1}{x_1 + x_2}$$

$$x = \frac{1(8) + 2(2)}{3} = \frac{12}{3} = 4$$

$$y = \frac{m_1y_2 + m_2y_1}{m_1 + m_2}$$

$$= \frac{1(3) + 2(5)}{3} = \frac{13}{3}$$

Co-ordinates of point Q are $\left(4, \frac{13}{3}\right)$

42. (a) $2\sqrt{10}$

Explanation: Distance between points PR can be denoted as :

$$PR = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$= \sqrt{(8-2)^2 + (3-5)^2}$$

$$= \sqrt{6^2 + 2^2} = \sqrt{40} = 2\sqrt{10}$$

43. (c) $\left(\frac{3}{4}, 0\right)$

Explanation: As the point 'A' lies on X-axis. So, co-ordinates of the point can be assumed as $(x, 0)$

As point 'A' is equidistant from point P and Q

We use distance formula.

$$PA = QA$$

$$(2-x)^2 + (5-0)^2 = (4-x)^2 + (4-0)^2$$

$$4 + x^2 - 4x + 25 = 16 + x^2 - 8x + 16$$

$$4x = 16 + 16 - 4 - 25$$

$$x = \frac{3}{4}$$

44. (c) $\sqrt{5}$

Explanation: Distance between P(2, 5) and Q(4, 4)

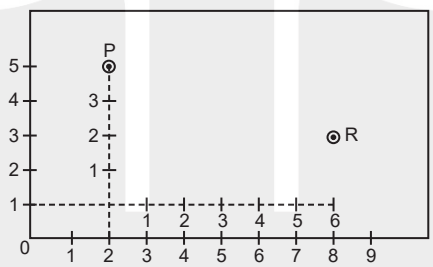
By distance formula,

$$PQ = \sqrt{(4-2)^2 + (4-5)^2}$$

$$= \sqrt{2^2 + 1^2} = \sqrt{5}$$

45. (b) (6, 2)

Explanation: By shifting the co-ordinates system by 2 units towards right and 1 unit towards north.



The co-ordinates of point R is (6, 2).

46. (c) Pythagoras theorem

Explanation: Pythagoras theorem.

47. (a) 10 units

Explanation: In ΔABC,

$$AC = 2 + 2 + 2 + 2 = 8 \text{ units}$$

$$BC = 1 + 1.6 + 1.6 + 1.8 = 6 \text{ units}$$

By using Pythagoras theorem,

$$AB^2 = AC^2 + BC^2$$

$$= 8^2 + 6^2$$
$$= 64 + 36$$
$$= 100$$
$$AB = \sqrt{100} = 10 \text{ units}$$

48. (d) It is applicable to all type of triangle.

Explanation: It is applicable to all type of triangle

As it is applicable only to the right angled triangle.

49. (a) 1.5 units

Explanation: Since we know that total height of all stair-case is 6 units.

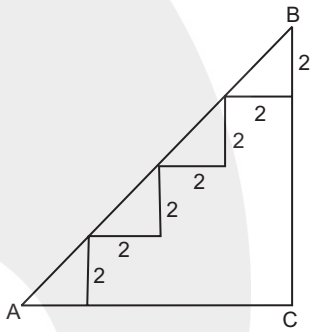
And there are four stair-case. So, height of each stair-case is $= \frac{6}{4} = 1.5$ units.

50. (a) $8\sqrt{2}$ units

Explanation: Since, length and breadth of stair case is same *i.e.* 2 units

then $AC = 2 + 2 + 2 + 2 = 8$ units

$BC = 2 + 2 + 2 + 2 = 8$ units



Then using Pythagoras theorem, we get

$$(AB)^2 = (AC)^2 + (BC)^2$$
$$= (8)^2 + (8)^2$$
$$= 64 + 64$$
$$(AB)^2 = 128 \text{ units}$$
$$AB = 8\sqrt{2} \text{ units}$$

Sample Paper 2

Section - A

1. (a) $\frac{1}{2}$

Explanation : P(getting an even number) $= \frac{3}{6} = \frac{1}{2}$.

2. (c) 16

Explanation : Since, $\cos\theta = \frac{3}{4}$

$$9\tan^2\theta + 9 = 9(1 + \tan^2\theta)$$
$$= 9 \times \sec^2\theta$$
$$= \frac{9}{\cos^2\theta} = \frac{9}{(3/4)^2} = \frac{9 \times 16}{9}$$
$$= 16$$

3. (b) 6

Explanation : For no solution

$$\frac{1}{3} = \frac{2}{k} \neq \frac{-5}{15}$$

$\Rightarrow$ $k = 6.$

4. (a) $\frac{1}{2}$

Explanation : $\tan^2 45° - \cos^2 30° = x \sin 45°.\cos 45°$

$$\Rightarrow \quad (1)^2 - \left(\frac{\sqrt{3}}{2}\right)^2 = x \times \frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}}$$

$$\Rightarrow \quad 1 - \frac{3}{4} = \frac{x}{2}$$

$$\Rightarrow \quad \frac{1}{4} = \frac{x}{2}$$

$$\Rightarrow \quad x = \frac{1}{2}$$

5. (b) $\frac{77}{4}$ cm^2

Explanation : Given, circumference of circle

$$= 2\pi r = 22 \text{ cm}$$

or $r = \frac{11}{\pi}$ cm

$\therefore$ Area of the semicircle $= \frac{\pi r^2}{2} = \frac{\pi}{2} \times \frac{11}{\pi} \times \frac{11}{\pi}$

$$= \frac{11 \times 11 \times 7}{2 \times 22}$$

$$= \frac{77}{4} \text{ cm}^2$$

6. (d) 9

Explanation : $9 \text{ cosec}^2 A - 9 \cot^2 A$

$9 [\text{cosec}^2 A - \cot^2 A] = 9$ $[\because \text{cosec}^2 A = 1 + \cot^2 A]$

7. (c) 3

Explanation : Sum of zeroes $= -2 + 5 = \frac{3}{1} = \frac{-(-3)}{1} = \frac{-b}{a}$

Product of zeroes $= -2 \times 5 = \frac{-10}{1} = \frac{c}{a}$

Now, $a = 1, b = -3, c = -10$

Required polynomial $= ax^2 + bx + c$

$= 1.x^2 - 3.x - 10$

$= x^2 - 3x - 10$

When we multiply or divide any polynomial by any arbitrary constant, the zeroes of polynomial remain the same.

Multiply by k,

$$p(x) = kx^2 - 3kx - 10k$$

where, k is a real number.

Divide by k,

$$p(x) = \frac{x^2}{k} - \frac{3x}{k} - \frac{10}{k}$$

where, k is a non-zero and number.

Thus, the required number of polynomials is infinite *i.e.* more than 3.

8. (c) 61.6 cm

Explanation : Radius of circle = 9.8 cm

Circumference of circle $= 2\pi r$

$$= 2 \times \frac{22}{7} \times 9.8$$

$$= 44 \times 1.4 = 61.6 \text{ cm}$$

9. (a) 3, – 3

Explanation : $x^2 - 9 = 0$

$(x + 3)(x - 3) = 0$

$x = -3, x = 3$

10. (a) $\frac{1}{2}$

Explanation : P(getting a prime number) = 3/6 =1/2

11. (b) 0

Explanation : $\frac{1-\tan^2 45°}{1+\tan^2 45°} = \frac{1-1}{1+1} = 0$

12. (c) $\frac{\theta}{360°} \times \pi R^2$

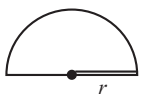
Explanation : if the angle is θ and the radius is R then $\frac{\theta}{360°} \times \pi R^2$

13. (d) – 5

Explanation : $\alpha + \beta = \frac{-b}{a} = -5.$

14. (b) $r(\pi + 2)$

Explanation : $(\pi r + d)$ In a circle of radius `r'



$$P = \pi r + 2r = r(\pi + 2)$$

15. (a) $\frac{2}{5}$

Explanation : Probability of getting blue marble $= \frac{\text{Number of blue marbles}}{\text{Total number of marbles}} = \frac{2}{5}$

16. (a) 2520

Explanation : We have,

$$40 = 2^3 \times 5$$
$$42 = 2 \times 3 \times 7$$
$$45 = 3^2 \times 5$$
$$\therefore \quad \text{LCM of 40, 42 and 45} = 2^3 \times 3^2 \times 5 \times 7$$
$$= 2520$$

So, after the walk of 2520 cm, each can cover the same distance in complete steps.

Thus, Priya and Ravish will meet again at the starting point after 36 min.

17. (c) 9

Explanation : Given, $f(x) = x^2 - x - (2k + 2)$

If – 4 is the zero of the polynomial $f(x)$.

Then
$$f(-4) = 0$$
$$(-4)^2 - (-4) - (2k + 2) = 0$$
$$16 + 4 - (2k + 2) = 0$$
$$20 - (2k + 2) = 0$$
$$20 - (2k + 2) = 0$$
$$18 - 2k = 0$$
$$2k = 18$$
$$k = 9$$

18. (a) p^2q^2

Explanation : Since, $\sec^2\theta - \tan^2\theta = 1$ and $\sec\theta = \frac{x}{p}$, $\tan\theta = \frac{y}{q}$

$$\frac{x^2}{p^2} - \frac{y^2}{q^2} = 1$$
$$\therefore \quad x^2q^2 - y^2p^2 = p^2q^2$$

19. (b) $\frac{3}{4}$

Explanation : When two coins are tossed, total outcomes are HH, HT, TH, TT.

∴ Favourable outcomes = HH, HT, TH .

∴ P(at most one head) = 3/4

20. (c) $\frac{4}{11}$

Explanation : Total number of letters = 11

Total number of vowels = 4

Required probability $= \frac{4}{11}$

Section - B

21. (b) $x^2 + x - 2$

Explanation : Quadratic polynomial $= x^2 -$ (Sum of zeroes) x + (Product of zeroes)

$= x^2 - [1 + (-2)]x + [1 \times (-2)]$

$= x^2 + x - 2$

22. (c) 36

Explanation : Number of minutes after which they will meet again at the starting point

= L.C.M. of 18 and 12

$= 2^2 \times 3^2$

= 36

23. (b) 1

Explanation : For , sin 60° cos 30° + sin 30° cos 60°

$$= \frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} + \frac{1}{2} \times \frac{1}{2}$$

$$= \frac{3}{4} + \frac{1}{4} = 1$$

24. (c) $\angle ABC \sim \angle PQR$

Explanation :

In Δ ABC and In Δ PQR

AB = PQ , AC = PR

$\angle BAC = \angle QPR$

$\therefore$ $\Delta ABC \cong \Delta PQR$ (by SAS)

25. (a) x

Explanation : The x - coordinate of the point (0,4) is zero. Point (0,4) lies on y - axis.

26. (b) 96

Explanation : Le the number of questions he answered correctly by x and number of questions he answered by giving be y.

Then, $x + y = 120$ ...(1)

and $x + 1 + y \times \left(-\frac{1}{4}\right) = 90 \Rightarrow x - \frac{y}{4} = 90$

$\Rightarrow$ $4x - y = 360$ ...(2)

Pm sp;vomg eqs. (1) and (2), we get

$x = 96$ and $y = 24$

Here, he answered 96 questions correctly.

27. (c) 29 m

Explanation : From the figure we note that

BC = 40 m – 19 m = 21 m

and AC = 29 m

Therefore, by Pythagoras theorem,

$AB^2 = AC^2 + BC^2$

$= 202 + 212$

$= 400 + 441 = 841$

$\Rightarrow \quad AB = 29$ m

28. (a) 1

Explanation : Here, $A = 2n + 13$, $B = n + 7$

$\therefore \quad$ H.C.F(A, B) $= 1$ (Since, there is no common factor in A & B)

29. (b) $\angle B = 90°$

Explanation: It is given that is triangle ABC, BD $\perp$ AC such that

$$BD^2 = DC.AD$$

Therefore, applying Pythagoras theorem in triangles ABD and BCD, we get

$$AB^2 = BD^2 + AD^2 \quad ...(1)$$

$$BC^2 = BD^2 + DC^2 \quad ...(2)$$

Adding equations (1) and (2), we get,

$$AB^2 + BC^2 = 2BD^2 + AD^2 + DC^2$$

$$= 2(DC.AD) + AD^2 + DC^2 \quad [\because BD^2 = DC.AD]$$

Therefore, $AB^2 + BC^2 = (AD + DC)^2 = AC^2$

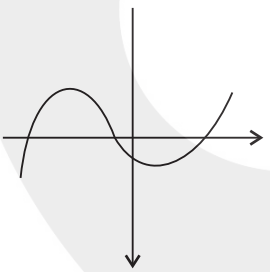
This means that by converse of Pythagoras theorem, ABC is a right triangle with AC is the hypotenuse and angle oppotise to AC is 90°. Therefore, $\angle B = 90°$.

30. (b) 9 sq. units

Explanation : Area of $\Delta ABC = \frac{1}{2} \times BC \times OA = \frac{1}{2} \times 6 \times 3$

$= 9$ sq. units.

31. (d)



Explantion: Here, graph cuts the x - axis at 3-points. So, it is a cubic polynomial.

32. (c) 24 cm

Explanation: Applying Pythagoras theorem in triangle PQR, we get,

$$PR^2 = QP^2 + QR^2 = 6^2 + 8^2 = 1000$$

$\Rightarrow \quad PR = 10$ cm

Now, the apply Pythagoras theorem in triangle PQR.

$$QR^2 = PQ^2 + PR^2$$

$\Rightarrow \quad 26^2 = PQ^2 + 10^2$

$\Rightarrow \quad PQ^2 = 26^2 - 10^2$

$= 676 - 100 = 576$

Therefore, $PQ = 24$ cm.

33. (b) (– 10, 2)

Explanation : Let, the coordinates of the third vertex be (x, y).

Then, $\left(\frac{x+3-7}{3}, \frac{y-5+4}{3}\right) = (2, -1)$

$\Rightarrow \left(\frac{x-4}{3}, \frac{y-1}{3}\right) = (2, -1)$

$\Rightarrow \frac{x-4}{3} = 2, \frac{y-1}{3} = -1$

$\Rightarrow x = 10, y = -2$

$\therefore$ coordinates of third vertex is (10, – 2).

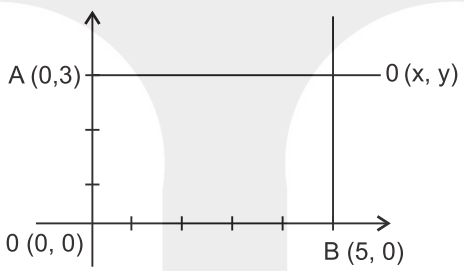
34. (c) $\sqrt{34}$ units

Explanation :

Length of diagonal = AB $= \sqrt{(5-0)^2 + (3-0)^2}$

$= \sqrt{25+9}$

$= \sqrt{34}$ units



In a rectangle AOBD, diagonals are of equal length.

35. (c) 4.5 cm

Explanation : In ΔABC, DE || AB, by thales theorem,

$$\frac{CD}{AD} = \frac{CE}{BE}$$

$$\Rightarrow \frac{3}{AD} = \frac{4}{6}$$

$$\Rightarrow AD = \frac{6 \times 3}{4}$$

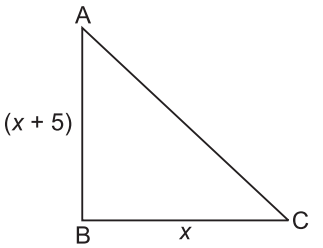
$$= \frac{9}{2} = 4.5 \text{ cm}$$

36. (a) 20 cm

Explanation: Consider the right ABC as shown below :

Ler BC = x cm, then AB = $(x + 5)$ cm.

As ABC is a right tiangle, applying Pythagoras theorem, we get,



$$25^2 = x^2 + (x+5)^2$$

Therefore, $625 = x^2 + x^2 + 10x + 25$

$\Rightarrow$ $2x^2 + 10x - 600 = 0$

$\Rightarrow$ $x^2 + 5x - 300 = 0$

Factorzing by splitting the middle therm.

$x^2 + 20x - 15x - 300 = 0$

$\Rightarrow$ $x(x-20) - 15(x+20) = 0$

$\Rightarrow$ $x = 15, x = -20$

As length cannot be negative,

$\therefore$ $x = 15$

Therefore, AB = 15 cm and BC = 20 cm

$\therefore$ Length of the longer side = 20 cm.

37. (d) – 4

Explanation : $5\tan^2 A - 5\sec^2 A + 1$

$= -5(-\tan^2 A + \sec^2 A) + 1$

$= -5(\sec^2 A - \tan^2 A) + 1$

$= -5(1) + 1$ $(\because \sec^2 A = 1 + \tan^2 A)$

$= -5 + 1 = -4$

38. (b) $\dfrac{\sin A}{1+\cos A}$

Explanation: Here,

$$\frac{1-\cos A}{\sin A} = \frac{1-\cos A}{\sin A} \times \frac{1+\cos A}{1+\cos A}$$

$$= \frac{1-\cos^2 A}{\sin A(1+\cos A)}$$

$$= \frac{\sin^2 A}{\sin A(1+\cos A)}$$

$$= \frac{\sin A}{1+\cos A}$$

39. (c) 1 – P

Explanation : Since, $P + P' = 1$, where P' is the probability of non-happening of event.

$\therefore$ $P' = 1 - P$

40. (c) (0, 0)

Explanation : As per mit point formula,

We know, $x = [2 + (-2)]/2 = 0/2 = 0$

$y = [4 + (-4)]/2 = 0/2 = 0$

Section - C

41. (d) (6, 4)

Explanation: The co-ordinates of point (d) are (6, 4).

42. (a) 1st quadrant

Explanation: As both the values of x and y is positive so the given land lies in 1st quadrant.

43. (b) $\sqrt{13}$ units

Explanation: The co-ordinates of point A is (3, 2) and is (6, 4).

So, the length of side AC is

$$\begin{aligned} AC &= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \\ &= \sqrt{(6-3)^2 + (4-2)^2} \\ &= \sqrt{3^2 + 2^2} \\ &= \sqrt{13} \text{ units} \end{aligned}$$

44. (c) $\left(\frac{9}{2}, 3\right)$

Explanation: The co-ordinates of the mid-point can be given as :

$$x = \frac{x_1 + x_2}{2};\ y = \frac{y_1 + y_2}{2}$$

So the co-ordinates of the mid-point of AC is

$$x = \frac{3+6}{2};\ y = \frac{2+4}{2}$$

$$x = \frac{9}{2};\ y = 3$$

So, the co-ordinates of the mid-point of AC is $\left(\frac{9}{2}, 3\right)$.

45. (c) Right angle triangle

Explanation: We first need to determine the distance of the point AB, BC and AC.

Co-ordinates of point A is (3, 2)

Co-ordinates of point B is (6, 2)

Co-ordinates of point C is (6, 4)

$$AB = \sqrt{(6-3)^2 + (2-2)^2} = 3 \text{ unit}$$

$$BC = \sqrt{(6-6)^2 + (4-2)^2} = 2 \text{ unit}$$

$$AC = \sqrt{(6-3)^2 + (4-2)^2} = \sqrt{13} \text{ unit}$$

Since, $AB^2 + BC^2 = 3^2 + 2^2 = 13 = AC^2$

ABC is a right angle triangle.

46. (a) 18

Explanation: Using the factor tree for the prime factorisation of 90 and and 144, we have

$$90 = 2 \times 32 \times 5$$

and $$144 = 2^4 \times 3^2$$

To find the HCF, we list the common prime factors and their least exponents in 90 and 144 as under.

Common prime factors	Least exponents
2	1
3	2

$\therefore$ HCF $= 2^1 \times 3^2 = 2 \times 9 = 18$

47. (a) 720

Explanation: To find the LCM, we list all prime factors of 90 and 144 and their greatest exponents as follows :

Prime factors of 90 and 144	Greatest exponents
2	4
3	2
5	1

$\therefore$ LCM $= 2^4 \times 3^2 \times 5^1$

$= 16 \times 9 \times 5 = 720$

48. (c) Prime factor

Explanation: Factor tree is used for determining the prime factor.

49. (d) HCF$(a, b) \times$ LCM$(a, b) = ab$

Explanation: The correct option is,

HCF$(a, b) \times$ LCM$(a, b) = ab$

50. (a) co-prime number

Explanation: A number which do not have any factor other than 1 is co-prime number.

Sample Paper 3

Section - A

1. (a) 0

Explanation : P(Impossible event) = 0

2. (c) $\pi r + 2r$

Explanation : Perimeter is the boundary of the figure = $(\pi r + 2r)$.

3. (a) 4 units

Explanation : Given $\pi r^2 = 2\pi r$

$r = 2$ units

$d = 2r = 4$ units

4. (c) $\frac{1}{4}\pi r^2$

Explanation : Area of quadrant $= \frac{1}{4}$ Area of circle $= \frac{1}{4}\pi r^2$.

5. (d) a^2b^2

Explanation : Prime factors of p and q are :

$p = a \times b \times b$

and $q = a \times a \times b$

So, LCM of p and $q = a^2b^2$.

6. (b) p

Explanation : Given polynomial is $f(x) = x^2 - px + q$

here, $a = 1$, $b = -p$ and $c = q$

$$\text{Sum of zeroes } (\alpha + \beta) = \frac{-b}{a}$$

$$\therefore \quad \alpha + \beta = \frac{-(-p)}{1} = p$$

7. (a) 4

Explanation : Given number is

$$\frac{43}{2^4 5^3} = \frac{43 \times 5}{2^4 \times 5^4}$$

$$= \frac{215}{(2 \times 5)^4} = \frac{215}{10^4}$$

$$= 0.0215$$

Thus, the rational number terminates after 4 decimal places.

8. (a) $(-2, 3)$

Explanation : Given polynomial is,

$$f(x) = x^2 - x - 6$$
$$= x^2 - 3x + 2x - 6$$
$$= x(x - 3) + 2(x - 3)$$
$$= (x + 2)(x - 3)$$

9. (b) Degree

Explanation : The highest power of the variable that occurs in the polynomial is called the degree of a polynomial.

10. (c) 14

Explanation : 14, Given, area of quadrant of a circle = 154 cm^2

$$\frac{1}{4}\pi r^2 = 154$$

$$\Rightarrow \quad \frac{1}{4} \times \frac{22}{7} \times r^2 = 154$$

$$\Rightarrow \quad r^2 = \frac{154 \times 4 \times 7}{22} = 196$$

$$\Rightarrow \quad r = 14 \text{ cm}$$

11. (a) $\frac{1}{366}$

Explanation : 1/366, Since year 2000 is a leap year.

Total possible cases = 366

Let E be the vent of getting the birthdays of two friends on same day.

Favourable case = 1

$$P(E) = \frac{1}{366}$$

12. (b) $\frac{1}{2}$

Explanation : Total number of outcomes

= 2 (either Heads or Tails)

Number of outcomes in which head comes = 1

$$P(\text{getting a Head}) = \frac{\text{Number of outcomes in which head comes}}{\text{Total Number of outcomes}}$$

$$= \frac{1}{2}$$

13. (c) 4, – 2

Explanation : Given,

$$2x + 3y = 2 \quad ...(1)$$

$$x - 2y = 8 \quad ...(2)$$

Multiplying equation (2) by 2, then subtracting it from equation (1)

$$2x + 3y = 2$$

$$2x - 4y = 16$$

$$- \quad + \quad -$$

$$7y = -14 \Rightarrow y = -2$$

Put $y = -2$ in equation (2), $x = 8 + 2 \times -2 = 4$

14. (c) $\frac{9}{4}$

Explanation : For equal roots, $D = 0$

$\Rightarrow$ $b^2 - 4ac = 0$

$\Rightarrow$ $(-3)^2 - 4 \times 1 \times k = 0$

$\Rightarrow$ $9 - 4k = 0$

$\Rightarrow$ $k = \frac{9}{4}$

15. (d) $\frac{1}{2}$

Explanation : Given : $x = 3$ is the root of equation $x^2 - 2kx - 6 = 0$

$\therefore$ $(3)^2 - 2k \times 3 - 6 = 0$

$\Rightarrow$ $9 - 6k - 6 = 0$

$\Rightarrow$ $3 - 6k = 0$

$\Rightarrow$ $k = \frac{1}{2}$

16. (a) P^3

Explanation : LCM of P^2 and P^3 is P^3.

17. (b) 2

Explanation : As $x^0 = 1$, so its coefficient is the constant term 2.

18. (b) Parabola.

Explanation : From the graph we can clearly see that parabola cuts the X-axis at two points.

19. (b) 6.4

Explanation : Distance between C(2, – 2) and D(– 2, 3) is

$$D = \sqrt{(-2-2)^2 + (-3+2)^2}$$

$$D = \sqrt{16+25}$$

$$D = \sqrt{41} = 6.4$$

20. (b) Right angled triangle

Explanation : Here, $AC^2 = AB^2 + BC^2$ so it is right angled triangle.

Section - B

21. (a) (1, 3)

Explanation : Using section formula = $\left\{\frac{mx_2+nx_1}{m+n}, \frac{my_2+ny_1}{m+n}\right\} = \left\{\frac{8-3}{5}, \frac{-6+21}{5}\right\} = (1,3)$

22. (a) X-axis.

Explanation: The graph intersects at the x -axis when the zeroes of a polynomial $p(x)$ are precisely the x-coordinates of the points.

23. (d) All of the above

Explanation: The ordinate of a point on the y-axis can be a positive number, negative number or zero.

24. (b) $2\sqrt{3}-3$

Explanation : The given polynomial is $x^2 - 2\sqrt{3}x + 3$

Comparing with $ax^2 + bx + c$,

$$a = 1, b = -2\sqrt{3}, c = 3$$

$$\alpha + \beta - \alpha\beta = \left(-\frac{b}{a}\right) - \left(\frac{c}{a}\right) = \left\{\frac{-\left(-2\sqrt{3}\right)}{1}\right\} - \left(\frac{3}{1}\right) = 2\sqrt{3} - 3$$

25. (c) $2\sqrt{m^2+n^2}$

Explanation : By distance formula

$$= \sqrt{(m+m)^2 + (-n-n)^2}$$

$$= \sqrt{(2m)^2 + (-2n)^2} = \sqrt{4m^2+4n^2} = 2\sqrt{m^2+n^2}$$

26. (d) 12

Explanation : Let $A(0, 4)$, $O(0, 0)$, $B(3, 0)$

$$OA = 4 \text{ unit}$$
$$OB = 3 \text{ unit}$$
$$AB = \sqrt{(0-3)^2 + (4-0)^2} = \sqrt{9+16} = \sqrt{25} = 5 \text{ units}$$

So, perimeter of $\Delta OAB = 3 + 4 + 5 = 12$ m

27. (b) both negative

Explanation : For any quadratic polynomial if coefficient of x^2, x and constant number are positive, then it always has both zeroes negative.

28. (c) 4

Explanation : We know the distance of the point from x-axis is equal to its y-coordinate.

So, The distance of the point $(-3, 4)$ from the x-axis is = 4

29. (b) k

Explanation : Let p be a prime number. If p divides k^2, then k divides k, where a is a positive integer.

30. (c) $f(a) = 0$

Explanation : a is zero of $f(x)$

When we put $x = a$ it satisfies the polynomial

$$f(a) = 0$$

31. (d) 0

Explanation : Probability of an impossible event is zero.

32. (b) $(x - a)$

Explanation : ATQ a is a zero of $f(x) \Rightarrow (x - a)$ is factor of $f(x)$

33. (b) 26

Explanation :

$$2AB = 2\sqrt{\{(-6)-(-1)\}^2 + \{7-(-5)\}^2}$$
$$= 2\sqrt{25+144} = 2 \times 13 = 26$$

34. (d) an irrational number

Explanation : Sum or difference of rational number and irrational number is always irrational.

35. (b) 15 m

Explanation : Let A be the initial position of the man. He goes from A to B and then from B to C such that $AB = 12$ m and $BC = 9$ m and $\angle ABC = 90°$

In right triangle ABC

$$AC^2 = 144 + 81 = 225$$
$$AC = 15 \text{ m}$$

36. (b) b^2

Explanation : Squaring on both sides and then

$$x^2 + y^2 = b^2 \sin^2 \theta + b^2 \cos^2 \theta$$
$$= b^2(\sin^2 \theta + \cos^2 \theta) = b^2$$

37. (d) (3, 0)

Explanation : Let coordinate of required point on x-axis be $P(a, 0)$ and according to question this point is equidistant from the points $A(-4, 0)$ and $B(10, 0)$

$$PA = PB$$
$$PA^2 = PB^2$$
$$(a+4)^2 + (0-0)^2 = (a-10)^2 + (0-0)^2$$
$$a^2 + 16 + 8a = a^2 + 100 - 20a$$
$$16 + 8a = 100 - 20a$$
$$28a = 84$$
$$a = 3$$

So required point be (3, 0).

38. (b) 150

Explanation : We know,

$$\text{HCF } (a, b) \times \text{LCM } (a, b) = a \times b$$
$$12 \times \text{LCM } (a, b) = 1800$$
$$\text{LCM}(a, b) = \frac{1800}{12} = 150$$

39. (b) 5

Explanation : In rectangle ABCD, B(4, 0), C(4, 3) and D(0, 3) have these coordinates. Thus, BD is the diagonal.

Hence, $$\text{length of BD} = \sqrt{(4-0)^2 + (0-3)^2}$$
$$= \sqrt{16+9} = 5$$

So, the correct option is (b).

40. (c) $\tan^2 A$

Explanation : $$\frac{(1+\tan^2 A)}{(1+\cot^2 A)} = \frac{\sec^2 A}{\operatorname{cosec}^2 A} = \frac{\sin^2 A}{\cos^2 A} = \tan^2 A$$

Section - C

41. (c) ΔAPQ and ΔABQ

Explanation: ΔAPQ and ΔABQ will be used to calculate the dimensions of the field.

42. (b) AA

Explanation : Since, $\angle$A is common and PQ || BC.

43. (a) $x^2 - 10x = 0$

Explanation : $$x^2 - 10x = 0$$

Then $$\frac{AP}{AB} = \frac{PQ}{BC}$$

$\Rightarrow$ $$\frac{2x}{x+4} = \frac{x}{7}$$

$\Rightarrow$ $$x^2 + 4x = 14x$$

$\Rightarrow$ $$x^2 - 10x = 0$$

44. (b) 10

Explanation :

Since, $x^2 - 10x = 0$

$x(x - 10) = 0$

$\therefore$ $x = 0$ or $x = 10$

But $x \neq 0$,

$\therefore$ $x = 10$ cm

45. (b) 20 cm

Explanation : Given, $AP = 2x$

$= 2 \times 10$

$= 20$ cm

46. (a) 1

Explanation : We have $\alpha = 30°$ and that of $\beta = 60°$

Thus, $\sin\alpha + \cos\beta = \sin 30° + \cos 60°$

$= \frac{1}{2} + \frac{1}{2} = 1$

47. (b) – 1

Explanation :

Here, $(\sin^2 30° - \sin 0°) = \left(\frac{1}{2}\right)^2 - 0 = \frac{1}{4}$

and $\cos^2 90° - \cos^2 60° = 0 - \frac{1}{4}$

Thus, $\frac{(\sin^2 30° - \sin 0°)}{(\cos^2 90° - \cos^2 60°)} = \frac{\left(\frac{1}{4}\right)}{\left(\frac{1}{4}\right)} = 1$

48. (c) $\frac{7}{4}$

Explanation : Here, $\sin^2 90° + \sin^2 60° = 1^2 + \left(\frac{\sqrt{3}}{2}\right)^2$

$= 1 + \frac{3}{4} = \frac{7}{4}$

49. (a) 1

Explanation : Here, $\sin^2\alpha + \cos^2\beta = \frac{3}{4} + \frac{1}{4} = 1$

50. (d) $\frac{13}{5}$

Explanation : From the table we can find that $\operatorname{cosec}\alpha = \frac{AB}{BC} = \frac{13k}{5k} = \frac{13}{5}$

Sample Paper 4

Section - A

1. (b) – 1

Explanation: Let $p(x) = x^2 - 5x - 6$

$$\text{Sum of roots } (\alpha + \beta) = -\frac{b}{a} = \frac{-(-5)}{1}$$

$\Rightarrow$ $6 + \beta = 5$

$\therefore$ $\beta = -1$

2. (a) x^3y^5

Explanation: Prime factors of a and b are :

$$a = x \times x \times y \times y \times y \times 5$$

and, $b = x \times x \times x \times y \times y$

$\therefore$ LCM of $ab = x^3y^5$

3. (a) 3,

Explanation: The graph touches the X-axis at 3 points. So the number of zeroes is 3.

4. (c) 3024

Explanation: Given, HCF (336, 54) = 6

We know,

$$\text{HCF} \times \text{LCM} = \text{one number} \times \text{other number}$$

$\Rightarrow$ $6 \times \text{LCM} = 336 \times 54$

$\Rightarrow$ $\text{LCM} = \frac{336 \times 54}{6}$

$= 336 \times 9$

$= 3024$

5. (a) $\frac{77}{8}$

Explanation: Given,

$$\text{Circumference of circle} = 2\pi r = 22 \text{ cm}$$

or $r = \frac{11}{\pi}$ cm

$\Rightarrow$ $\text{Area of the quadrant} = \frac{\pi r^2}{4} = \frac{\pi}{4} \times \frac{11}{\pi} \times \frac{11}{\pi}$

$= \frac{11 \times 11 \times 7}{4 \times 22}$

$= \frac{77}{8} \text{ cm}^2$

6. (c) $\frac{1}{6}$

Explanation: 1 is neither prime nor composite number

$\therefore$ Required probability $= \frac{1}{6}$

7. (a) 33 cm

Explanation: According to the question,

Circumference of circle = Perimeter of square

So, $2\pi r = 4 \times \text{Side}$

$$2 \times \frac{22}{7} \times 21 = 4 \times \text{Side}$$

$\Rightarrow$ $$\text{Side} = \frac{2 \times 22 \times 3}{4} = 33 \text{ cm}$$

8. (d) 6

Explanation: Let the common difference of an A.P. be *d*.

Then,

$$a_{10} = a_1 + 9 \times d$$
$$a_8 = a_1 + 7 \times d$$

Solving the two equation,

$$a_{10} - a_8 = (a_1 + 9 \times d) - (a_1 + 7 \times d)$$
$$a_{10} - a_8 = a_1 + 9d - a_1 - 7d$$
$$a_{10} - a_8 = 2d$$

Substituting $2d = 12, d = 6$

9. (b) 7 cm

Explanation: Let the radius be *r* cm.

Thus, circumference $= 2\pi r$ cm

Now, $2\pi r - r = 37$

$\Rightarrow$ $$r\left(\frac{44}{7} - 1\right) = 37$$

$\Rightarrow$ $$r\left(\frac{44 - 7}{7}\right) = 37$$

$\Rightarrow$ $$r = \frac{7 \times 37}{37} = 7 \text{ cm}$$

10. (d) 0.95

Explanation: Given $P(E) = 0.05$

Since, $P(\overline{E}) = 1 - P(E) = 1 - 0.05 = 0.95$

11. (b) 13000 km

Explanation: Distance $= \sqrt{(-6-6)^2 + (-1-4)^2}$

$$= \sqrt{(-12)^2 + (-5)^2}$$
$$= 13 \times 1000$$
$$= 13000 \text{ km.}$$

12. (d) Parabola.

Explanation: The wire will bent in the Parabola shape.

13. (b) 4/3

Explanation:

$$p(x) = (k-1)x^2 + kx + 1$$
$$p(-3) = 0$$
$$(k-1)(-3)^2 + k(-3) + 1 = 0$$
$$9(k-1) - 3k + 1 = 0$$
$$9k - 9 - 3k + 1 = 0$$
$$6k - 8 = 0$$
$$k = \frac{8}{6}$$
$$k = 4/3$$

14. (b) 2

Explanation: Prime factors

$$65 = 5 \times 13$$
$$117 = 3 \times 3 \times 13$$
$$\therefore \quad \text{HCF} = 13$$

Now, A.T.Q

$$13 = 65\text{ m} - 117$$
$$65\,m = 130$$
$$m = 2$$

15. (a) Rational number

Explanation: Given,

$$\frac{2\sqrt{45} + 3\sqrt{20}}{2\sqrt{5}} = \frac{6\sqrt{5} + 6\sqrt{5}}{2\sqrt{5}}$$
$$= \frac{12\sqrt{5}}{2\sqrt{5}} = 6 \qquad \text{(a rational number)}$$

Thus, on simplification $\frac{2\sqrt{45} + 3\sqrt{20}}{2\sqrt{5}}$ gives a rational number.

16. (a) no real zeroes

Explanation: A quadratic equation has at most two zeroes.

17. (c) 4

Explanation:

$$x + 2y = 2 \qquad \text{...(i)}$$
$$x - 3y = 7 \qquad \text{...(ii)}$$

From equation (i),

$$x = 2 - 2y \qquad \text{...(iii)}$$

Put in equation (ii)

$$2 - 2y - 3y = 7$$
$$2 - 5y = 7$$
$$-5y = 7$$
$$y = -1$$

Put the value of y in equation (iii),

$$x = 2 - 2(-1)$$
$$= 4$$

18. (a) – 63

Explanation: Since $A(x, 2)$, $B(-3, -4)$ and $C(7, -5)$ are collinear.

$$\therefore \quad x_1(y_2 - y_3) + x_2(y_3 - y_1) + x_3(y_1 - y_2) = 0$$

$$\Rightarrow \quad x[-4 - (-5)] + (-3)[(-5) - 2] + 7[2 - (-4)] = 0$$

$$\Rightarrow \quad x + (-3)[-7] + 7[6] = 0$$

$$\Rightarrow \quad x + 21 + 42 = 0$$

$$\Rightarrow \quad x = -63$$

So the correct option is (a).

19. (a) 54

Explanation: Product of two numbers = LCM × HCF

Product of two numbers = 2 × 27 = 54

20. (d)

Explanation: Given, $A(0, 4)$, $B(0, 0)$ and $C(3, 0)$

Thus, Perimeter $= AB + BC + CA$

$$= [\sqrt{(0-0)^2 + (0-4)^2} + \sqrt{(3-0)^2 - (0-0)^2} + \sqrt{(3-0)^2 + (4-0)^2}]$$

$$= [\sqrt{16} + \sqrt{9} + \sqrt{9+16}]$$

$$= (4 + 3 + 5) \text{ units} = 12 \text{ units}$$

Section - B

21. (a) 1

Explanation: Using mid-point formula,

$$\because \quad \bar{x} = \frac{x_1 + x_2}{2} \text{ and } \bar{y} = \frac{y_1 + y_2}{2}$$

$$\bar{x} = \frac{0}{2} = 0, \bar{y} = \frac{2}{2} = 1$$

22. (a) $a = c$

Explanation: Let $\alpha, \frac{1}{\alpha}$ are zeroes of $ax + bx + c = 0$

We know product of zeroes $= \frac{c}{a}$

$$\alpha \times \frac{1}{\alpha} = \frac{c}{a}$$

$$\Rightarrow \quad 1 = \frac{c}{a}$$

$$\Rightarrow \quad a = c$$

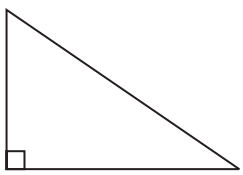
23. (b) 2

Explanation: In ΔABC, using Pythagoras theorem,

$$AC^2 = AB^2 + BC^2$$

$$\Rightarrow \quad (x + 3)^2 = (3)^2 + (x + 2)^2$$

$$\Rightarrow \quad x^2 + 9 + 6x = 9 + x^2 + 4 + 4x$$



$\Rightarrow \quad 2x = 4$

$\Rightarrow \quad x = 2$

24. (c) 7.5

Explanation: Given, $A = (1, 3)$; $B = (-1, 0)$ and $C = (4, 0)$

Thus, Area of the $\Delta ABC = \frac{1}{2}[1(0-0) - 1(0-3) + 4(3-0)]$

$= \frac{1}{2}[3 + 12] = 7.5$ sq. units

25. (a) $\frac{1}{13}$

Explanation: Total number of cards = 52

Favorable cards = 4

P(getting a king) $= \frac{4}{52} = \frac{1}{13}$

26. (c) Both (a) and (b)

Explanation: If a be any composite number then $\sqrt{a}$ is always rational and irrational.

27. (a) 1/5

Explanation: Total numbers = 15

Let the event of getting a number multiple of 4 be E.

Then, the favourable outcomes are 4, 8, 12.

Hence, number of favourable outcomes = 3

$\therefore \quad P(E) = \frac{3}{15} = \frac{1}{5}$

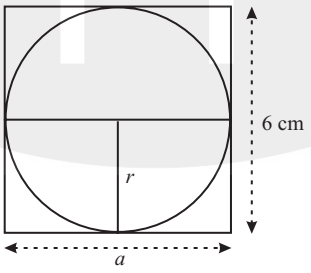
28. (b) relatively prime or co-prime

Explanation: We know if two numbers are relatively prime or co-prime then their highest common factor 1.

29. (c) 9π cm^2

Explanation: Side of given a square, $a = 6$ cm.

Radius of circle that can be inscribed inside the square, $r = \frac{a}{2} = \frac{6}{2} = 3$ cm



Area of the circle inscribed $= \pi r^2 = \pi \times 3^2 = 9\pi$ cm^2

Thus, the area of the circle is 9π cm^2.

30. (b) 9

Explanation: -4 is a zero of polynomial $x^2 - x - (2 + 2k)$

$(-4)^2 - (-4) - (2 + 2k) = 0$

$16 + 4 - 2 - 2k = 0$

$$18 - 2k = 0$$
$$2k = 18$$
$$k = 9$$

31. (c) $\frac{16}{5}$

Explanation: Given, $A(2, 6)$, $C(k, 4)$ and $B(5, 1)$ and $AC : BC = 2 : 3$

Thus, $$k = \frac{3\times2+2\times5}{2+3} = \frac{6+10}{5} = \frac{16}{5}$$

32. (c) 4

Explanation: The given point is $(-3, 4)$.

y represent the distance of point from x-axis.

Thus, the distance = 4 units

33. (c) $\frac{1}{4}$

Explanation: There are 25 prime numbers between 1 to 100

$$\text{Probability of prime number} = \frac{25}{100} = \frac{1}{4}$$

34. (a) 1

Explanation: $$3^{x-y} = 9$$
$$\Rightarrow \quad 3^{x-y} = 3^2$$
$$\Rightarrow \quad x - y = 2$$
$$3^{x+y} = 81$$
$$\Rightarrow \quad 3^{x+y} = 3^4$$
$$\Rightarrow \quad x + y = 4$$

On solving equation, we get $y = 1$

35. (c) -4

Explanation: $$PQ = QB$$
$$\Rightarrow \quad \sqrt{(5-3)^2+(-3-y)^2} = \sqrt{(3-1)^2+(y+5)^2}$$
$$\Rightarrow \quad (2)^2 + (3 + y)^2 = (2)^2 + (y + 5)^2$$
$$\Rightarrow \quad 4 + 9 + 6y + y^2 = 4 + 25 + 10y + y^2$$
$$\Rightarrow \quad 6y + 13 = 29 + 10y$$
$$\Rightarrow \quad 4y = -16$$
$$\Rightarrow \quad y = -4$$

So, the correct option is (c).

36. (b) 30°

Explanation: $$6 + 4\sin\theta = 8$$
$$4\sin\theta = 2$$
$$\sin\theta = \frac{1}{2}$$
$$\theta = 30°$$

37. (a) (– 6, 7).

Explanation: Given the coordinates of the centre = (– 2, 5) and one end = (2, 3).

Thus, the centre is the mid-point of the two end points.

Now, let the coordinates of the other end be (x, y).

So, $$-2 = \frac{2+x}{2} \text{ and } 5 = \frac{3+y}{2}$$

$\Rightarrow$ $$-4 = 2 + x \text{ and } 10 = 3 + y$$

$\Rightarrow$ $$x = -6 \text{ and } y = 7$$

Hence, the coordinates are (– 6, 7).

38. (b) parallel to y-axis at a distance 3 units from y-axis

Explanation: $x - 3 = 0 \Rightarrow x = 3$ it is a line parallel to y-axis at a distance 3 units from y-axis.

39. (b) (3, 5)

Explanation: Given, $A = (1, 3)$; $B = (4, 6)$ and $AP : PB = 2 : 1$

Let the co-ordinates of point P be (x, y).

Thus $$x = \frac{2\times4+1\times1}{2+1}$$

and $$y = \frac{2\times6+1\times3}{2+1}$$

$\Rightarrow$ $$x = \frac{8+1}{3}$$

and $$y = \frac{12+3}{3}$$

$\Rightarrow$ $$x = 3$$

and $$y = 5$$

$\Rightarrow$ $$(x, y) = (3, 5)$$

So, the correct option is (b).

40. (b) no solution

Explanation: The pair of linear equations is said to be inconsistent if they have no solution.

Section - C

41. (a) 4/5

Explanation:

$$a = 3$$
$$b = 4$$
$$a^2 + b^2 = c^2$$
$$3^2 + 4^2 = c^2$$
$$9 + 16 = c^2$$
$$c^2 = 25$$

or $$c = 5$$
$$\cos\alpha = b/c = 4/5$$

42. (d) 3/4

Explanation: $a = 3$, $b = 4$

Since, $\tan\alpha = \frac{a}{b}$

Therefore the answer is $\tan\alpha = 3/4$

43. (c) 7/5

Explanation: $a = 3$, $b = 4$

As $\sin\alpha = \frac{a}{b} = \frac{3}{5}$ and $\cos\beta = \frac{b}{c} = \frac{4}{5}$

$$\sin\alpha + \cos\beta = \frac{3}{5} + \frac{4}{5} = 7/5$$

44. (a) $\frac{25}{12}$

Explanation: $\tan\alpha + \tan\beta = \frac{3}{4} + \frac{4}{3} = \frac{25}{12}$

45. (c) 3/5

Explanation: If the length a and b increase to twice of their original values, then the lengths a and b are respectively given as :

$a = 6$ cm, $b = 8$ cm

Since $a^2 + b^2 = c^2$

Therefore, $6^2 + 8^2 = 100 = c^2$

This implies $c = \sqrt{100} = 10$

Thus, $\cos\alpha + \cos\beta = \frac{a}{c} + \frac{b}{c}$

$$= \frac{a}{c} + \frac{a}{c} = \frac{6}{10} + \frac{6}{10}$$

$$= 3/5$$

46. (a) 12 cm

Explanation: In ΔKBQ, $\Delta KBQ = 90°$

Δ By pythagoras theorem,

$$KQ^2 = KB^2 + BQ^2$$

$$20^2 = 16^2 + BQ^2$$

$$BQ = \sqrt{20^2 - 16^2}$$

$$= \sqrt{400 - 256}$$

$$= \sqrt{144} = 12 \text{ cm}$$

47. (a) 28 cm

Explanation: Height of spotlight PB $= PQ + QB$

$= 16 + 12$

$= 28$ cm

48. (a) 21 cm

Explanation: In ΔHBP, $\Delta HBP = 90°$

By pythagoras theorem

$$PB^2 + HB^2 = PH^2$$

$$\Rightarrow \quad (16 + 12)^2 + HB^2 = 35^2$$

$$\Rightarrow \quad HB^2 = 35^2 - 28^2$$

$$= 1225 - 784$$

$$= 441$$

$$\Rightarrow \quad HB = 21 \text{ cm}$$

49. (a) 5 cm

Explanation: Distance, *i.e.*, $HK = HB - KB$

$$= 21 - 16 = 5 \text{ cm}$$

50. (d) Not similar

Explanation: The Δs KBQ and HBP are similar,because their corresponding sides are not proportional.

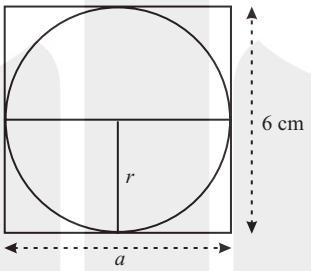
Sample Paper 5

Section - A

1. (c) 9π

Explanation: Side of given square, $a = 6$ cm.

Radius of circle that can be inscribed inside the square, $r = \frac{a}{2} = \frac{6}{2} = 3$ cm



Area of the circle inscribed $= \pi r^2 = \pi \times 3^2 = 9\pi \text{ cm}^2$

Thus, the area of the circle is $9\pi \text{ cm}^2$.

2. (a) 2

Explanation:

$$20 = 2^2 \times 5$$

$$12 = 2^2 \times 3$$

$$16 = 2^4$$

$$2 = 2^1$$

$$\therefore \quad HCF = 2$$

3. (a) $x^2 - x - 12$

Explanation: Sum of zeroes $= -3 + 4 = 1$

Product of zeroes $= (-3)(4) = -12$

$\therefore$ Required polynomial $= x^2 -$ (sum of zeroes) + product of zeroes

$= x^2 - 1x + (-12)$

$= x^2 - x - 12$

4. (b) 1

Explanation: The probability of an event that is certain to happen is 1. Such an event is called sure or certain event.

5. (a) 2×7^2

Explanation: $98 = 2 \times 7 \times 7$

$\Rightarrow$ $98 = 2 \times 7^2$

6. (a) 2,

Explanation: We have,

$$f(x) = 2x^2 + 2ax + 5x + 10$$

Since $(x + a)$ is a factor of $f(x)$

Then put $x + a = 0$

$\Rightarrow$ $x = -a$

Put $x = -a$ in $f(x)$ and put $f(-a) = 0$

$\Rightarrow$ $2(-a)^2 + 2a(-a) + 5(-a) + 10 = 0$

$\Rightarrow$ $2a^2 - 2a^2 - 5a + 10 = 0$

$\Rightarrow$ $5a = 10$

$\Rightarrow$ $a = 2$

7. (b) $C = \pi d$

Explanation:

$C = \pi d$ where C is circumference and d is diameter of circle.

8. (b) $\frac{3}{4}$

Explanation: Sample spce = {(H, H), (H, T), (T, H), (T, T)}

Favourable case = {(H, H), (H, T), (T, H)}

$$P(E) = \frac{3}{4}$$

9. (c) 9

Explanation: Given polynomial is,

$$f(x) = x^2 - x - (2k + 2)$$

-4 is a zero of $f(x)$

$\therefore$ $f(-4) = 0$

$\Rightarrow$ $(-4)^2 - (-4) - (2k + 2) = 0$

$\Rightarrow$ $16 + 4 - 2k - 2 = 0$

$\Rightarrow$ $18 - 2k = 0$

$\Rightarrow$ $2k = 18$

$\Rightarrow$ $k = 9$

10. (a) (a, b)

Explanation: Coordinates of mid-point $= \left(\frac{2a+0}{2}, \frac{0+2b}{2}\right)$

$= (a, b)$

11. (c) $4\sqrt{2}$ cm

Explanation:

Given, $\angle C = 90°$ and AC = 4 cm, AB = ?

ΔABC is an isosceles triangle so,

$$BC = AC = 4 \text{ cm}$$

On applying Pythagoras theorem, we have

$$AB^2 = AC^2 + BC^2$$

$$\Rightarrow \quad AB^2 = AC^2 + AC^2 \quad (\because BC = AC)$$

$$= 4^2 + 4^2$$

$$= 16 + 16 = 32$$

$$\Rightarrow \quad AB = \sqrt{32}$$

$$\therefore \quad AB = 4\sqrt{2} \text{ cm}$$

12. (b) $\frac{2}{3}$

Explanation: Let $k : 1$ is the required ratio.

$$\therefore \quad \frac{3}{5} = \frac{k \times (-3) + 1 \times 3}{k+1} \quad \left[\because x = \frac{m_1x_2 + m_2x_1}{m_1 + m_2}\right]$$

$$\Rightarrow \quad \frac{3}{5} = \frac{-3k+3}{k+1}$$

$$\Rightarrow \quad 3(k+1) = 5(-3k+3)$$

$$\Rightarrow \quad 3k + 3 = -15k + 15$$

$$\Rightarrow \quad 18k = 12$$

$$\Rightarrow \quad k = \frac{12}{18} = \frac{2}{3}$$

Hence, the required ratio is 2 : 3.

13. (a) 1.41 – 1.73

Explanation:

As

$$\sqrt{2} = 1.414...$$

$$\sqrt{3} = 1.732...$$

So, a rational number between $\sqrt{2}$ and $\sqrt{3}$ is 1.5 or we can take any number between 1.414 and 1.732.

14. (a) $\frac{4}{9}$

Explanation:

$$P(B) = \frac{\text{Number of black balls}}{\text{Total number of balls}}$$

$$= \frac{4}{5+4}$$

$$= \frac{4}{9}$$

15. (c) 4 : 5

Explanation: Given, $\frac{C_1}{C_2} = \frac{4}{5}$

$\Rightarrow \frac{2\pi r_1}{2\pi r_2} = \frac{4}{5}$

$\Rightarrow \frac{r_1}{r_2} = \frac{4}{5}$

$r_1 : r_2 = 4 : 5$

16. (a) Non terminating and non repeating

Explanation: $\frac{136}{1400} = \frac{2^3 \times 17}{2^3 \times 5^2 \times 7}$

$= \frac{17}{5^2 \times 7}$

Since,the denominator not in the form of $2^m \times 5^n$.

So, it is non terminating and non repeating.

17. (b) 150 m

Explanation: Since, scale factor is $\frac{1}{100}$

Then, $\frac{1}{100} = \frac{150}{x}$

$\Rightarrow x = 15000$ cm

$= 150$ m

18. (b) 2

Explanation: Let $P(x) = 7x - 3x^2 + 7$

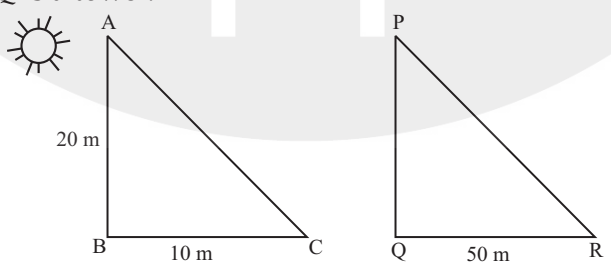
$P(1) = 7(1) - 3(1)^2 + 7 = 7 - 3 + 7 = 11$

$P(2) = 7(2) - (3)(2)^2 + 7 = 14 - 12 + 7 = 9$

difference between the values of the polynomial = 11 – 9 = 2

19. (b) 100 m

Explanation: Here, PQ is a tower.



Then, $\frac{AB}{BC} = \frac{PQ}{QR}$

$\Rightarrow \frac{20}{10} = \frac{PQ}{50}$

$\Rightarrow PQ = 100$ m

20. (a) $am \neq lb$

Explanation: For unique solution $\frac{a}{l} \neq \frac{b}{m}$

$\Rightarrow$ $am \neq lb$

Section - B

21. (c) If the ratio of areas of two similar Δs is equal to the ratio of the sides.

Explanation: Since, ratio of area of 2 similar Δs is equal to ratio of square of their sides.

22. (a) 10

Explanation: For inconsistent $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$

$$\frac{1}{5} = \frac{2}{k} \neq \frac{-3}{7}$$

$\Rightarrow$ $k = 10$

23. (b) Similar but not congurent

Explanation: Since, their angles are equal and sides are proportional.

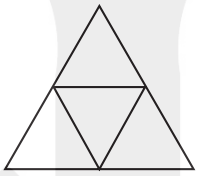
24. (b) 4

Explanation: $3(6) + k = 22$

$\Rightarrow$ $k = 4$

25. (b) Similar to the original triangle

Explanation: Since, their sides will be proportional.



26. (a) 1 : 10

Explanation: Prime factors $52 = 2^2 \times 13$

$130 = 2 \times 5 \times 13$

HCF(52, 130) $= 2 \times 13 = 56$

LCM(52, 130) $= 2^2 \times 5 \times 13 = 260$

Ratio of HCF and LCM is 26 : 260 = 1 : 10

27. (a) At most n

Explanation: The number of zeroes which a polynomial of degree n can have is at most n.

28. (a) 5.4 cm

Explanation: We know $\frac{\text{perimerter of I } \Delta}{\text{perimerter of II } \Delta} = \frac{\text{one side of I } \Delta}{\text{corresponding side of II } \Delta}$

$$\frac{25}{15} = \frac{9}{\text{corresponding side of II } \Delta}$$

$\Rightarrow$ Corresponding side of II $\Delta = \frac{15 \times 9}{25} = \frac{135}{25} = 5.4$

29. (c) trigonometric identities

Explanation: Ratios of sides of a right triangle with respect to its acute angles are known as trigonometric identities.

30. (d) 2, 5

Explanation: Given rational number is terminating so the Prime factors of the denominator of a rational number with the decimal expansion 25.2354 are 2, 5.

31. (a) are parallel

Explanation: A system of two simultaneous linear equations in two variables is inconsistent, if their graphs are parallel.

32. (a) – 8

Explanation: Given, $P\left(\frac{a}{2}, 4\right)$ is the mid-point of the line segment joining the points $A(-6, 5)$ and $B(-2, 3)$.

Thus,
$$\frac{a}{2} = \frac{-6-2}{2}$$
$$= \frac{-8}{2}$$
$$= -4$$
or
$$a = -8$$
So, the correct option is (a).

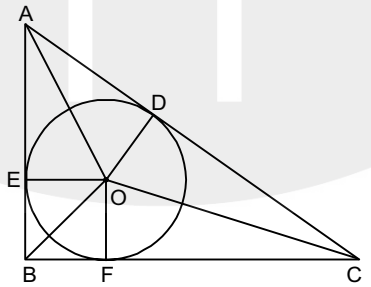
33. (c) $\frac{\sqrt{b^2-a^2}}{b}$

Explanation: We know, $\cos\theta = \sqrt{1-\sin^2\theta} = \sqrt{1-\frac{a^2}{b^2}} = \sqrt{\frac{b^2-a^2}{b^2}} = \frac{\sqrt{b^2-a^2}}{b}$

34. (c) 2

Explanation: Given, $BC = 12$ cm and $AB = 5$ cm

Let $EO = DO = FO = r$ cm



$AC^2 = AB^2 + BC^2$ [By Pythagoras Theorem]

$\Rightarrow$ $AC^2 = (5)^2 + (12)^2$

$\Rightarrow$ $AC^2 = 25 + 144$

$\Rightarrow$ $AC^2 = 169$

$\Rightarrow$ $AC^2 = (13)^2$

$\Rightarrow$ $AC = 13$

Now, $\text{Area of } \Delta ABC = \frac{1}{2} \times 12 \times 5 = 30 \text{ cm}^2$

But $\text{Area of } \Delta ABC = \text{Area of } \Delta BOC + \text{Area of } \Delta COA + \text{Area of } \Delta BOA$

$\Rightarrow \quad 30 = \frac{1}{2} \times 12 \times r + \frac{1}{2} \times 13 \times r + \frac{1}{2} \times 5 \times r$

$\Rightarrow \quad \frac{r}{2}[12 + 13 + 5] = 30$

$\Rightarrow \quad \frac{r}{2}[30] = 30$

$\Rightarrow \quad r = 2 \text{ cm}$

So, the correct option is (c).

35. (c) is not terminating and non-recurring.

Explanation: π is an irrational number. Thus its decimal expansion is not terminating and non-recurring.

36. (d) 3

Explanation: Add both equation we get

$74x + 74y = 222$ divided by 74

we get, $x + y = 3$

37. (b) 26

Explanation: Given,

$A = (-6, 7)$

and $B = (-1, -5)$

Thus, $AB = \sqrt{(-6+1)^2 + (7+5)^2}$

$= \sqrt{(-5)^2 + (12)^2} = \sqrt{25+144}$

$= \sqrt{169} = 13$

Thus, $2AB = 26$ units

So the correct option is (b).

38. (b) $k \neq -6$

Explanation: For unique solution $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$

$\frac{k}{3} \neq \frac{1}{3}$

$\Rightarrow \quad k \neq -6$

39. (d) 17/16

Explanation: Probability of an event cannot be less than zero and more than one.

40. (a) 3.5 km/h

Explanation: Let speed of boat = x km/h and speed of stream y km/h

$x + y = 15$ ...(i)

$x - y = 8$ ...(ii)

On solving equations (i) and (ii) we get $y = 3.5$ Km/hr

Section - C

41. (d) 6 m

Explanation: We have

$$AB = BC = 6\sqrt{2}\text{ m and } AC = 12\text{ m}$$

D is mid point of AC.

$$AD = DC = 6\text{ m}$$

Now, $AB^2 = BD^2 + AD^2$

($\because$ ΔABD is a right triangle)

$$BD^2 = (6\sqrt{2})^2 - 6^2 = 72 - 36 = 36$$

$$BD = 6\text{ m} \quad ...(1)$$

42. (c) 45°

Explanation: In ΔABD,

$$\sin A = \frac{BD}{AB} = \frac{6}{6\sqrt{2}} = \frac{1}{\sqrt{2}} \quad \text{[Using (1)]}$$

$$\sin A = \sin 45°$$

$$A = 45°.$$

43. (c) 45°

Explanation: In ΔBDC,

$$\tan C = \frac{BD}{DC} = \frac{6}{6} \quad \text{[Using (1)]}$$

$$\tan C = 1 = \tan 45°$$

$$C = 45°.$$

44. (d) $\sqrt{2}$

Explanation: $\sin A = \frac{1}{\sqrt{2}}$, $\cos C = \cos 45° = \frac{1}{\sqrt{2}}$

$$\sin A + \cos C = \frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}} = \frac{2}{\sqrt{2}} = \sqrt{2}$$

45. (c) 2

Explanation: $\tan C = 1$, $\tan A = \tan 45° = 1$

$\Rightarrow$ $\tan^2 C + \tan^2 A = 1 + 1 = 2.$

46. (d) 590, 410

Explanation: Let, α type sold be x

and β type sold be y.

Then, $x + y = 1000$ ...(i)

and $10x + 12y = 10{,}820$ ...(ii)

Now, multiply equation (i) by 10 and subtract the both, we get

$$\begin{aligned} 10x + 10y &= 10000 \\ 10x + 12y &= 10{,}820 \\ - \quad - \quad & - \\ \hline -2y &= -820 \\ y &= 410 \end{aligned}$$

and $x = 1000 - 410 = 590$

47. (d) ₹ 11,000

Explanation: $10 \times 500 + 12 \times 500 = 5000 + 6000$

$= 11,000$

48. (d) 1650, 850

Explanation:

$$x + y = 2500 \quad ...(i)$$

$$11x + 13y = 29,200 \quad ...(ii)$$

Multiply (i) by 11 and subtract

$$\begin{aligned} 11x + 11y &= 27500 \\ 11x + 13y &= 29200 \\ - \quad - \quad - \quad & \\ \hline -2y &= -1700 \\ y &= 850 \end{aligned}$$

Then, $x = 2500 - 850 = 1650$

49. (c) 179.66%

Explanation: In July sale of $\alpha = 1650$

In June sale of $\alpha = 590$

Then $\% \text{ increase} = \dfrac{1650 - 590}{590} \times 100$

$= \sin\theta = \dfrac{a}{b} = 179.66\%$

50. (b) ₹ 25,200

Explanation: $11 \times 1050 + 13 \times 1050 = 11550 + 13650$

$= ₹\ 25,200$

Sample Paper 6

Section - A

1. (c) 4

Explanation: Prime factorisation of $52 = 2 \times 2 \times 13$

Prime factorisation of $320 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 5$

Then, HCF $= 2 \times 2 = 4$

2. (a) 2

Explanation: Since A and B lie on the circle having centre O.

$$OA = OB \quad \text{(Radii of the same circle)}$$

$$\Rightarrow \sqrt{(4-2)^2 + (3-3)^2} = \sqrt{(x-2)^2 + (5-3)^2}$$

$$\Rightarrow \sqrt{(2)^2 + (0)^2} = \sqrt{(x-2)^2 + 4}$$

$$\Rightarrow 4 = (x-2)^2 + 4$$

$$\Rightarrow (x-2)^2 = 0$$

$$x = 2 \quad \textbf{Ans.}$$

3. (c) $\frac{\theta}{360°} \times \pi r^2$

Explanation: Area of sector making an angle θ at centre = $\frac{\theta}{360} \times \pi r^2$, where r is the radius of circle.

4. (d) $\frac{23}{4}$

Explanation: $\left(\frac{\sqrt{3}}{2}\right)^2 + (1)^2 + 2 \times 2 = \frac{3}{4} + 1 + 4 = \frac{23}{4}$ **Ans.**

5. (a) $\frac{17}{8}$

Explanation: Since, $\cot A = \frac{8}{15}$

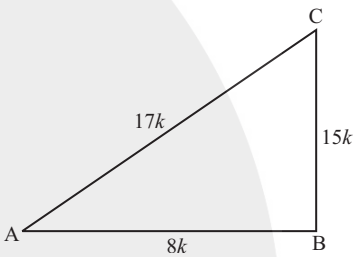
Then, $B = 8k, P = 15k$

$\therefore$ $H = \sqrt{(8k)^2 + (15k)^2}$

$= \sqrt{64k^2 + 225k^2}$

$= \sqrt{289k^2}$

$= 17k$



Then, $\sec A = \frac{H}{B} = \frac{17k}{8k} = \frac{17}{8}$ **Ans.**

6. (c) ab

= == **Explanation:** $x = a$ is the solution of the quadratic equation $x^2 - x(a + b) + k = 0$. So it will satisfy the given equation.

$\therefore$ $a^2 - a(a + b) + k = 0$

$\Rightarrow$ $a^2 - a^2 - ab + k = 0$

$\Rightarrow$ $k = ab$ **Ans.**

7. (b) $\frac{9}{4}$

Explanation: Here root are α and α

$\therefore$ $\alpha + \alpha = 3$

$2\alpha = 3$

$2\alpha = 3$ or $\alpha = \frac{3}{2}$

and $\alpha^2 = \frac{k}{1}$

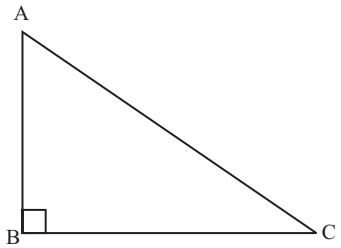
$\therefore$ $\left(\frac{3}{2}\right)^2 = k \Rightarrow k = \frac{9}{4}$

8. (b) 0.005

Explanation: P (losing) = 1 – 0.995 = 0.005

9. (d) $AC^2 = 2AB^2$

Explanation: Given, in ΔABC, $AB = BC$ [as triangle is isosceles]



Now, in ΔABC, by Pythagoras theorem,

$$AC^2 = AB^2 + BC^2$$

$$AC^2 = AB^2 + AB^2 \quad [\because AB = BC]$$

$$AC^2 = 2AB^2$$

Hence Proved.

10. (c) 1

Explanation: $\dfrac{\sec 30°}{\text{cosec } 60°} = \dfrac{2/\sqrt{3}}{2/\sqrt{3}} = 1$

11. (d) 3, 2

Explanation: Given equation,

$$x^2 - 5x + 6 = 0$$

$$\Rightarrow \quad x^2 - 3x - 2x + 6 = 0$$

$$\Rightarrow \quad x(x-3) - 2(x-3) = 0$$

$$\Rightarrow \quad (x-3)(x-2) = 0$$

$$\Rightarrow \quad x = 3, 2$$

Ans.

12. (b) $\sqrt{3}a$

Explanation: Altitude in equilateral triangle, is also the median.

$\therefore$ In ΔADB, by Pythagoras theorem,

$$AB^2 = AD^2 + BD^2$$

$$AD^2 = (2a)^2 - (a)^2$$

$$= 4a - a^2 = 3a^2$$

$$AD = \sqrt{3a} \text{ cm}$$

Ans.

13. (c) $\dfrac{6}{5}$

Explanation: In right angled ΔABC, using Pythagoras theorem

$$AC^2 = AB^2 + BC^2$$

$$= (6)^2 + (8)^2$$

$$= 36 + 64 = 100$$

$$AC = \sqrt{100} = 10 \text{ cm}$$

$$\therefore \quad \sin A + \cos C = \frac{6}{10} + \frac{6}{10} = \frac{12}{10} = \frac{6}{5}$$

Ans.

14. (a) 660 cm

Explanation: Given radius = 105 cm

We know that, circumference of circle is $C = 2\pi R$

$$C = 2 \times \frac{22}{7} \times 105$$

$$C = 44 \times 15$$

$$C = 660 \text{ cm}$$

Thus, the circumference of the circle is 660 cm.

15. (a) 1

Explanation: P(certain event) = 1.

16. (b) 150

Explanation: HCF × LCM = Product of two number

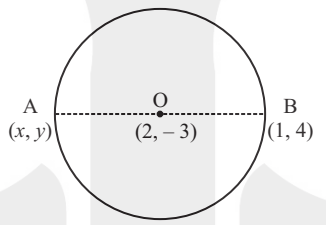
$$12 \times \text{LCM} = 1800$$

$$\text{LCM} = \frac{1800}{12} = 150$$ **Ans.**

17. (b) (3, – 10)

Explanation: Let the coordinates of point A be (x, y) and point O (2, – 3) be point the centre, then

by mid-point formula.



$$\frac{x+1}{2} = 2 \quad \text{and} \quad \frac{y+4}{2} = -3$$

or $x = 4 - 1$ and $y = -6 - 4$

$x = 3$ $\quad y = -10$

The coordinates of point A are (3, – 10). **Ans.**

18. (c) 0

Explanation: P(impossible event) = 0. **Ans.**

19. (a) 1

Explanation: $\sin^2 45° + \cos^2 45° = \left(\frac{1}{\sqrt{2}}\right)^2 + \left(\frac{1}{\sqrt{2}}\right) = \frac{1}{2} + \frac{1}{2} = 1$

20. (c) 'a' is a non-zero real number and B and C are any real numbers

Explanation: A polynomial in the form of $ax^2 + bx + c$ where a, b and c are real numbers and $a \neq 0$ is known as a quadratic polynomial,. So, option (c) is correct.

Section - B

21. (d) D = 0

Explanation: Given that, the zeroes of the polynomial $ax^2 + bx + c$, $c \neq 0$ are equal. If the roots are equal, then the value of discriminant has to be zero.

$\therefore \quad D = B^2 - 4AC = 0$

So, option (d) is correct.

22. (a) $\frac{17}{16}$

Explanation: Probability of event cannot be $\frac{17}{16}$ as it is greater than 1.

23. (d) 9π

Explanation: Area difference $= \pi(5)^2 - \pi(4)^2$

$= 25\pi - 16\pi$

$= 9\pi \text{ cm}^2$

24. (b) – 10

Explanation: Here, $P(x) = x^2 + 3x + k$

If $x = 2$, then

$P(2) = 2^2 + 3 \times 2 + k = 0$

$\Rightarrow \quad k = -10$

25. (c) 45°

Explanation: Here, $\sin\theta - \cos\theta = 0$

$\Rightarrow \quad \sin\theta = \cos\theta$

$\Rightarrow \quad \frac{\sin\theta}{\cos\theta} = 1$

$\Rightarrow \quad \tan\theta = 1$

$\Rightarrow \quad \tan\theta = \tan 45°$

$\theta = 45°$

26. (a) 3

Explanation: Since, graph cuts the X-axis at 3-points.

27. (b) $\frac{1}{4}$

Explanation: Given that, a and $\frac{1}{\alpha}$ are the zeroes of the quadratic polynomial $2x^2 - x + 8k$

$\therefore \quad \text{Product of zeroes} = \frac{\text{Constant term}}{\text{Coefficient of } x^2}$

$\Rightarrow \quad a \times \frac{1}{\alpha} = \frac{Bk}{2}$

$\Rightarrow \quad Bk = 2 \Rightarrow k = \frac{1}{4}$

28. (c) $k\left(x^2 + px - \frac{x}{p}\right)$

Explanation: Given that, Sum of the roots $= -P$

and Product of the roots $= \frac{-1}{p}$

$\therefore$ Required quadratic polynomial $= k(x^2 - (\text{Sum of the roots})x + \text{Product of the roots})$

$$= k\left[x^2 - (-p)x + \left(-\frac{1}{p}\right)\right] = k\left(x^2 + px - \frac{1}{p}\right)$$

where k is an arbitrary constant.

29. (c) 4.5 cm

Explanation: Since in ΔABC, $DE \parallel AB$

$$\therefore \quad \frac{CD}{AD} = \frac{CE}{BE}$$

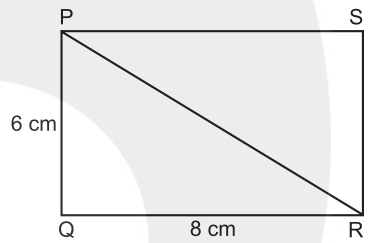
$$\frac{3}{DA} = \frac{4}{6}$$

$$DA = 4.5 \text{ cm}$$

30. (c) 10 cm

Explanation: Consider the rectangle PQRS, with $\angle PQR = 90°$ and PQ = 6 cm, QR = 8 cm

$\therefore$ By Pythagoras theorem in ΔPQR



$$PR^2 = PQ^2 + QR^2$$
$$= 6^2 + 8^2$$
$$= 36 + 64$$
$$= 100$$
$$PR = 10 \text{ cm}$$

31. (a) 2

Explanation: The point on X-axis is A(4, 0) and point on Y-axis is B(0, a)

Let, the point P be (4, A)

$$PA = \frac{1}{2}PB$$

$$\sqrt{(4-4)^2 + (a-0)^2} = \frac{1}{2}\sqrt{(4-0)^2 + (a-a)^2}$$

$$a = \frac{1}{2} \times 4$$

$$a = 2$$

32. (b) 8

Explanation: Since roots are α and $\frac{1}{\alpha}$

$$\alpha \times \frac{1}{\alpha} = \frac{k-4}{4}$$

$$k - 4 = 4$$

$$k = 8$$

33. (c) neither touches nor intersects X-axis.

Explanation: The graph of $x^2 + 4 = 0$

The x^2 is positive so the general shaps is 'U'. Since the coefficient of x is zero so the graph is central about the Y-axis. The constant part of the equation is of value + 4, so lifts the vertex up from $y = 0$ to $y = 4$.

$\therefore$ The graph of $x^2 + 4 = 0$, neither touches nor intersects X-axis.

34. (b) circles and all regular polygons

Explanation: As all circles and regular polygon of any sizes are similar.

35. (b) 8 cm

Explanation: Let, the length of side PQ be 'x' cm.

$$QR = 2x - 2$$
$$PR = x + 10$$
$$\therefore \quad \text{Perimeter} = 40 \text{ cm}$$
$$x + 2x - 2 + x + 10 = 40$$
$$4x + 8 = 40$$
$$x = 8$$

$\therefore$ Sides are 8 cm, 14 cm, 18 cm.

36. (d) $\tan\theta$

Explanation:
$$\frac{\sin\theta}{\sqrt{1-\sin^2\theta}} = \frac{\sin\theta}{\sqrt{\cos^2\theta}} \qquad [\because \sin^2\theta + \cos^2\theta = 1]$$
$$= \frac{\sin\theta}{\cos\theta} = \tan\theta$$

37. (d) 0

Explanation: Centroid of $\Delta PQR = \left(\frac{a+b+c}{3}, \frac{b+c+a}{3}\right)$

But centroid is at origin.

$$\therefore \quad 0 = \frac{a+b+c}{3} \quad \text{or} \quad 0 = \frac{b+c+a}{3}$$
$$\therefore \quad A + B + C = 0$$

38. (d) $x = 1, y = -1$

Explanation: Here, equations are :

$$ax + by = a - b \qquad ...(i)$$
and
$$bx - ay = a + b \qquad ...(ii)$$

Multiply equation (i) a^2x and equation (ii) by b and add both the equations

$$\therefore \quad a^2x + aby = a^2 - ab$$
$$b^2x - aby = ab + b^2$$
$$x(A^2 + B^2) = a^2 + b^2$$

$x = 1, y = -1$

39. (b) 80 cm^2

Explanation: Here, BC = 8 cm, DE = 6 cm and DE || BC.

$$\Delta ADE \sim \Delta ABC \qquad (\because \angle ADE = \angle ABC \text{ and } \angle AED = \angle ACB)$$

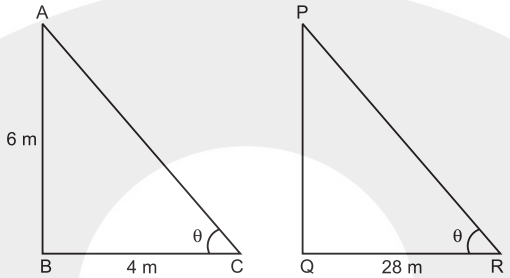
$$\frac{ar(\Delta ADE)}{ar(\Delta ABC)} = \frac{DE^2}{BC^2}$$

$$\frac{45}{ar(\Delta ABC)} = \frac{6^2}{8^2}$$

$$ar(\Delta ABC) = \frac{45 \times 64}{36} = 80 \text{ cm}^2$$

40. (c) 42 cm

Explanation: Here, AB is a vertical pole and BC is its shadow. And PQ is a tower and QR is



its shadow. At the same time, angle of elevation is same.

$$\therefore \quad \frac{AB}{BC} = \frac{PQ}{QR}$$

$$\frac{6}{4} = \frac{PQ}{28}$$

$$PQ = 42 \text{ cm}$$

Section - C

41. (c) (4, 5), (7, 6), (4, 3) and (1, 2)

Explanation: From figure, it is clear that coordinates of P, Q, R and S are (4, 5), (7, 6), (4, 3) and (1, 2) respectively.

So, option (c) is correct.

42. (a) QR = SP and PQ = RS

Explanation:

$$PQ = \sqrt{(4-7)^2 + (5-6)^2} = \sqrt{-(3)^2 + (-1)^2} = \sqrt{9+1} = \sqrt{10}$$

$$QR = \sqrt{(7-4)^2 + (5-3)^2} = \sqrt{-(3)^2 + (3)^2} = \sqrt{9+9} = \sqrt{18}$$

$$RS = \sqrt{(4-1)^2 + (3-2)^2} = \sqrt{(3)^2 + (1)^2} = \sqrt{9+1} = \sqrt{10}$$

and

$$PS = \sqrt{(4-1)^2 + (5-2)^2} = \sqrt{(3)^2 + (3)^2} = \sqrt{9+9} = \sqrt{18}$$

$$\therefore \quad PQ = RS = \sqrt{10} \text{ and } QR = PS = \sqrt{18}$$

43. (b) 2 and $\sqrt{52}$ respectively

Explanation:

$$\text{Diagonal PR} = \sqrt{(4-4)^2 + (5-3)^2}$$

$$= \sqrt{0^2 + (2)^2} = \sqrt{4} = 2$$

and

$$\text{Diagonal QS} = \sqrt{(7-1)^2 + (6-2)^2}$$

$$= \sqrt{(6)^2 + (4)^2} = \sqrt{36+16} = \sqrt{52}$$

44. (c) a parallelogram

Explanation: Since, opposite sides of this quadrilateral are equal but the diagonals are of different lengths.

The give quadrilateral is a parallelogram.

45. (d) $\frac{3\sqrt{10}}{5}$ units

Explanation: Area of parallelogram PQRS = Base × Height

$$6 = SR \times \text{Height}$$

$$\therefore \quad \text{Height} = \frac{6}{SR} = \frac{6}{\sqrt{10}} = \frac{3\sqrt{10}}{5} \text{ units}$$

46. (a) 720 cm

Explanation: Minimum required distance to reach the juice shop = LCM (240, 90, 120)

$\therefore$ $240 = 2 \times 2 \times 2 \times 2 \times 3 \times 5$

$90 = 2 \times 3 \times 3 \times 5$

and $120 = 2 \times 2 \times 2 \times 3 \times 5$

Now, $\text{LCM} = 24 \times 32 \times 5 = 16 \times 9 \times 5 = 720$

Hence, required distance is 720 cm.

47. (b) 30

Explanation: The number of common steps cover by all of them

$$= \text{HCF}(240, 90, 120) = 2 \times 3 \times 5 = 30$$

48. (b) A × B = LCM(A, B) × HCF (A, B)

Explanation: The relation between LCM and HCF is

$$\text{LCM}(a, b) \times \text{HCF}(a, b) = a \times b$$

49. (a) HCF

Explanation: A largest positive integer that divides given two positive integers is called HCF.

50. (a) tree

Explanation: Factor tree is a chain of factors, which is represented in the form of a tree.

Sample Paper 7

Section - A

1. (b) $y = a$

Explanation: Equation of a line parallel to X-axis given by, $y = a$

2. (d) 4

Explanation: Smallest composite number is 4.

3. (a) 18

Explanation: Given, $\sin\theta = \frac{1}{3}$

$$\therefore \quad \text{cosec}\,\theta = \frac{1}{\sin\theta} = 3$$

$$\cot\theta = \sqrt{\text{cosec}^2\theta - 1} = \sqrt{9-1} = \sqrt{8} \qquad (\because 1 + \cot^2\theta = \text{cosec}^2\theta)$$

$\therefore$ $2\cot^2\theta + 2 = 2 \times 8 + 2 = 16 + 2 = 18$

4. (a) $\frac{60}{\pi}$ cm

Explanation : Length of are of circle = 20 cm

Here, central angle, $\theta = 60°$

$\therefore$ Lentgh of are $= \frac{\pi}{360°} \times 2\pi r$

$\Rightarrow$ $20 = \frac{60°}{360°} \times 2\pi r$

$\Rightarrow$ $r = \frac{20 \times 6}{2\pi}$

$\Rightarrow$ $r = \frac{60}{\pi}$ cm

5. (b) 9

Explanation: $9(\sec^2 A - \tan^2 A) = 9(1)$ $[\because \sec^2\theta - \tan^2\theta = 1]$

$= 9$

6. (b) (3, – 3)

Explanation: $f(x) = x^2 - 9$

$= (x+3)(x-3)$

Zeroes of polynomial are 3 and – 3.

7. (a) $x^2 - 6x + 4$

Explanation: Let the required polynomial be $f(x)$.

So $f(x) = x^2 - (\alpha + \beta)x + \alpha\beta = 0$

or $x^2 - 6x + 4 = 0$ [substituting the values of $\alpha + \beta$ and $\alpha\beta$]

Thus, $x^2 - 6x + 4 = 0$ is the required polynomial.

8. (b) 150°

Explanation: Time duration between 4.00 pm and 4 : 25 pm = 25 minutes

$\because$ Angle described by minute hand in 60 minutes = 360°

$\therefore$ Angle discribed by minute hand in 25 min $= \frac{360°}{60°} \times 25 = 150°$

9. (a) $\frac{1}{2}$

Explanation: Total outcomes = HH, HT, TH, TT *i.*E. 4

Favourable outcomes = HT, TM *i.*E. 2

P(exactly one head) $= \frac{2}{4} = \frac{1}{2}$

10. (c) 3

Explanation: 3, as the graph of the polynomial cuts the x-axis at 3 points.

11. (a) $\frac{4\sqrt{3}}{3}$

Explanation: $\tan 30° + \tan 60° = \sqrt{3} + \frac{1}{\sqrt{3}}$

$$= \frac{3+1}{\sqrt{3}}$$

$$= \frac{4}{\sqrt{3}} = \frac{4\sqrt{3}}{3}$$

12. (d) 5

Explanation: Since, $\operatorname{cosec}^2\theta - \cot^2\theta = 1$

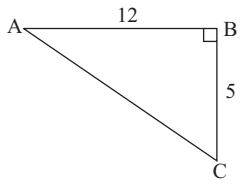
$\Rightarrow$ $(\operatorname{cosec}\theta - \cot\theta)(\operatorname{cosec}\theta + \cot\theta) = 1$

$\Rightarrow$ $\frac{1}{5} \times (\operatorname{cosec}\theta + \cot\theta) = 1$

$\Rightarrow$ $\operatorname{cosec}\theta + \cot\theta = 5$

13. (c) 13 M

Explanation: Applying Pythagoras theorem,



$AC^2 = AB^2 + BC^2$

$\Rightarrow$ $AC^2 = 12^2 + 5^2$

$= 144 + 25 = 169 = 13^2$

$\Rightarrow$ $AC = 13$ m

14. (a) $\frac{1}{4}$

Explanation: $\frac{1}{4}$ When two dices are rolled, total outcomes = 36

Favourable outcomes : (2, 2), (2, 4), (2, 6), (4, 2), (4, 4), (4, 6), (6, 2), (6, 4), (6, 6) i.e., 9

$\therefore$ P(getting even number on both dice) = $\frac{9}{36} = \frac{1}{4}$

15. (a) $\frac{\pi}{\sqrt{3}}$

Explanation: Given, $2r = A$

$\Rightarrow$ $\frac{r}{a} = \frac{1}{2}$

$$\therefore \quad \frac{\text{Area of circle}}{\text{Area of equilateral triangle}} = \frac{\pi r^2}{\frac{\sqrt{3}}{4}a^2} = \frac{4\pi}{\sqrt{3}}\left(\frac{r}{a}\right)^2$$

$$= \frac{4\pi}{\sqrt{3}} \times \frac{1}{4} = \frac{\pi}{\sqrt{3}}$$

16. (d) $\frac{1}{26}$

Explanation : Total cards = 52, Red queen = 2

Probability $= \frac{2}{52} = \frac{1}{26}$

17. (a) 2 units

Explanation : Here, $2\pi r = \pi r^2$

$\Rightarrow$ $r = 2$ units

18. (c) ± 6

Explanation : Condition for no-solution

$$\frac{k}{12} = \frac{3}{k} \neq \frac{k-2}{k} \text{ i.E., } k^2 = 36$$

$\Rightarrow$ $k = \pm 6$

19. (d) $\frac{3}{4}$

Explanation : As $3 \sec \theta = 5$

$\therefore$ $\sec \theta = \frac{5}{3}$

$1 + \tan^2 \theta = \sec^2 \theta$ (by identely)

$\Rightarrow$ $\tan^2 \theta = \frac{25-1}{9}$

$\Rightarrow$ $\tan^2 \theta = \frac{16}{9}$

$\Rightarrow$ $\tan \theta = \frac{4}{3}$

$\Rightarrow$ $\cot \theta = \frac{3}{4}$

20. (a) – 16, 19

Explanation : Hence, given equation are

$x + y = 3$ ...(i)

$7x + 6y = 2$ ...(ii)

Multyiply equation (i) by 7 and sultract (ii) from (i), we get

$$\begin{aligned} 7x + 7y &= 21 \\ 7x + 6y &= 2 \\ - \quad - \quad & \quad - \\ \hline y &= 19 \end{aligned}$$

$\therefore$ $x = 3 - y$

$= 3 - 19$

$= -16$

Section - B

21. (c) 17

Explanation: Using distance formula,

$$D = \sqrt{(15-7)^2 + \{8-(-7)\}^2}$$

$$= \sqrt{8^2 + 15^2}$$
$$= \sqrt{64 + 225}$$
$$= \sqrt{289} = 17$$

22. (b) 4

Explanation: Prime factors of 196 $= 2^2 \times 7^2$

So, sum of exponents $= 2 + 2 = 4$

23. (c) $\frac{4}{\sqrt{7}}$

Explanation: Given, $\sin A = \frac{3}{4}$

We know, $\sin A = \frac{P}{H} = \frac{3}{4}$

$P = 3k$ and $H = 4k$

$P^2 + B^2 = H^2$ [Applying Pythagoras theorem]

$\Rightarrow$ $9k^2 + B^2 = 16k^2$

$\Rightarrow$ $B^2 = 7k^2$

$\Rightarrow$ $B = \sqrt{7}\,k$

$\therefore$ $\sec A = \frac{H}{B} = \frac{4k}{\sqrt{7}\,k} = \frac{4}{\sqrt{7}}$

24. (d) $-m, m + 3$

Explanation: Given Polynomial is :

$$p(x) = x^2 \times 3x - m(m + 3)$$

It can be recoritten as :

$$= x^2\,[(m + 3) - m]x - m(m + 3)$$
$$= x^2 - (m + 3)\,x + mx - m(m + 3)$$
$$= x(x - m - 3) + m(x - m - 3)$$

For zeroes, put $p(x) = 0$

$$(x + m)\,(x - m - 3) = 0$$

$\Rightarrow$ $x = -m, m + 3$

25. (a) 3.1415926535....

Explanation: Rest all are rational numbers

as $10.2 = \frac{10.2}{10} = \frac{51}{5}$

$$(0.2)^2 = 0.04 = \frac{4}{100} = \frac{1}{25}$$

$$0.2 = \frac{2}{10} = \frac{1}{5}$$

26. (b) 0.00208

Explanation: $\frac{13}{6250} = \frac{13}{2^1 \times 5^5} = \frac{13 \times 2^4}{2^5 \times 5^5} = \frac{208}{(10)^5}$

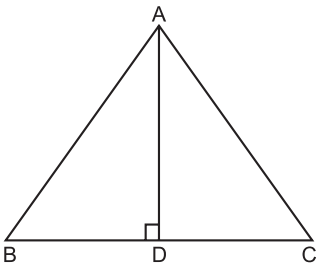
$= 0.00208$

27. (b) $\angle B = \angle D$

Explanation: If ΔABC and ΔDEF are two triangles and $\frac{AB}{DE} = \frac{BC}{FD}$, then the two triangles are similar if $\angle B = \angle D$.

28. (c) $BD.CD = AD^2$

Explanation: In ΔADB and ΔADC



$$\angle D = \angle D = 90°$$
$$\angle DBA = \angle DAC$$
$$\therefore \quad \angle ADB \sim \angle ADC \quad \text{(by AA similarity)}$$
$$\frac{BD}{AD} = \frac{AD}{CD}$$
$$\Rightarrow \quad BD.CD = AD^2$$

(c.p.s.t)

29. (b) – 1.5

Explanation: The probability lies between 0 and 1. Hence, it cannot be negative.

30. (d) (1, 3)

Explanation: By section formula, we know

$$x = \frac{[2\times4+3\times(-1)]}{2+3} = \frac{8-3}{5} = 1$$
$$y = \frac{[2\times-3+(3\times7)]}{2+3} = \frac{-6+21}{5} = 3$$

Hence, the required point is (1, 3).

31. (c) non-terminating are repeating

Explanation: Here, $\frac{22}{7} = 3.14285714285$

32. (b) 2

Explanation: Prime factors

$$65 = 5 \times 13$$
$$117 = 3 \times 3 \times 13$$
$$\therefore \quad HCF = 13$$

Now, A.T.Q $\quad 13 = 65\ m - 117$

$$65\ m = 130$$
$$m = 2$$

33. (d) Isosceles triangles

Explanation: All circles, squares and equilateral triangles are similar.

34. (b) DE = 12 cm, $\angle F = 100°$

Explanation: $\angle ABC \sim \angle DEF$, $\angle A = 30$, $\angle C = 50°$, AB = 2 cm, AC = 8 cm and DE = 7.5 cm

In $\angle ABC$,

$$\angle A + \angle B + \angle C = 180°$$
$$\angle B = 180° - 30° - 50° = 100°$$

Since, $\angle ABC \sim \angle DEF$, the corresponding angles are equal.

Thus,
$$\angle D = \angle A = 30°$$
$$\angle F = \angle B = 100°$$
$$\angle E = \angle C = 50°$$

and, $\frac{AB}{DF} = \frac{AC}{DE}$

$$\frac{5}{15} = \frac{8}{DE}$$

$$DE = \frac{8 \times 7.5}{5} = 12 \text{ cm}$$

35. (a) $-6x + 10y - 4 = 0$

Explanation: The condition for dependent linear equation is :

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2} = \frac{1}{2}$$

Equation is $-6x + 10y - 4 = 0$

36. (c) 3

Explanation: $(\sqrt{5}+\sqrt{2})(\sqrt{5}-\sqrt{2}) = (\sqrt{5})^2 - (\sqrt{2})^2$

$= 5 - 2$

$= 3$

37. (c) 12 sq. units

Explanation: Area of triangle $= \frac{1}{2} \times \text{base} \times \text{height}$

$= \frac{1}{2} \times 6 \times 4$

$= 12$ sq. units

38. (a) 0

Explanation: Given, that in a right angled ΔABC,

$\angle C = 90°$

We know that sum of the three angles is equal to 180°

$\angle A + \angle B + \angle C = 180°$

$\angle A + \angle B = 180° - 90°$

$\angle A + \angle B = 90°$

Now, $\cos(A + B) = \cos 90° = 0$

39. (d) 3 cm

Explanation: Since $\Delta ABC \sim \Delta PQC$

$$\frac{AB}{PQ} = \frac{BC}{QR} = \frac{AC}{PR}$$

$\Rightarrow$ $$\frac{6}{4.5} = \frac{4}{x} = \frac{5}{3.75}$$

$\Rightarrow$ $$x = \frac{4.5 \times 4}{6} = 3 \text{ cm}$$

40. (c) $x = \frac{ay}{a+b}$

Explanation: Since DE || AB.

Then, $\Delta CED \sim \Delta CBA$

$$\frac{CD}{AC} = \frac{ED}{AB}$$

$$\Rightarrow \quad \frac{a}{a+b} = \frac{x}{y}$$

$$\Rightarrow \quad x = \frac{ay}{a+b}$$

Section - C

41. (c) A(3, 5); B(7, 9)
Explanation: A(3, 5); B(7, 9).

42. (a) C(11, 5), D(7, 1)
Explanation: C(11, 5), D(7, 1).

43. (a) Yes
Explanation: Yes.

44. (a) (7, 5)
Explanation: (7, 5).

45. (c) 8 units
Explanation:

$$BD = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

$$BD = \sqrt{(7-7)^2 + (9-1)^2}$$

$$BD = \sqrt{0 + 8^2}$$

$$BD = \sqrt{64}$$

$$BD = 8 \text{ units.}$$

46. (b) 12
Explanation: common factor of 60, 80 & 108 is = 12

47. (d) 21
Explanation: The no. of students seated in each room would be 12
Now no. of rooms required are

$$= \frac{60 + 84 + 108}{12}$$

$$= \frac{252}{12} = 21$$

48. (a) 3780
Explanation: Factors of 60, 84 and 108 are

$$60 = 12 \times 5$$
$$84 = 12 \times 7$$
$$108 = 12 \times 9$$

L.C.M. of 60, 84 & 108 is $12 \times 5 \times 7 \times 9$

$$= 12 = 12 \times 315$$
$$= 3780$$

49. (d) 45360
Explanation: H.C.F. of 60, 84 and 108 is 12.
L. C. M. of 60, 84 and 108 is 3780
So, H.C.F. × L.C.M. = 3780 × 12 = 45360

50. (d) $2^2 \times 3^3$
Explanation: $108 = 2 \times 2 \times 3 \times 3 \times 3$
So, $108 = 2^2 \times 3^3$.

❑❑

Science

Sample Question Paper

Science [Code (086)]

Term – I

Time : 90 Minutes **Max. Marks : 50**

General Instructions :

1. The Question Paper contains three sections.
2. Section A has 24 questions. Attempt any 20 questions.
3. Section B has 24 questions. Attempt any 20 questions.
4. Section C has 12 questions. Attempt any 10 questions.
5. All questions carry equal marks.
6. There is no negative marking.

Section – A

Section – A consists of 24 questions. Attempt any 20 questions from this section.
The first attempted 20 questions would be evaluated.

1. Reema took 5ml of Lead Nitrate solution in a beaker and added approximately 4ml of Potassium Iodide solution to it. What would she observe?

(A) The solution turned red
(B) Yellow precipitate was formed
(C) White precipitate was formed
(D) The reaction mixture became hot

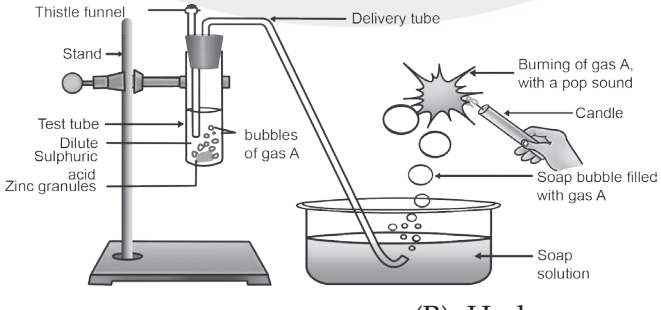
Ans. (B) Yellow precipitate is formed

Explanation: On adding approximately 4ml potassium Iodide solution to the 5ml of Lead Nitrate solution in a beaker, reema would observe that a yellow precipitate is formed due to the formation of lead iodide. The reaction is as follows:

$$Pb(NO_3)_2(aq) + 2KI(aq) \rightarrow 2KNO_3(aq) + PbI_2(s)$$

In the reaction, $Pb(NO_3)_2$ represents lead nitrate, KI represents potassium iodide, KNO_3 represents potassium nitrate and PbI_2 represents lead iodide. The reaction involving given substrates is double displacement reaction.

2. Identify gas A in the following experiment.



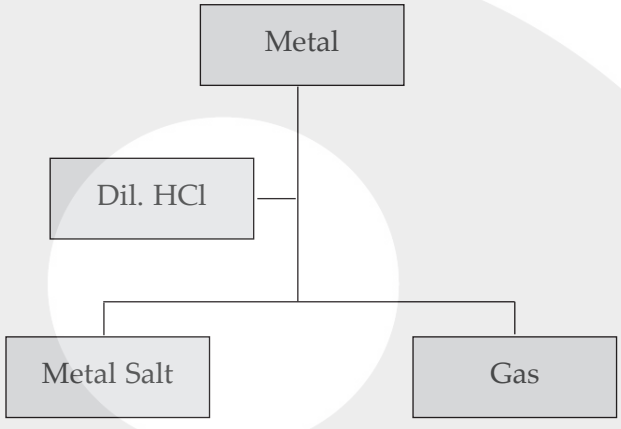
(A) Nitrogen
(B) Hydrogen
(C) Oxygen
(D) Carbon dioxide

Ans. (B) Hydrogen

Explanation: When dilute hydrochloric acid is added to granulated zinc placed in a test tube, zinc metal is converted to zinc chloride and colourless and odourless gas is evolved. This evolved gas is hydrogen gas and can be seen as bubbles in soap solution. When a burning candle is bought near this gas, it burns with a pop-sound. Hence, the gas evolved during the experiment is hydrogen gas. The reaction can be represented as:

$$\underset{\text{Hydrochloric acid}}{2HCl(aq)} + \underset{\text{Zinc}}{Zn(s)} \longrightarrow \underset{\text{Zinc chloride}}{ZnCl_2(aq)} + \underset{\text{Hydrogen}}{H_2(g)}$$

3.



Which of the following two combinations are correct?

	Metal	Gas Evolved
(i)	Copper	Yes
(ii)	Iron	Yes
(iii)	Magnesium	No
(iv)	Zinc	Yes

(A) i and iii (B) i and iv (C) ii and iii (D) ii and iv

Ans. (D) (ii) and (iv)

Explanation: Out of the given combinations, ii and iv are correct. When dilute sulphuric acid is added to Fe and Zn metal, a colourless and odourless gas called as hydrogen gas is evolved which burns with a pop sound and salt of respective metals are formed. The reactions can be represented as follows:

Word equation:

Iron + Hydrochloric acid → Iron chloride + Hydrogen

Balanced equation:

$Fe(s) + 2HCl(dil) \rightarrow FeCl_2(aq) + H_2(g)$.

Word equation:

Zinc + Sulphuric acid → Zinc sulphate + Hydrogen

Balanced equation:

$Zn(s) + H_2SO_4(dil) \rightarrow ZnSO_4(aq) + H_2(g)$.

4. Which of the following correctly represents a balanced chemical equation?

(A) $Fe(s) + 4H_2O(g) \rightarrow Fe_3O_4\ (s) + 4H_2(g)$

(B) $3Fe(s) + 4H_2O(g) \rightarrow Fe_3O_4\ (s) + 4H_2(g)$

(C) $3Fe(s) + H_2O(g) \rightarrow Fe_3O_4\ (s) + H_2(g)$

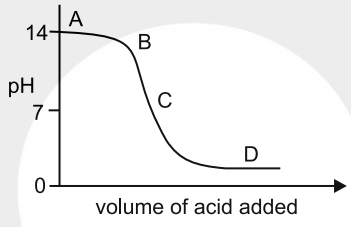
(D) $3Fe(s) + 4H_2O(g) \rightarrow Fe_3O_4\ (s) + H_2(g)$

Ans. (B) $3Fe(s) + 4H_2O(g) \rightarrow Fe_3O_4\ (s) + 4H_2(g)$

Explanation: Out of the given options, the chemical equation given in option B is balanced chemical equation as the total number of reactants and products are equal on both the left hand side and the right hand side.

Reactants	Total number of atoms	Products	Total number of atoms
Fe	3	Fe	3
H	8	H	8
O	4	O	4

5. The graph given below depicts a neutralization reaction (acid + alkali → salt + water). The pH of a solution changes as we add excess of acid to an alkali.



Which letter denotes the area of the graph where both acid and salt are present?

(A) A (B) B (C) C (D) D

Ans. (D) D

Explanation: Letter D denotes the area of the graph where both acid and salt are present. This can be explained as follows:

While performing an acid-base titration or neutralization reaction, an alkali is taken in a beaker and the acid in the burette. On slowly releasing acid into alkali, the endpoint of the reaction can be observed by seeing the colour change of indicator. On adding the acid to alkali, the pH in the graph decreases. Once the concentration of alkali becomes equal to concentration of acid, they react to form salt and water. This makes the pH equal to 7 which is indicated by point C on graph. When we keep on adding acid, the medium becomes acidic (pH < 7). This means that the medium contains excess acid and also salt. Thus, letter D denotes the area of the graph where both acid and salt are present.

6. In the reaction of iron with copper sulphate solution: $CuSO_4 + Fe \rightarrow Cu + FeSO_4$

Which option in the given table correctly represents the *substance oxidised* and the *reducing agent*?

Option	Substance Oxidized	Reducing Agent
(A)	Fe	Fe
(B)	Fe	$FeSO_4$
(C)	Cu	Fe
(D)	$CuSO_4$	Fe

Ans. (A) Fe and Fe respectively.

Explanation: The reaction $Fe + CuSO_4 \rightarrow Cu + FeSO_4$ is a redox reaction.

The complete ionic reaction can be written as:

$$Fe + Cu^{2+} + SO_4^{2-} \rightarrow Fe^{2+} + Cu + SO_4^{2-}$$

The net ionic reaction an be written as:

$$Fe + Cu^{2+} \rightarrow Fe^{2+} + Cu$$

Iron is oxidised and copper is reduced.

$$Fe \xrightarrow{\text{Oxidation}} Fe^{2-} + 2e^-$$

$$Cu^{2+} + 2e^- \xrightarrow{\text{Reduction}} Cu$$

Thus, in the above reaction iron (Fe) is getting oxidised and it acts as reducing agent.

7. The chemical reaction between copper and oxygen can be categorized as:

(A) Displacement reaction
(B) Decomposition reaction
(C) Combination reaction
(D) Double displacement reaction

Ans. (C) Combination reaction

Explanation: A combination reaction is a reaction where two or more elements or compounds (reactants) combine to form a single compound (product). Copper and oxygen react together to make copper oxide.

$$2Cu + O_2 \rightarrow 2CuO$$

8. Which of the given options correctly represents the *Parent acid* and *base* of Calcium Carbonate?

Option	Parent Acid	Parent Base
(A)	HCl	NaOH
(B)	H_2CO_3	$Ca(OH)_2$
(C)	H_3PO_3	$CaSO_4$
(D)	H_2SO_4	$CaSO_4$

Ans. (B) H_2CO_3 $Ca(OH)_2$

Explanation: Parent acid and parent base of the salt calcium carbonate is carbonic acid (H_2CO_3) and calcium hydroxide ($Ca(OH)_2$) respectively.

9. How will you protect yourself from the heat generated while diluting a concentrated acid?

(A) By adding acid to water with constant stirring.
(B) By adding water to acid with constant stirring.
(C) By adding water to acid followed by base.
(D) By adding base to acid with constant stirring.

Ans. (A) By adding acid to water with constant stirring.

Explanation: The reaction of acid and water is an exothermic reaction because a lot of heat is liberated during the reaction. This heat changes some water to steam explosively which can be dangerous as it splashes the acid on our face, clothes or other body parts and causes acid burns.

Therefore, it is preferred that the acid is added to water rather than the water being added to the acid while diluting an acid. Thus, adding acid to water is safe, but adding water to acid is not.

10. Why is it important to balance a skeletal chemical equation?

(A) To verify law of conservation of energy.
(B) To verify the law of constant proportion.
(C) To verify the law of conservation of mass.
(D) To verify the law of conservation of momentum.

Ans. (C) To verify the Law of conservation of mass

> **Explanation:** A balanced chemical equation is the one in which the number of atoms of reactants are equal to the number of atoms of products. We need to balance a skeletal chemical equation because according to the law of conservation of mass, mass is neither created nor destroyed in a chemical reaction. Thus, the total mass of the products formed in the chemical reaction must be equal to the mass of reactants consumed during the chemical reaction.

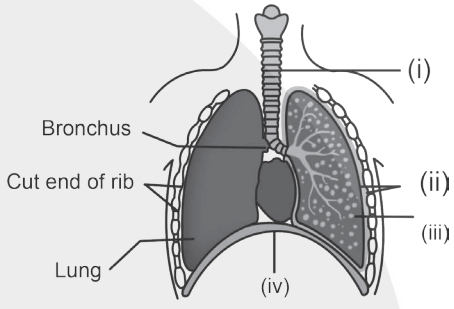
11. Carefully study the diagram of the human respiratory system with labels A, B, C and D. Select the option which gives correct identification and main function and /or characteristic.

(A) (i) Trachea: It is supported by bony rings for conducting inspired air.

(B) (ii) Ribs: When we breathe out, ribs are lifted.

(C) (iii) Alveoli: Thin-walled sac like structures for exchange of gases.

(D) (iv) Diaphragm: It is pulled up when we breathe in.



Ans. (C) (iii) Alveoli: Thin-walled sac like structures for exchange of gases.

> **Explanation:** The alveoli are thin-walled tiny air sacs within the lungs wherer oxygen and carbon dioxide exchange takes place. These pulmonary alveoli are the terminal ends of the respiratory tree.

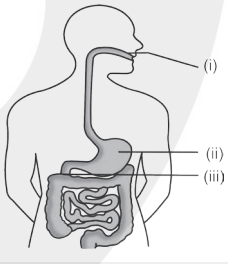
12. Identify the option that indicates the correct enzyme that is secreted in location A, B and C.

(A) (i)-lipase, (ii)-trypsin, (iii)-pepsin

(B) (i)-amylase, (ii)-pepsin, (iii)-trypsin

(C) (i)-trypsin, (ii)-amylase, (iii)-carboxylase

(D) (i)-permease, (ii)-carboxylase, (iii)-oxidase



Ans. (B) (i) - amylase, (ii) - pepsin, (iii) - trypsin

> **Explanation:** The digestive enzymes such as amylase, lipase, and trypsin are released from the following location:
>
> **Amylase:** In the mouth, it is present in the human saliva and is secreted by the salivary glands.
>
> **Pepsin:** In the stomach and it is secreted by the peptic or zymogenic cells of the stomach.
>
> **Trypsin:** Trypsin is secreted by the pancreas.

13. Opening and closing of stomatal pore depends on:

(A) Atmospheric temperature

(B) oxygen concentration around stomata

(C) carbon dioxide concentration around stomata

(D) water content in the guard cells

Ans. (D) water content in the guard cells

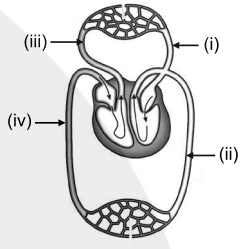
Explanation: Stomata are tiny pores which are present on the surface of the leaves of plant. Stomatal pores helps the plant to release water vapour during transpiration and to take in cabon dioxide and release oxygen during photosynthesis. The opening and closing of stomatal pore depends on water content or turgidity in the guard cells.

During the daytime, guard cells can perform photosynthesis, which leads to an increase in osmotic pressure.

As a result, the guard cells absorb water from the neighboring cells and become turgid.

The outer thin walls of guard cells are pushed out and the inner thicker walls are pulled inwards resulting in stomatal opening.

14. The figure given below shows a schematic plan of blood circulation in humans with labels (i) to (iv). Identify the correct label with its functions?



(A) (i) Pulmonary vein - takes impure blood from body part.

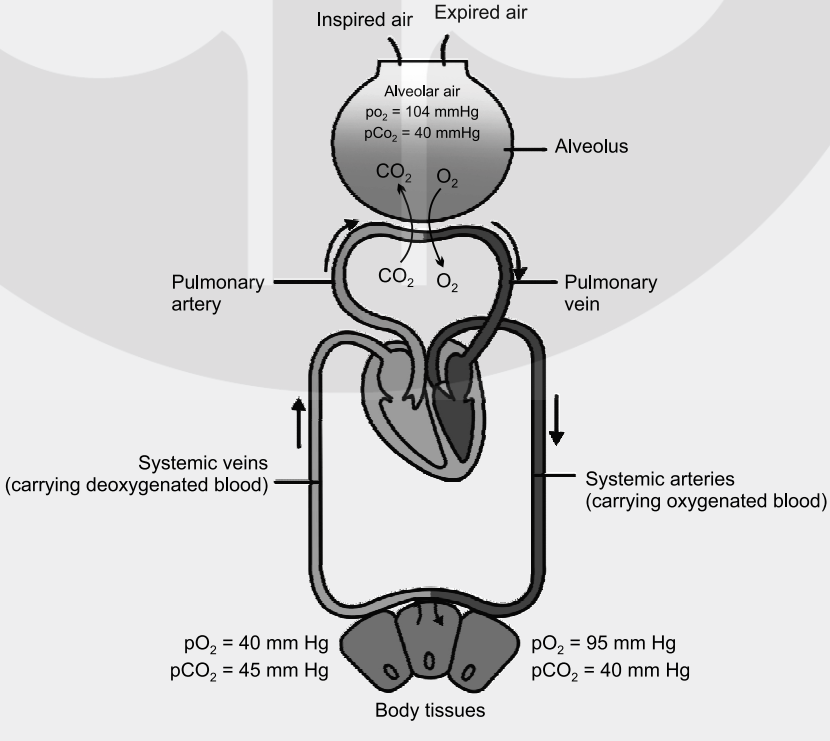
(B) (ii) Pulmonary artery - takes blood from lung to heart.

(C) (iii) Aorta - takes blood from heart to body parts.

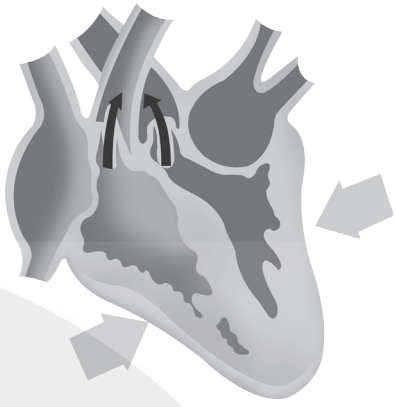
(D) (iv) Vena cava takes - blood from body parts to right auricle.

Ans. (D) (iv) Vena cava takes blood from body parts to right auricle

Explanation: Blood circulation in our body is responsible for the transport of nutrients and oxygen to different parts of the body. The vena cava is responsible for carrying the deoxygenated blood from the lower and middle parts of the body to the right auricle and the partial pressure of carbon dioxide in vena cava is equal to 45 mm Hg. On the other hand, pulmonary vein carries the oxygen-rich blood from the left atrium into the left ventricle and therefore, the partial pressure of oxygen in pulmonary vein is very high. The pulmonary artery carries the deoxygenated blood from the right ventricle of the heart to the lungs and therefore, the partial pressure of carbon dioxide will be high. Aorta, carries the oxygen rich blood from the left side of the heart to the body.



15. Identify the phase of circulation which is represented in the diagram of heart given below. Arrows indicate contraction of the chambers shown.



(A) Blood transferred to the right ventricle and left ventricle simultaneously.

(B) Blood is transferred to lungs for oxygenation and is pumped into various organs simultaneously.

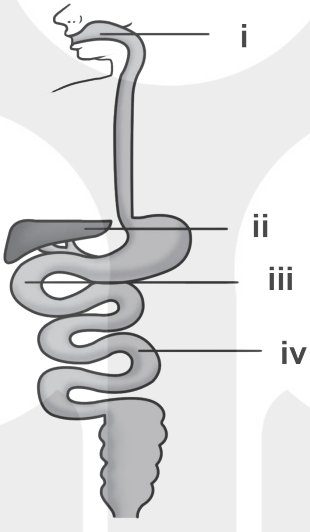
(C) Blood transferred to the right auricle and left auricle simultaneously.

(D) Blood is received from lungs after oxygenation and is received from various organs of the body.

Ans. (B) Blood is transferred to lungs for oxygenation and is pumped into various organs simultaneously.

> **Explanation:** The phase of circulation which is represented in the diagram of heart given shows that the blood is transferred to lungs for oxygenation and is pumped into various organs simultaneously.

16. Observe the diagram of Human digestive system.



Match the labeling referred in column I and correlate with the function in column II.

Column I	Column II
(i)	(a) The length of this depends on food the organism eats.
(ii)	(b) Initial phase of starch digestion.
(iii)	(c) Increases the efficiency of lipase enzyme action.
(iv)	(d) This is the site of the complete digestion of carbohydrates, proteins and fats.

(A) (i)– (a) ; (ii) – (b) ; (iii) – (c) ; (iv) – (d)

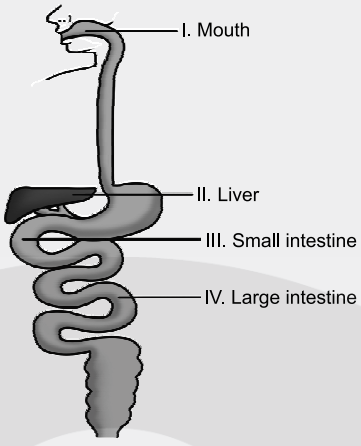
(B) (i)–(b) ; (ii) – (c) ; (iii) – (d) ; (iv) – (a)

(C) (i)–(b) ; (ii) – (d) ; (iii) – (c) ; (iv) – (a)

(D) (i)–(d) ; (ii) – (a) ; (iii) – (b) ; (iv) – (c)

Ans. (B) (i)- (b) ; (ii) – (c) ; (iii) – (d) ; (iv)- (a)

Explanation:



Explanation: In the diagram given in the question :

I. Mouth

II. Liver

III. Small intestine

IV. Large intestine

The functions of the following parts are :

I. Mouth : Initial phase of starch digestion

II. Liver : Increases the efficiency of lipase enzyme action

III. Small intestine : This is the site of the complete digestion of carbohydrates, proteins and fats.

IV. Large intestine : The length of this depends on food the organism eats.

17. Which of the following mirror is used by a dentist to examine a small cavity in a patient's teeth?

(A) Convex mirror (B) Plane mirror

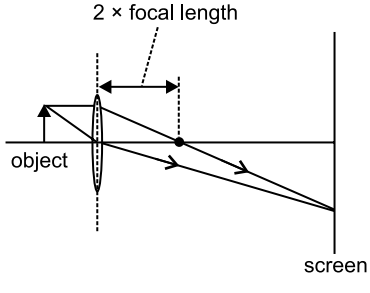
(C) Concave mirror (D) Any spherical mirror

Ans. (C) Concave mirror

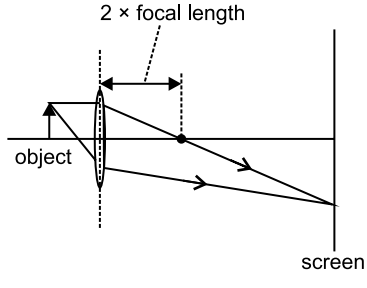
Explanation: Concave mirror is used by a dentist to examine a small cavity in a patient's teeth because they are converging mirror and reflect light to the focal point. Concave mirrors are very useful as they produce a magnified image of a tooth when repairing cavities, cracks and other abnormalities because at a short range (object distances less than the focal length of the mirror) also, they produce enlarged, erect and virtual images.

18. Which diagram shows image formation of an object on a screen by a converging lens?

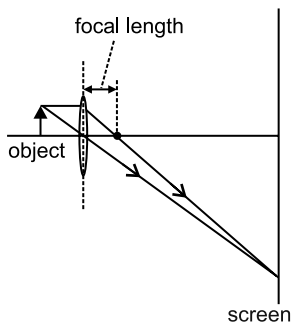
(a)



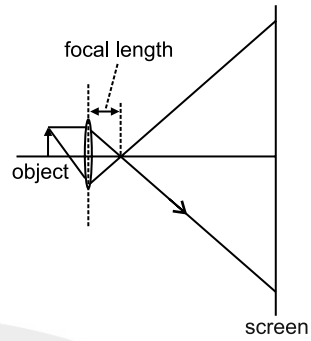
(b)



(c)

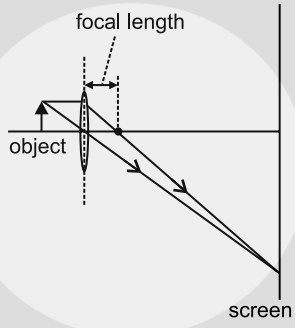


(d)



Ans. (C)

Explanation: Diagram C shows image formation of an object on a screen by a converging lens.



19. Which of the following can make a parallel beam of light when light from a point source is incident on it?

(A) Concave mirror as well as convex lens.
(B) Convex mirror as well as concave lens.
(C) Two plane mirrors placed at 90° to each others.
(D) Concave mirror as well as concave lens.

Ans. (A) Concave mirror as well as convex lens

Explanation: When light rays from a point source is incident on concave mirror and convex lens, emergent beams are parallel and the image is formed at infinity.

Convex mirror and concave lens on the other hand always form a virtual image. Emergent beams from these are not parallel but diverging when the object is kept at focus.

20. Consider these indices of refraction: glass: 1.52; air: 1.0003; water: 1.333. Based on the refractive indices of three materials, arrange the speed of light through them in decreasing order.

(A) The speed of light in water > the speed of light in air > the speed of light in glass.
(B) The speed of light in glass > the speed of light in water > the speed of light in air.
(C) The speed of light in air > the speed of light in water > the speed of light in glass.
(D) The speed of light in glass > the speed of light in air > the speed of light in water.

Ans. (C) The speed of light in air > the speed of light in water > the speed of light in glass.

Explanation: Refractive index or index of refraction is a measure of the bending of a ray of light when passing from one medium into another. Refractive index (n) is equal to the velocity of light (c) of a given wavelength in vacuum divided by its velocity (v) in the medium. Since, the refractive index is inversely proportional to the velocity of light in medium, thus, the medium with smallest refractive index will have the maximum speed.

$$\text{index of refraction } n = \frac{c}{v} = \frac{\text{velocity of light in vacuum}}{\text{velocity of light in medium}}$$

For the given refractive index, air ($n = 1.0003$) has minium refractive index; which is followed by water ($n = 1.333$) and then glass ($n = 1.52$). Thus, the speed of light in these medium will follow the below order:

The speed of light in air > the speed of light in water > the speed of light in glass

21. If a beam of red light and a beam of violet light are incident at the same angle on the inclined surface of a prism from air medium and produce angles of refraction r and v respectively, which of the following is correct?

(A) $r = v$ (B) $r > v$

(C) $r = 1/v$ (D) $r < v$

Ans. (D) $r < v$

Explanation: According to Cauchy's formula,

$$u = A + \frac{B}{\lambda} \text{ [A \& B are constants]}$$

$$u_{red} = A + \frac{B}{\lambda_{red}} \quad \ldots\text{(i)}$$

$$u_{violet} = A + \frac{B}{\lambda_{violet}} \quad \ldots\text{(ii)}$$

We know $\lambda_{red} > \lambda_{violet}$ from (i) & (ii) $\mu_{red} < \mu_{violet}$

For red light: $\sin i = u_{red} \sin r \Rightarrow u_{red} = \dfrac{\sin i}{\sin r}$ ...(iii)

For violet, $\sin i = u_{violet} \sin v \Rightarrow u_{red} = \dfrac{\sin i}{\sin v}$ ...(iv)

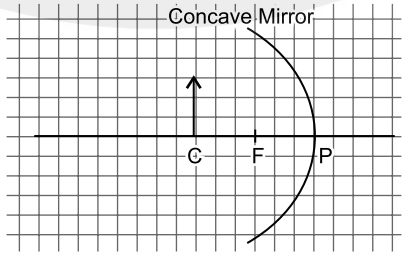
[i = angle of incidence]

$$u_{red} < u_{violet}$$

$\Rightarrow \dfrac{\sin i}{\sin r} < \dfrac{\sin i}{\sin v}$ [From (iii) & (iv)]

$\Rightarrow \sin r > \sin v \Rightarrow r > v$

22.



Examine the above figure and state which of the following option is correct?

[one small box in the figure is equal to 1 cm]

(A) The mirror has a focal length of -6 cm and will produce an image of magnification +1.

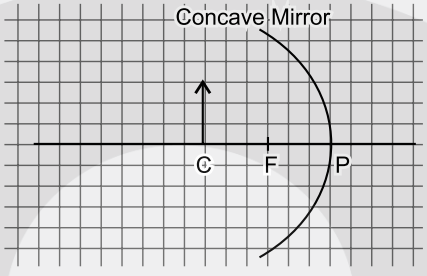
(B) The mirror has a focal length of -3 cm and will produce an image of magnification -1.

(C) The mirror has a focal length of -3 cm and will produce an image of magnification +1.

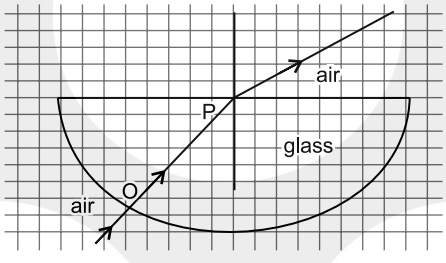
(D) The mirror has a focal length of -6 cm and will produce an image of magnification -1.

Ans. (B) The mirror has a focal length of -3 cm and will produce an image of magnification -1.

Explanation: From the figure given, it can be stated that the mirror has a focal length of -3 cm and will produce an image of magnification -1.



23.

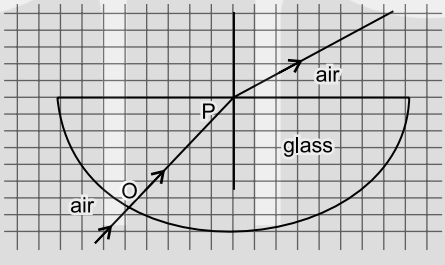


The angle of incidence from air to glass at the point O on the hemispherical glass slab is.

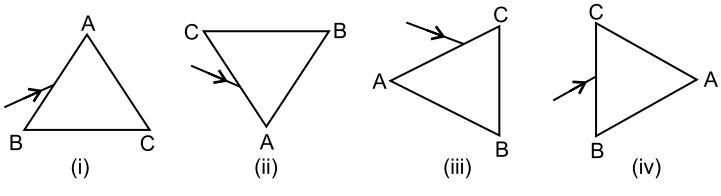
(A) 45° (B) 0° (C) 90° (D) 180°

Ans. (B) 0°

Explanation: The angle of incidence from air to glass at the point O on the hemispherical glass slab is 0°



24. A prism ABC (with BC as base) is placed in different orientations. A narrow beam of white light is incident on the prism as shown in below Figure. In which of the following diagrams, after dispersion, the third colour from the top of the spectrum corresponds to the colour of the sky?

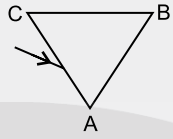


(A) (i) (B) (ii) (C) (iii) (D) (iv)

Ans. (B) (ii)

Explanation: When the prism is placed with angle A in the upward direction, the third colour from top is yellow (refer image A). But we have been given the third colour from top is that is blue (colour of the sky).

Thus, base BC must be on the top that is the prism must be inverted.



Section - B

Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

The first attempted 20 questions would be evaluated.

25. Limestone $\xrightarrow[\text{Step 1}]{\text{Heated}}$ X + CO_2 $\xrightarrow{+\ H_2O\ \text{Step 2}}$ Slaked lime

Identify the correct option from the given table which represents the type of reactions occuring in step 1 and step 2.

	endothermic	exothermic
(A)	×	✓
(B)	✓	×
(C)	✓	×
(D)	✓	×

Ans. (C) ✓ ×

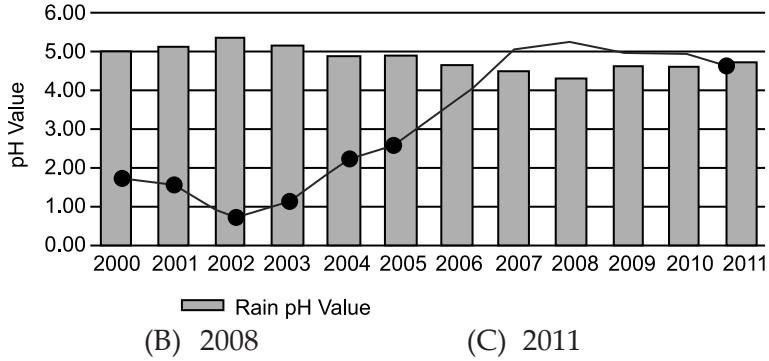
Explanation: In the step 1, when limestone (calcium carbonate) is heated, it absorbs heat and decomposes to form calcium oxide (quick lime) and carbon dioxide. Since, limestone is absorbing heat, therefore, it is an endothermic reaction. The reactions is as follows:

$$CaCO_3 \xrightarrow{\text{heat}} \underset{\text{Quick time}}{CaO} + CO_2$$

In the step 2, when water is added to quicklime (CaO), calcium hydroxide (slaked lime) is obtained with the evolution of heat. Since, there is a rise in temperature during the reaction, it is an exothermic reaction.

$$CaO + H_2O \rightarrow \underset{\text{Slaked lime}}{Ca(OH)_2}$$

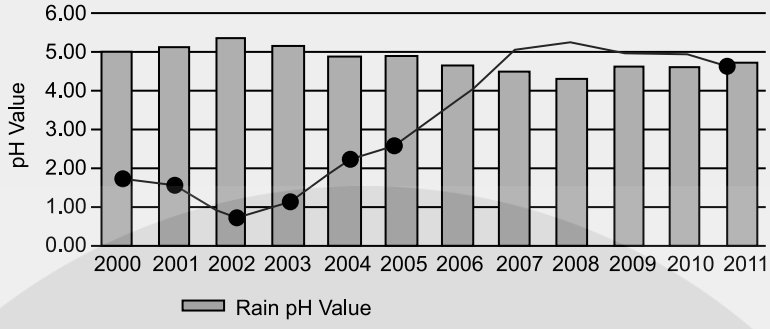
26. In which year is concentration of hydrogen ion the highest?



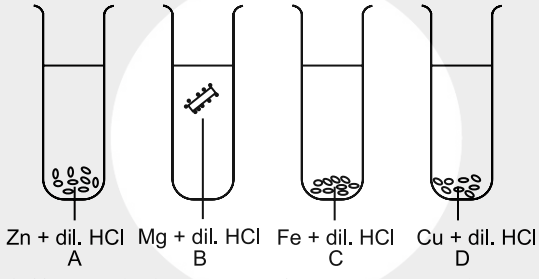
(A) 2002 (B) 2008 (C) 2011 (D) 2005

Ans. (A) 2002

Explanation: From the graph below, it is clear that hydrogen ion concentration is maximum in the year 2002.



27. The diagram shows the reaction between metal and dil. acid.



What is the reason for different behaviour of Mg in test tube B?

(A) Mg is lighter element than dil. HCl

(B) Mg reacts with dil. HCl to produce H_2 gas which helps in floating

(C) Mg reacts with dil. HCl to produce N_2 gas which helps in floating

(D) Mg reacts with dil. HCl to produce CO_2 gas which helps in floating

Ans. (B) Mg reacts with dil. HCl to produce H_2 gas which helps in floating

Explanation: Magnesium reacts very vigorously with dil HCl to produce metallic salt magnesium chloride with the liberation of hydrogen gas which helps in the floating:

$$Mg + 2HCl \rightarrow \underset{\text{Magnesium chloride}}{MgCl_2} + \underset{\text{Hydrogen gas}}{H_2}$$

28. The table shown below gives information about four substances: A, B, C and D.

Substance	Melting Point (k)	Electrical Conductivity	
		Solid	Liquid/ Aqueous
A	295	Good	Good
B	1210	Poor	Good
C	1890	Poor	Good
D	1160	Poor	Poor

Identify Ionic compounds from the above given substances.

(A) A, B

(B) B, C

(C) A, B, D

(D) A, C, D

Ans. (B) B, C

Explanation: Ionic compounds conduct electricity when molten (liquid) or in aqueous solution (dissolved in water), because their ions are free to move from place to place. Ionic compounds cannot conduct electricity when solid, as their ions are held in fixed positions and cannot move.

Also, as ionic compounds are held together by electrostatic forces between the oppositely charged ions , a lot of energy is needed to overcome this ionic bonding so ionic compounds have high melting and boiling points. Thus, from the table given, substances B and C are ionic compounds.

Substance	Melting Point (k)	Electrical Conductivity	
		Solid	Liquid/ Aqueous
B	1210	Poor	Good
C	1890	Poor	Good

29. Vinay observed that the stain of curry on a white shirt becomes reddish-brown when soap is scrubbed on it, but it turns yellow again when the shirt is washed with plenty of water. What might be the reason for his observation?

(i) Soap is acidic in nature

(ii) Soap is basic in nature

(iii) Turmeric is a natural indicator which gives reddish tinge in bases

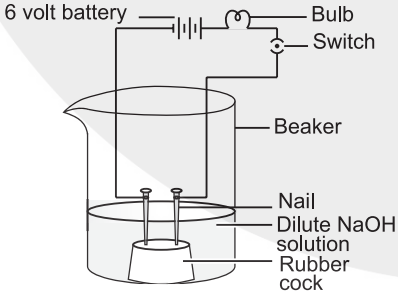
(iv) Turmeric is a natural indicator which gives reddish tinge in acids

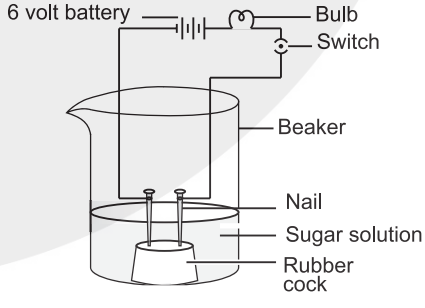
(A) (i) and (ii) (B) (ii) and (iii) (C) (i) and (iv) (D) (ii) and (iv)

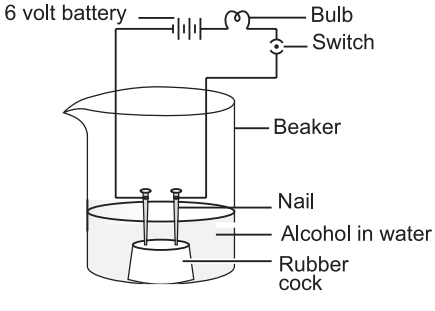
Ans. (B) (ii) and (iii)

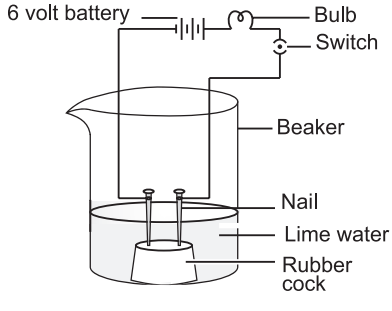
Explanation: The natural indicator present in curry stain is turmeric which is yellow in colour. This yellow stain of curry turns reddish-brown when soap is scrubbed on it because soap solution is basic in nature and it changes the yellow colour of the turmeric to reddish-brown. This reddish-brown stain turns yellow again when the cloth is rinsed with water because the basic soap gets removed with water.

30. In which of the following setups would the bulb glow?

(i)


(ii)


(iii)


(iv)


(A) (i) and (ii)
(B) (i) and (iv)
(C) (ii), (iii) and (iv)
(D) (i), (ii) and (iv)

Ans. (B) (i) and (iv)

Explanation: Bulb will glow in set-up (i) and (iv) because dilute HCl solution and lime water are good conductors of electricity.

Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

A. Both A and R are true and R is the correct explanation of A
B. Both A and R are true and R is not the correct explanation of A
C. A is true but R is false
D. A is false but R is true

31. **Assertion:** Fresh milk in which baking soda is added, takes a longer time to set as curd.

Reason: Baking soda decreases the pH value of fresh milk to below 6.

Ans. (C) A is true but R is false

Explanation: Fresh milk in which baking soda is added, takes a longer time to set as curd because it turned into a base and curd needs acidic condition to set. Hence, milk takes longer time to set as a curd. The reason that baking soda decreases the pH value of fresh milk to below 6 is false infact baking soda is added to milk to shift its pH from 6 to slightly alkaline so that the milk can be kept unspoiled for longer time than usual. Thus, assertion is true but reason is false.

32. **Assertion:** Decomposition of vegetable matter into compost is an endothermic reaction.

Reason: Decomposition reaction involves breakdown of a single reactant into simpler products.

Ans. (D) A is False but R is true

Explanation: Decomposition of vegetable matter into compost is an exothermic reaction not endothermic reaction. This decomposition is carried out by the bacteria present in the soil, where more complex substances are broken down into simpler units and during this decomposition, heat is evolved. Hence, the overall reaction is exothermic. Decomposition reaction involves breakdown of a single reactant into simpler products. Thus, assertion is false but reason is true.

33. **Assertion:** Resins and gums are stored in old xylem tissue in plants.

Reason: Resins and gums facilitate transport of water molecules.

Ans. (C) A is true but R is false.

Explanation: Excretion is the process of eliminating toxic waste products from the body but plants, unlike animals, lack a well-developed excretory system. Therefore, resins and gums which are the metabolic waste products of plants which are stored in the vacoules of the ageing cell such as old xylem, these cells die and then eventually fall-off. Gums, are ususlly formed due to the disintegration of plant cellulose. Resins and gums does not facilitate transport of water molecules. Thus, assertion is true but reason is false.

34. **Assertion:** Sky appears blue in the day time.

Reason: White light is composed of seven colours.

Ans. (B) Both A and R are true and R is not the correct explanation of A.

> **Explanation:** During the day time, sky appears blue. This is because the size of the particles in the atmosphere is smaller than the wavelength of visible light, so they scatter the light of shorter wavelengths. the scatter blue light enters our eye.
>
> Thus, sky appear blue during day time due to the process of scattering. When white light passes through the achromatic combination of prisms, it splits into a rainbow of seven colour and this process is called as dispersion. Thus, both assertion and reason are true but reason is not the correct explanation of assertion.

35. The table given below shows the reaction of a few elements with acids and bases to evolve Hydrogen gas.

Element	Acid	Base
(A)	×	✓
(B)	✓	×
(C)	✓	×
(D)	✓	×

Which of these elements form amphoteric oxides?

(A) A and D (B) B and D (C) A and C (D) B and D

Ans. (B) B and D

> **Explanation:** Metal oxides which react with both acids as well as bases to produce salts and water are known as amphoteric oxides. In the table given, element B and D are reacting with both acid and base to form metal oxide with the evolution of hydrogen gas. Hence, their metal oxides will react with both acid and bases to produce salts and water. Many metals such as zinc, tin, lead, aluminium, and beryllium) form amphoteric oxides or hydroxides. Amphoterism depends on the oxidation states of the oxide.

36. In which of the following groups of organisms, blood flows through the heart only once during one cycle of passage through the body?

(A) Rabbit, Parrot, Turtle (B) Frog, crocodile, Pigeon

(C) Whale, Labeo, Penguin (D) Shark, dog fish, sting ray

Ans. (D) Shark, dog fish, sting ray

> **Explanation:** In Shark, dog fish and sting ray blood flows through the heart only once during one cycle of passage through the body .
>
> The type of circulatory system in which the blood passes only once through the heart in each complete circuit of the body.
>
> First, the blood will pass through the heart to gills, then after purification, blood will be distributed to different parts of the body.

37. What is common between extensive network of blood vessels around walls of alveoli and in glomerulus of nephron?

(A) Thick walled arteries richly supplied with blood

(B) Thin walled veins poorly supplied with blood

(C) Thick walled capillaries poorly supplied with blood.

(D) Thin walled capillaries richly supplied with blood

Ans. (D) Thin walled capillaries richly supplied with blood.

> **Explanation:** Thin walled capillaries richly supplied with blood are common between extensive network of blood vessels around walls of alveoli and in glomerulus of nephron.

38. Plants use completely different process for excretion as compared to animals. Which one of the following processes is **NOT** followed by plants for excretion?

(A) They can get rid of excess water by transpiration.

(B) They selectively filter toxic substances through their leaves.

(C) Waste products are stored as resins and gums in old xylem.

(D) They excrete waste substances into the soil around them.

Ans. (B) They selectively filter toxic substances through their leaves.

> **Explanation:** Plants use completely different process for excretion as compared to animals. They get rid of Such excess water by the process of transpiration. They store their metabolic waste products such as resins and gums in old xylem. They excrete waste substances into the soil around them but they do not selectively filter toxic substances through their leaves.

39. If the power of a lens is - 4.0 D, then it means that the lens is a:

(A) concave lens of focal length -50 m

(B) convex lens of focal length +50 cm

(C) concave lens of focal length -25 cm

(D) convex lens of focal length -25 m

Ans. (C) concave lens of focal length -25 cm

> **Explanation:**
>
> $$P = -4D$$
>
> $$P = \frac{100}{f(\text{cm})}$$
>
> $$f(\text{cm}) = \frac{100}{P}$$
>
> $$\frac{100}{-4} = -25 \text{ cm}$$
>
> Negative focal length means concave lens. Concave lens of focal length – 25 cm.

40. Rays from Sun converge at a point 15 cm in front of a concave mirror. Where should an object be placed so that size of its image is equal to the size of the object?

(A) 30 cm in front of the mirror

(B) 15 cm in front of the mirror

(C) Between 15 cm and 30 cm in front of the mirror

(D) More than 30 cm in front of the mirror

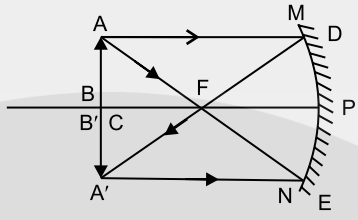
Ans. (A) 30 cm in front of the mirror

Explanation: If rays converge at a point 15 cm from the mirror, then,

$f = -15$ cm

then, C = – 30 cm

An object kept at C makes an image of the same size as object correct answer: (A) 30 cm in front of mirror.



41. In which of the following groups of organisms, food material is broken down outside the body and then absorbed in?

(A) mushroom, green plants, amoeba

(B) yeast, mushroom, bread mould

(C) paramecium, amoeba, cuscuta

(D) cuscuta, lice, tapeworm

Ans. (B) yeast, mushroom, bread mould

Explanation: Saprotrophic nutrition is a type of nutrition in which an organism depend on the dead and decaying matter for their nutrition. Such organisms which follow saprophytic nutrition are called Saprotrophs. They release specific enzyme that break down the complex organic matter into smaller and simpler particles that are easily consumable by these organism. The bread mould, yeast and mushroom shows saprophytic mode of nutrition. They obtain the energy from the dead and decaying organic matter. The organisms that obtain the energy from these dead and decaying organisms are called as saprophytes.

42. In a person the tubule part of the nephron is not functioning at all. What will its effect be on urine formation?

(A) The urine will not be formed.

(B) Quality and quantity of urine is unaffected.

(C) Urine is more concentrated.

(D) Urine is more diluted.

Ans. (D) Urine is more diluted.

Explanation: The Proximal Convoluted Tubule (PCT) is involved in the active and passive absorption of solutes like sodium, potassium, bicarbonate, amino acids, etc. Therefore, if the Proximal Convoluted Tubule (PCT) is not functioning properly, it will result in the formation of highly dilute(more water) urine.

43. If the real image of a candle flame formed by a lens is three times the size of the flame and the distance between lens and image is 80 cm, at what distance should the candle be placed from the lens?

(A) -80cm (B) -40 cm (C) -40/3 cm (D) -80/3 cm

Ans. (D) -80/3 cm

Explanation:

$$m = -3$$

$$V = 80 \text{ cm}$$

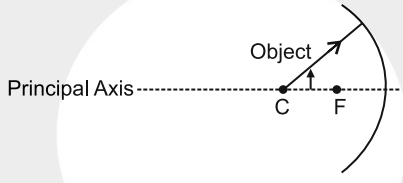
$$m = \frac{v}{u}$$

$$-3 = \frac{80}{u}$$

$$u = \frac{80}{-3} = \frac{-80}{3} \text{ cm.}$$

Correct answer = (D) $\frac{-80}{3}$ cm.

44.



While looking at the above diagram, Nalini concluded the following-

(i) the image of the object will be a virtual one.

(ii) the reflected ray will travel along the same path as the incident ray but in opposite direction.

(iii) the image of the object will be inverted.

(iv) this is a concave mirror and hence the focal length will be negative.

Which one of the above statements are **correct**?

(A) (i) and (ii)

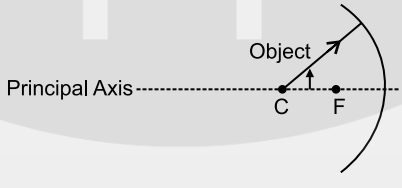
(B) (i) and (iii)

(C) (ii), (iii) and (iv)

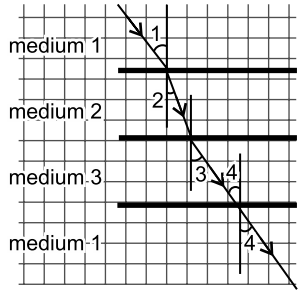
(D) (i), (ii), (iii) and (iv)

Ans. (C) (ii), (iii) and (iv)

Explanation: From the given diagram, Nalini concluded that the reflected ray will travel along the same path as the incident ray but in opposite direction. The image of the object will be inverted because the object is between *f* and 2*f* and since the given mirror is concave mirror. Hence, the focal length will be negative.



45.



In the above diagram light is travelling through different media. It is noted by a scientist that $\angle 1 = \angle 3 = \angle 4$ but $\angle 2 < \angle 1$. Which of the following statement would be correct?

(A) Medium 1 is the denser than medium 3 but it's density is equal to medium 2.

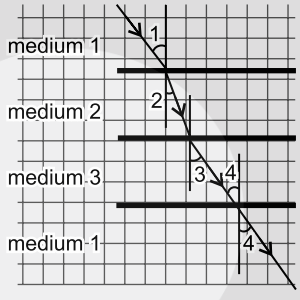
(B) Medium 2 is the rarest medium.

(C) Medium 3 is denser than medium 1.

(D) Medium 1 and 3 are essentially the same medium, but medium 2 is denser than 1 and 3.

Ans. (D) Medium 1 and 3 are essentially the same medium, but medium 2 is denser than 1 and 3.

Explanation: In the given diagram, light is travelling through different media. It is noted that $\angle 1 = \angle 3 = \angle 4$ but $\angle 2 < \angle 1$ because medium 1 and 3 are essentially the same medium, but medium 2 is denser than 1 and 3.



46. The refractive index of flint glass is 1.65 and that for alcohol is 1.36 with respect to air. What is the refractive index of the flint glass with respect to alcohol ?

(A) 0.82 (B) 1.21 (C) 1.11 (D) 1.01

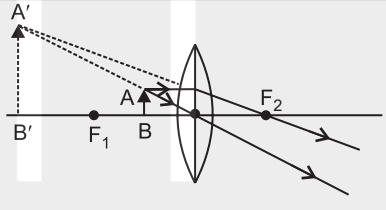
Ans. (B) 1.21

Explanation: Refractive index of flint glass w.r.t alcohol = $\dfrac{\text{R.I.of flint glass}}{\text{R.I. of alcohol}}$

$$= \frac{1.65}{1.36} = 1.21$$

Correct answer –(B)1.21

47.



The above lens has a focal length of 10 cm. The object of height 2 mm is placed at a distance of 5 cm from the pole. Find the height of the image.

(A) 4 cm (B) 6.67 mm (C) 4 mm (D) 3.33 mm

Ans. (C) 4 mm

Explanation:

$f = +10\text{cm}$ (Convex lens)

$h_1 = 2\text{mm} = 0.2\text{cm}.$

$u = -5\text{cm}.$

$$\frac{1}{f} = \frac{1}{v} - \frac{1}{5}$$

$$\frac{1}{v} = \frac{1}{10} - \frac{1}{5}$$

$$\frac{1\text{-}2}{10} = \frac{\text{-}1}{10}$$

$$V = \text{-}10\text{cm.}$$

$$m = \frac{u}{v} = \frac{h_2}{h_1}$$

$$m = \frac{-10}{-5} = \frac{h_2}{0.2}$$

$$\Rightarrow \quad h_2 = 0.4\text{cm.}$$

$$h_2 = 4\text{mm}$$

Correct answer (C) 4mm

48. A cable manufacturing unit tested few elements on the basis of their physical properties.

Properties	W	X	Y	Z
Malleable	Yes	No	No	Yes
Ductile	Yes	No	No	Yes
Electrical conductivity	Yes	Yes	Yes	No
Melting Point	High	Low	Low	High

Which of the above elements were discarded for usage by the company?

(A) W, X, Y (B) X, Y, Z (C) W, X, Z (D) W, X, Z

Ans. (B) X, Y, Z

Explanation: Elements X, Y and Z were discarded for usage by the company because from the physical properties of these elements given in the table, we can see that element X and Y are neither malleable nor ductile which means they cannot be beaten into thin sheets nor they can be drawn into thin wires and also they have low melting point. Whereas element Z is malleable, ductile and has high melting point but it is not a good conductor of electricity. Therefore, elements X, Y and Z were discarded.

Properties	**W**	**X**	**Y**	**Z**
Malleable	Yes	No	No	No
Ductile	Yes	No	No	Yes
Electrical conductivity	Yes	Yes	Yes	No
Melting Point	High	Low	Low	High

Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

The first attempted 10 questions would be evaluated.

Case :The Salt Story From:

The New Indian Express 9 March 2021

The salt pans in Marakkanam, a port town about 120 km from Chennai are the third largest producer of salt in Tamil Nadu. Separation of salt from water is a laborious process and the salt obtained is used as raw materials for manufacture of various sodium compounds.

One such compound is Sodium hydrogen carbonate, used in baking, as an antacid and in soda acid fire extinguishers. The table shows the mass of various compounds obtained when 1litre of sea water is evaporated.

Compound	Formula	Mass of solid present /g
Sodium Chloride	$NaCl$	28.0
Magnesium Chloride	$MgCl_2$	8.0
Magnesium Sulphate	$MgSO_4$	6.0
Calcium Sulphate	$CaSO_4$	2.0
Calcium Carbonate	$CaCO_3$	1.0
Total Amount of Salt Obtained		45.0

49. Which compound in the table reacts with acids to release carbon dioxide?

(A) $NaCl$ (B) $CaSO_4$ (C) $CaCO_3$ (D) $MgSO_4$

Ans. (C) $CaCO_3$

Explanation: Calcium carbonate ($CaCO_3$) reacts with acids to release carbon dioxide. For example, when calcium carbonate reacts with HCl, it forms calcium chloride, water along with the liberation of carbon dioxide gas. The reaction is as follows:

$$CaCO_3 + 2HCl \rightarrow CaCl_2 + CO_2 + H_2O$$

50. How many grams of Magnesium Sulphate are present in 135g of solid left by evaporation of sea water?

(A) 6g (B) 12g (C) 18g (D) 24g

Ans. (C) 18 g

Explanation:

$$45\text{g salt} \rightarrow 6\text{g } MgSO_4$$

$$1\text{g salt} \rightarrow \frac{6}{45} \text{ g } MgSO_4$$

$$135\text{g salt} \rightarrow \frac{6}{45} \times 135 = 18\text{g}$$

51. What is the saturated solution of Sodium Chloride called?

(A) Brine (B) Lime water (C) Slaked lime (D) Soda water

Ans. (A) Brine

Explanation: Saturated solution of sodium chloride (NaCl) is called as brine.

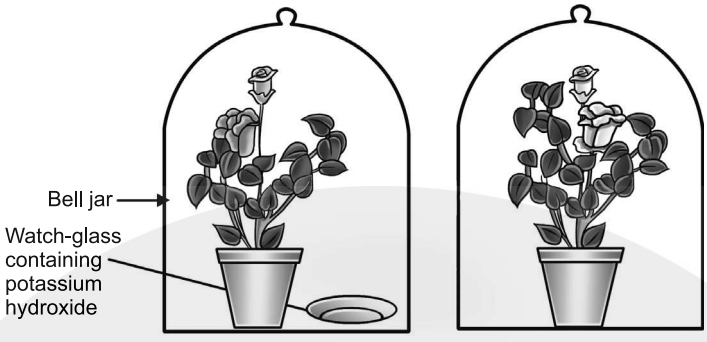
52. What is the pH of the acid which is used in the formation of common salt?

(A) Between 1 to 3 (B) Between 6 to 8

(C) Between 8 to 10 (D) Between 11 to 13

Case: The Figure shown below represents an activity to prove the requirements for photosynthesis. During this activity, two healthy potted plants were kept in the dark for 72

hours. After 72 hours, KOH is kept in the watch glass in setup X and not in setup Y. Both these setups are air tight and have been kept in light for 6 hours. Then, Iodine Test is performed with one leaf from each of the two plants X and Y.



Ans. (A) Between 1 to 3

> **Explanation:** The pH of the acid which is used in the formation of common salt is between 1 to 3.

53. This experimental set up is used to prove essentiality of which of the following requirements of photosynthesis?

(A) Chlorophyll
(B) Oxygen
(C) Carbon dioxide
(D) Sunlight

Ans. (C) Carbon dioxide

> **Explanation:** This experimental set up is used to prove essentiality of carbon dioxide gas for photosynthesis. This can be explained as follows:
>
> During this activity, when two healthy potted plants were kept in the dark for 72 hours and after, KOH is kept in the watch glass in setup X and not in setup Y. Both these setups were sealed air tight and kept in light for 6 hours after which iodine test was performed with one leaf from each of the two plants X and Y. While performing iodine test, the green coloured chlorophyll was removed from the leaf by boiling them in alcohol. After washing the leaves with water, pure iodine solution was poured over the leaves and it was observed that the leaf from the potted plant in set-up X does not turn blue black showing that there is no starch present in the leaf. This is because the watch glass containing potassium hydroxide solution absorbed CO_2 gas and we can conclude that photosynthesis cannot be carried out with carbon dioxide.

54. The function of KOH is to absorb:

(A) Oxygen
(B) Carbon dioxide
(C) Moisture
(D) Sunlight

Ans. (B) Carbon dioxide

> **Explanation:** The function of KOH is to absorb carbon dioxide gas.

55. Which of the following statements shows the correct results of Iodine Test performed on the leaf from plant X and Y respectively?

(A) Blue - black colour would be obtained on the leaf of plant X and no change in colour on leaf of plant Y.

(B) Blue - black colour would be obtained on the leaf of plant Y and no change in colour on leaf of plant X.

(C) Red colour would be obtained on the leaf of plant X and brown colour on the leaf of plant Y.

(D) Red colour would be obtained on the leaf of plant Y and brown colour on the leaf of plant X.

Ans. (B) Blue - black colour would be obtained on the leaf of plant Y and no change in colour on leaf of plant X.

> **Explanation:** The leaf from the potted plant in set-up X does not turn blue black showing that there is no starch present in the leaf whereas the leaf from set-up Y will turn blue black showing the presence of starch in the leaf.

56. Which of the following steps can be followed for making the apparatus air tight?

(i) placing the plants on glass plate

(ii) using a suction pump.

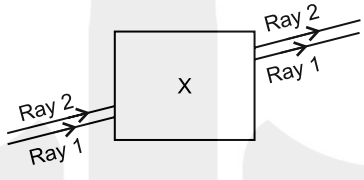
(iii) applying vaseline to seal the bottom of jar.

(iv) creating vacuum

(A) (i) and (ii) (B) (ii) and (iii)

(C) (i) and (iii) (D) (ii) and (iv)

Case : Noor, a young student, was trying to demonstrate some properties of light in her Science project work. She kept 'X' inside the box (as shown in the figure) and with the help of a laser pointer made light rays pass through the holes on one side of the box. She had a small butter-paper screen to see the spots of light being cast as they emerged.



Ans. (C) (i) and (iii)

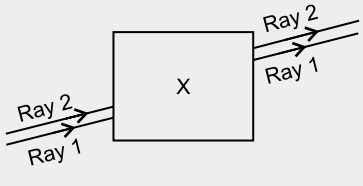
> **Explanation:** By placing the plants on glass plate and applying vaseline at the bottom of the jar the apparatus can be made air tight

57. What could be the 'X' that she placed inside the box to make the rays behave as shown?

(A) a converging lens (B) a parallel-sided glass block

(C) a plane mirror (D) a triangular prism

Ans. (B) a parallel-sided glass block

> **Explanation:** X is a parallel-sided glass block that is placed inside the box to make the rays behave as shown .
>
> 
>

58. She measured the angles of incidence for both the rays on the left side of the box to be 48.60. She knew the refractive index of the material 'X' inside the box was 1.5. What will be the approximate value of angle of refraction?

(A) 45°
(B) 40°
(C) 30°
(D) 60°

(use the value: sin 48.6° ≈ 0.75)

Ans. (C) 30°

Explanation: Refractive index of medium = $\frac{\sin i}{\sin r}$

$$1.5 = \frac{\sin 48.6°}{\sin r}$$

$$1.5 = \frac{0.75}{\sin r}$$

$$\sin r = \frac{0.75}{0.5}$$

$$\sin r = 0.5$$

$$r = \sin^{-1}(0.5)$$

$$r = 30°$$

Correct answer (C) 30°

59. Her friend noted the following observations from this demonstration:

(i) Glass is optically rarer than air.
(ii) Air and glass allow light to pass through them with the same velocity.
(iii) Air is optically rarer than glass.
(iv) Speed of light through a denser medium is faster than that of a rarer medium.
(v) The ratio: sin of angle of incidence in the first medium to the ratio of sin of angle of refraction in the second medium, gives the refractive index of the second material with respect to the first one.

Which one of the combination of the above statements given below is correct.

(A) (ii), (iv) and (v) are correct
(B) (iii) and (iv) are correct.
(C) (i), (iv) and (v) are correct.
(D) (iii) and (v) are correct.

Ans. (D) III and V are correct.

Explanation: The following properties of light can be concluded form the demonrtration:

(a) Air is optically rarer than glass.
(b) The ratio: sin of angle of incidence in the first medium to the ratio of sin of angle of refraction in the second medium, gives the refractive index of the second material with respect to the first one.

60. If the object inside the box was made of a material with a refractive index less than 1.5 then the

(A) lateral shift of the rays would have been less.

(B) lateral shift of the rays would have been more.

(C) lateral shift of the rays would remain the same as before.

(D) there is not enough information to comment on any of the above statements

Ans. (A) lateral shift of the rays would have been less.

Explanation: If the object inside the box was made of a material with a refractive index less than 1.5 then the lateral shift of the rays would have been less.

❑❑

Sample Paper 1

Science

Section - A

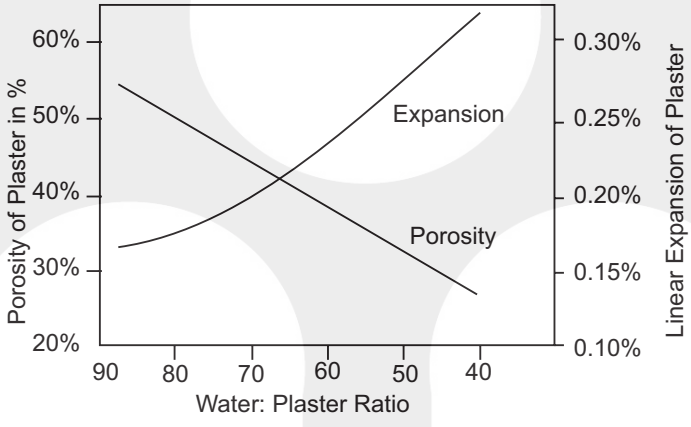
Section – A consists of 24 questions. Attempt any 20 questions from this section.

The first attempted 20 questions would be evaluated.

1. What is the nature of the new product which is formed by the action of water on quick lime? Give reason for your choice.

(A) Neutral (B) Acidic (C) Amphoteric (D) Basic

2. The graph shows the porosity and expansion of plaster with respect to water content. At what temperature, the reaction would occur?



(A) 373 K (B) 673 K (C) 273 K (D) 573 K

3. Match the following by choices given:

	Category of contraceptives		Name of contraceptives
1.	By changing the hormonal balance of the body so that eggs are not released and fertilisation cannot occur.	**a.**	Tubectomy
2.	Mechanical barrier so that sperm does not reach the egg.	**b.**	Pills
3.	Devices placed in the uterus to prevent pregnancy.	**c.**	Condoms
4.	Surgical blocking of vas deference in male.	**d.**	Vasectomy
5.	Surgical blocking of fallopian tube in female.	**e.**	Copper T

Choose the correct option:

(A) 1-b, 2-c, 3-e, 4-a, 5-d (B) 1-d, 2-a, 3-e, 4-b, 5-c

(C) 1-b, 2-e, 3-c, 4-a, 5-d (D) 1-b, 2-c, 3-e, 4-d, 5-a

4. Which of the following reactions is an exothermic reaction ?

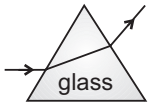
(A) Burning of coal.

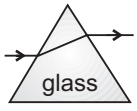
(B) Decomposition of vegetable matter into compost.

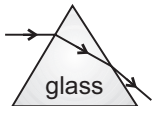
(C) Process of respiration.

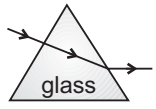
(D) Decomposition of calcium carbonate to form quick lime and carbon dioxide.

5. In the following figure, there is a triangle of glass in air. Which best shows the refracted ray of light?

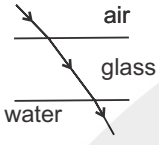
(A) 

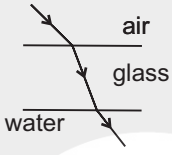
(B) 

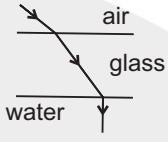
(C) 

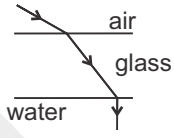
(D) 

6. A ray of light in air is incident on an interface with glass followed by an interface with water, such that the air-glass interface is parallel to the glass-water interface. Which best represents the refracted ray?

(A) 

(B) 

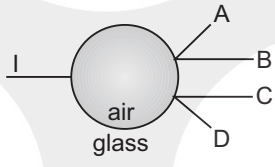
(C) 

(D) 

7. In which of the following group of organisms, food material is broken down outside the body and absorbed ?

(A) Mushroom, green plants, amoeba
(B) Yeast, mushroom, bread mould
(C) Paramecium, amoeba, cuscuta
(D) Cuscuta, lice, tapeworm

8. A spherical air bubble is embedded in glass, and a ray of light (incident ray I) approaches the bubble as shown in the figure. Which of the following represents the refracted ray which passes through the bubble completely?



(A) A
(B) B
(C) C
(D) D

9. The bluish colour of water in deep sea is due to:

(A) the presence of algae and other plants found in water
(B) reflection of the sky in water
(C) scattering of light
(D) absorption of light by the sea

10. A student covered a leaf from a destarched plant with a black paper strip and kept it in the garden outside his house in fresh air. In the evening, he tested the covered portion of the leaf for the presence of starch. By doing so the student was trying to show that:

(A) CO_2 is given out during respiration
(B) CO_2 is necessary for photosynthesis
(C) Chlorophyll is necessary for photosynthesis
(D) Light is necessary for photosynthesis

11. Image formed by a mirror is always straight whatever will be the distance, then mirror is:

(A) only plane
(B) only concave
(C) only convex
(D) either plane or convex

12. What is observed when air is blow from mouth into a test tube containing lime water?

(A) Lime water turns milky due to the CO_2 exhaled
(B) Lime water becomes colourless due to exhaled CO_2
(C) Lime water turns milky due to water vapour in blown air
(D) None of the above

13. Burning of the candle is a …… change.
(A) Physical (B) Chemical (C) Both (A) and (B) (B) None of them

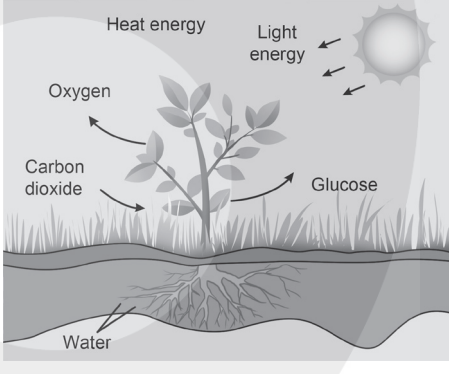
14. The angle of reflection is the angle between:
(A) the reflected ray and surface of mirror
(B) the incident ray and surface of mirror
(C) the normal to the surface of the mirror and incident ray
(D) the normal to the surface of the mirror and reflected ray

15. In which of the following, the identity of initial substance remains unchanged?
(A) Curdling of milk
(B) Formation of crystals by process of crystallisation
(C) Fermentation of grapes
(D) Digestion of food

16. The angle of deviation of a prism is the angle between:
(A) incident ray and refracted ray (B) emergent ray and refracted ray
(C) incident ray and emergent ray produced (D) None of the above

17. An alloy is:
(A) an element (B) a compound
(C) a homogeneous mixture (D) a heterogeneous mixture

18. The image shows the porcess of making food by a plant. Which statement can be concluded from the image?



(A) Plants absorb CO_2 from air and H_2O from the soil as raw materials and convert them into glucose.
(B) Plants absorb O_2 from air and minerals from the soils raw materials and convert them into heat energy.
(C) Plants absorb O_2 from air and glucose from the soil as raw materials and convert them into light energy.
(D) Plants absorb CO_2 from the soil and H_2O from air as raw materials and convert them into glucose.

19. How is sex of a child determined? Give reason.
(A) The X chromosome in the zygote
(B) The Y chromosome in zygote
(C) The cytoplasm of germ cell which determines the sex
(D) Sex is determined by chance

20. Which of the following salts do not contain water of crystallisation?
(A) Blue vitriol (B) Baking soda (C) Washing soda (D) Gypsum

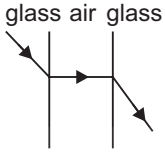
21. The red colour of the sun at the time of sunrise and sunset is because:
(A) red colour is least scattered (B) blue colour is least scattered
(C) red colour is most scattered (D) blue colour is most scattered

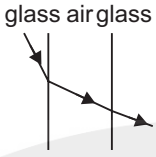
22. Use the following indices of refraction (μ) for the following:

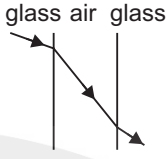
Substance	Refractive Index (μ)
Air	1
Water	$\frac{4}{3}$

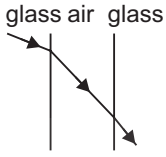
Hydrogen Peroxide	1.414
Glass	1.5
Ammonium Bromide	1.7

Which of the following best shows the refracted ray at a glass-air interface?

(A) 

(B) 

(C) 

(D) 

23. Which of the following gives the correct increasing order of acidic strength?

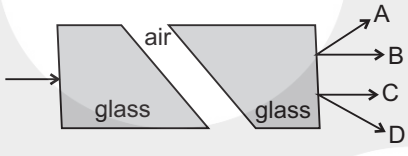
(A) Water < Acetic acid < Hydrochloric acid

(B) Water < Hydrochloric acid < Acetic acid

(C) Acetic acid < Water < Hydrochloric acid

(D) Hydrochloric acid < Water < Acetic acid

24. In the figure, a ray of light approaches normal to the surface on the left. Which best represents the refracted ray which leaves the right surface?



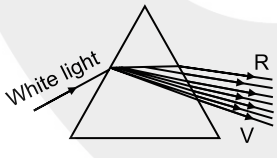
(A) A (B) B (C) C (D) D

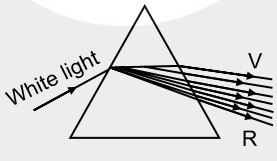
Section - B

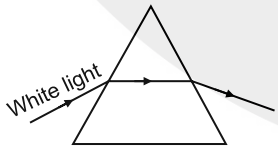
Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

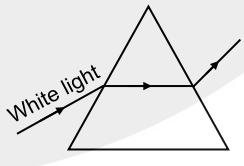
<u>The first attempted 20 questions would be evaluated.</u>

25. Which of the following figures correctly represents the passage of white light through prism?

(A) 

(B) 

(C) 

(D) 

26. Which of the following statements about the autotrophs is incorrect?

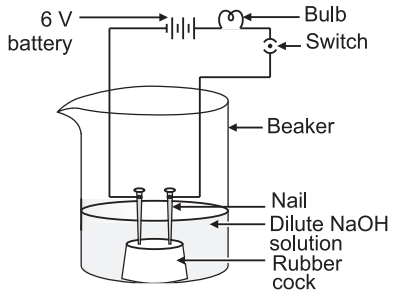
(A) They synthesis carbohydrates from carbon dioxide and water in the presence of sunlight and chlorophyll

(B) They store carbohydrates in the form of starch

(C) They convert carbon dioxide and water into carbohydrates in the absence of sunlight

(D) They constitute the first trophic level in food chains

27. In an attempt to demonstrate electrical conductivity through an electrolyte, the following apparatus (Figure) was set up.



Which among the following statement(s) is (are) correct?

(I) Bulb will not glow because electrolyte is not acidic.

(II) Bulb will glow because NaOH is a strong base and furnishes ions for conduction.

(III) Bulb will not glow because circuit is incomplete.

(IV) Bulb will not glow because it depends upon the type of electrolytic solution.

(A) (I) and (II) (B) (II) and (IV) (C) (II) only (D) (IV) only

28. What will be the position and nature of the image of an object formed by a convex mirror placed between infinity and pole (P) of the mirror?

(A) In between pole (P) and focus (*f*) behind mirror, virtual and erect.

(B) In between pole (P) and focus (*f*) behind mirror, virtual and inverted.

(C) In front of mirror, real and erect.

(D) In front of mirror, virtual and erect.

29. Which of the following statement is correct about metals?

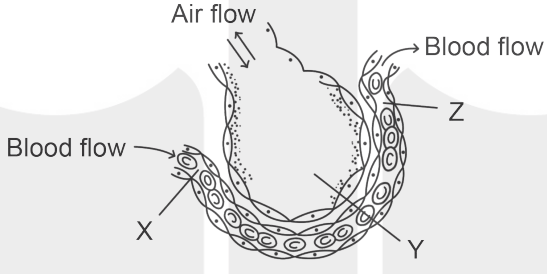
(A) Metal form positive ions by losing electrons

(B) Metals form negative ions by losing electrons

(C) Metals form positive ions by gaining electrons

(D) Metals form negative ions by gaining electrons

30. The diagram shows a section through an alveolus and a blood capillary.



What are the oxygen conentrations in X, Y and Z?

(A) X-High, Y-Low, Z-High (B) X-High, Y-Low, Z-Low

(C) X-Low, Y-High, Z-High (D) X-Low, Y-High, Z-Low

Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

A. Both A and R are true and R is the correct explanation of A

B. Both A and R are true and R is not the correct explanation of A

C. A is true but R is false

D. A is false but R is true

31. **Assertion:** Presence of HCl in stomach is necessary for the process of digestion.

Reason: HCl kills and inhibits the growth of bacteria in the stomach.

32. **Assertion:** Sodium is kept immersed in kerosene oil.
Reason: Sodium is very reactive metal.

33. **Assertion :** Sodium hydroxide reacts with zinc to produce hydrogen gas.
Reason : Acids reacts with active metals to produce hydrogen gas.

34. **Assertion:** The nature of the image formed by a concave mirror is real and inverted.
Reason: The image formed by a concave mirror depends on the position of the object at infinity.

35. Which of the following statements is correct regarding the propagation of light of different colours of white light in air?
(A) Red light moves fastest
(B) Blue light moves faster than green light
(C) All the colours of the white light move with the same speed
(D) Yellow light moves with the mean speed as that of the red and the violet light

36. Which one of the following involve a chemical reaction ?
(A) Evaporation of water
(B) Storing of nitrogen gas under pressure
(C) Keeping petrol in a China dish in open
(D) Heating magnesium wire in the presence of air at high temperature

37. From which structure, the free oxygen gas produced during photosynthesis is released?
(A) Epidermis (B) Stomata (C) Cortex (D) Guard cell

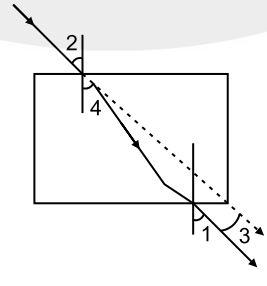
38. When an object is kept within the focus of a concave mirror, an enlarged image is formed behind the mirror. This image is:
(A) real (B) inverted
(C) virtual and inverted (D) virtual and erect

39. The electronic configuration of sodium ion is:
(A) 2, 8, 8 (B) 2, 8, 2 (C) 2, 6 (D) 2, 8

40. The rectangular surfaces of a prism are known as:
(A) Reflecting surfaces (B) Dispersing surfaces
(C) Refracting surfaces (D) Scattering surfaces

41. Element S reacts with element T to form a compound C. During the formation of compound C, atoms of S lose one electron whereas T gains one electron each. Which of the following properties is not shown by compound C?
(A) High melting point (B) Low melting point
(C) Occurrence as solid (D) Conduction of electricity in the molten state

42. The correct sequencing of angle of incidence, angle of emergence, angle of refraction and lateral displacement shown in the following diagram by digits 1, 2, 3 and 4 is:



(A) 2, 4, 1, 3 (B) 2, 1, 4, 3 (D) 1, 2, 4, 3 (D) 2, 1, 3, 4

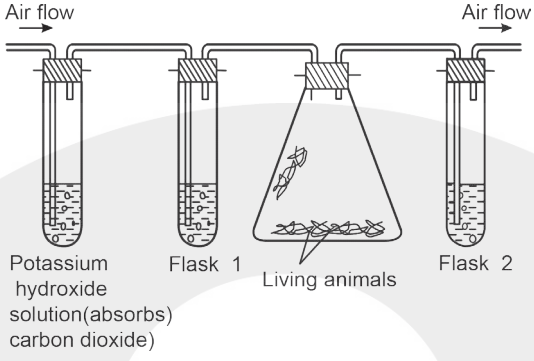
43. Three elements A, B and C have their electronic configuration as shown below:
A: 2, Y: 2, 8, 7 Z: 2, 8, 2

Which of the following is correct regarding these elements?

(A) A is a metal (B) Y is a metal

(C) Z is a non-metal (D) Y is a non-metal and Z is a metal

44. An experiment is set up as shown. Flasks 1 and 2 contain lime water. Air is pumped through the flasks.



What is the appearance of lime is flasks 1 and 2 after a period of ten minutes?

S. No.	Flask 1	Flask 2
a.	Clear	Clear
b.	Clear	White/Cloudy
c.	White/Cloudy	Clear
d.	White/Cloudy	White/Cloudy

45. Which of the following phenomena of light are involved in the formation of a rainbow?

(A) Reflection, refraction and disperson

(B) Refraction, dispersion and outer reflection

(C) Refraction, dispersion and internal reflection

(D) Dispersion, scattering and total internal reflection

46. Choose the incorrect one:

(A) An ionic bond represents sharing of electrons

(B) Metals are electropositive

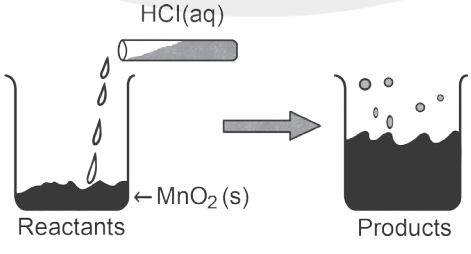
(C) Non-metals are electronegative

(D) Atoms react in order to complete their octet

47. The radius of curvature of concave mirror is 12 cm. Then, the focal length will be :

(A) 12 cm (B) 6 cm (C) – 24 cm (D) – 6 cm

48. The reaction between MnO_2 with HCl is depicted in the following diagram. It was observed that a gas with bleaching abilities was released.



The chemical reaction between MnO_2 and HCl is an example of:

(A) displacement reaction (B) combination reaction

(C) redox reaction (D) decomposition reaction

Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

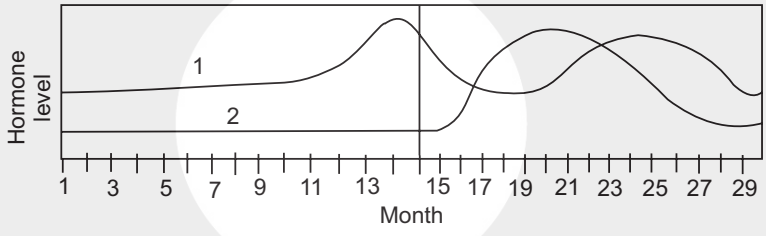
The first attempted 10 questions would be evaluated.

Case 1 : Reproduction is the process by which organisms increase their populations. The rates of birth and death in a given population will determine its size. The size of the human population is a cause for concern for many people.

49. Abhishek has 2 daughters and 1 son. To avoid further unwanted pregnancy, he undergoes a surgical treatment. What is the process called?

(A) Tubectomy (B) Vasectomy (C) Appendectomy (D) Bypass surgery

50. The graph below shows the change in hormonal level in a female during a month. What is the normal time period for menstruation to last in one cycle?



(A) 8-10 days (B) 15-16 days (C) 1-8 days (D) 2-8 days

51. What happens if the fallopian tubes are blocked and ovulated eggs are prevented from reaching the uterus?

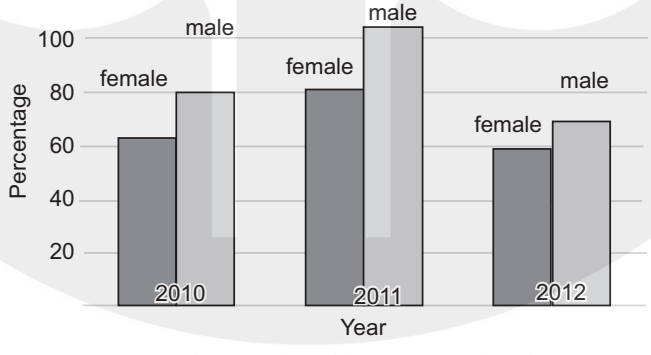
(A) Fertilisation may occur but no implantation occurs in uterus

(B) The sperm will enter ovary and fertilise the egg

(C) The fallopian tube burst open and the fertilisation occur

(D) All eggs in the ovary die

52. According to the survey conducted in 2010-2012, the graph depicts the sex-ratio in Haryana. The ratio of child sex ratio was found to be lower than the expected.



What could be the possible reason for such difference in child sex ratio?

(A) Sexually transmitted disease (B) No use of contraceptives

(C) Female foeticides (D) Hormonal imbalance

Case 2 : Reshma broke her leg in an accident. She went to see the Dr. Sant Prakash. On examination, Dr. Prakash mixed the white power in water and applied to her leg along with the cotton and gauze. After a while, it turned into white, solid, hard mass. He said that it would support her fractured bone in the right position.

53. After treatment, the doctor repacked the white powder back into moisture proof, airtight container. Why?

(A) The fungus growth will occur in open
(B) The powder would react to moisture and turn into solid mass
(C) The powder with react to sunlight and turn into solid mass
(D) To prevent the stealing of the powder as it is very expensive

54. What is 'white, solid hard mass' called as?
(A) Talcum powder (B) Paris of Plaster (C) Plaster of Paris (D) Copper sulphate

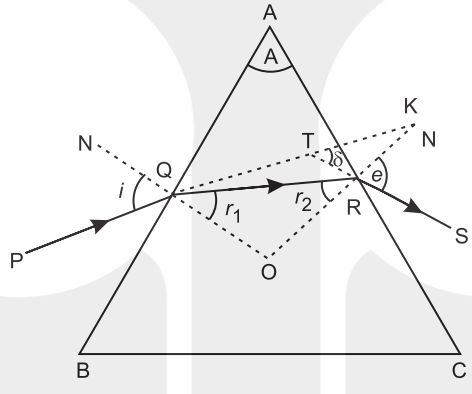
55. The reaction involved in the formation of white mass is:
(A) Combustion (B) Oxidation (C) Mineralisation (D) Crystallisation

56. Study the following reaction and choose the correct option:

$$CaSO_4.\frac{1}{2}H_2O + \frac{3}{2}H_2O \longrightarrow CaSO_4.2H_2O$$

(A) Reactant is calcium hemihydrate, product is Gypsum
(B) Reactant is Gypsum, product is calcium hemihydrate
(C) Reactant is Gypsum, product is calcium sulphate hemihydrate
(D) Reactant is calcium sulphate hemihydrate, product is Gypsum

Case 3 : A prism is a transparent refractive medium bounded by two plane surfaces inclined to each other at a certain angle. The refraction of light through a prism follows the laws of refraction. In the prism, refraction takes place on its refracting surface *i.e.*, entrance and exit. The refraction through a prism is shown in the figure. Here, A is the angle of the prism, $\angle i$ is the angle of incidence of the face AB and $\angle e$ is the angle of emergence at another face AC. The incident ray suffers a deviation or bending through an $\angle\delta$ due to the refraction through the prism. This angle is called the angle of deviation as shown in the figure:



$\angle\delta + \angle A = \angle \mathbf{i} + \angle \boldsymbol{e}$

57. The angle between the two refracting surfaces of a prism is called:
(A) Angle of prism (B) Angle of incidence
(C) Angle of deviation (D) Angle of emergence

58. The angle between the incident ray and the emergent ray is called:
(A) Angle of emergence (B) Angle of deviation
(C) Angle of incidence (D) Angle of the prism

59. When a ray is refracted through a prism, then:
(A) $\angle i = \angle\delta$ (B) $\angle i = \angle e + \angle\delta$ (C) $\angle\delta = \angle e$ (D) $\angle i > \angle r$

60. The angle of deviation depends upon:
(A) Refractive index of the prism (B) Angle of incidence
(C) Size of the prism (D) Both (A) and (B)

❑❑

Sample Paper 2

Science

Section – A

Section – A consists of 24 questions. Attempt any 20 questions from this section.
The first attempted 20 questions would be evaluated.

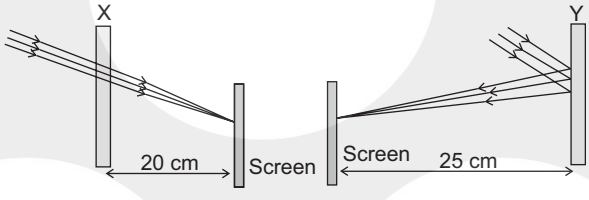
1. $Zn + HCl \longrightarrow ZnCl_2 + \ldots\ldots\ldots\ldots$

(A) H_2 (B) Cl_2 (C) Zn (D) None of these

2. A powdered salt (X) in a dry test tube was heated that evolves brown fumes of nitrogen dioxide and a yellow residue of lead oxide is also formed. The salt (X) is:

(A) $MgSO_3$ (B) $Pb(NO_3)_2$ (C) $(NH_4)_2SO_4$ (D) $CaCO_3$

3. Study the given ray diagrams and select the correct statement from the following:



(A) Device X is a concave mirror and device Y is a convex lens, whose focal lengths are 20 cm and 25 cm respectively.

(B) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 10 cm and 25 cm respectively.

(C) Device X is a concave lens and device Y is a convex mirror, whose focal lengths are 20 cm and 25 cm respectively.

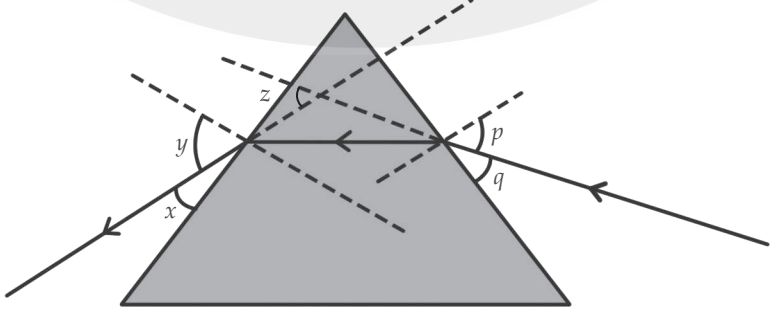
(D) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 20 cm and 25 cm respectively.

4. A few drops of iodine solution were added to rice water. The solution turned blue-black in colour. This indicates that rice water contains:

(A) Complex proteins (B) Simple proteins

(C) Starch (D) Fats

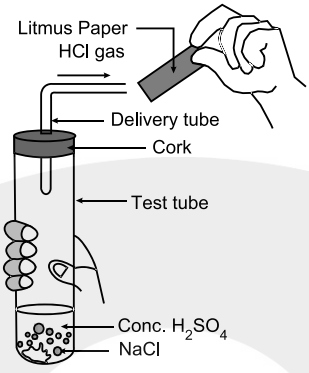
5. Study the following ray diagram:



In this diagram, the angle of incidence, the angle of emergence and the angle of deviation respectively have been represented by:

(A) y, p and z (B) x, q and z
(C) p, y and z (D) p, z and y

6. The figure given below represents the experiment carried out between conc. sulphuric acid and sodium chloride, which react with each other to form HCl gas.



Blue litmus paper is brought near the mouth of the delivery tube to check the presence of HCl acid but no change is observed in the colour of litmus paper because :
(A) The litmus paper used is dry
(B) The litmus paper used is moist
(C) Blue litmus paper does not change its colour with an acid
(D) The litmus paper is kept very close to the mouth of the delivery tube

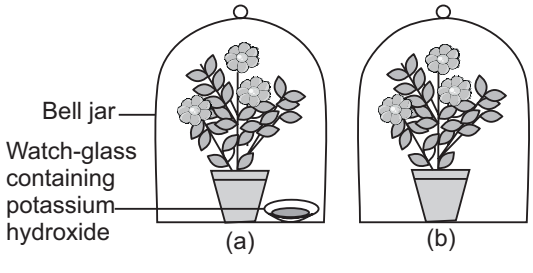
7. Identify the basic salt from the following salts :
(A) Na_2CO_3 (B) NH_4Cl
(C) $NaNO_3$ (D) KCl

8. In which part of alimentary canal food is finally digested ?
(A) Stomach (B) Mouth cavity
(C) Large intestine (D) Small intestine

9. To prepare a good temporary mount of the petunia leaf peel showing many stomata. From where the student will have to observe the peel? Give reason for your answer.
(A) tip of the leaf (B) upper surface of the leaf
(C) lower surface of the leaf (D) point of attachment of the leaf to its petiole

10. At noon, the sun appears white as:
(A) light is least scattered
(B) all the colours of the white light are scattered away
(C) blue colour is scattered the most
(D) red colour is scattered the most

11. Carbon dioxide is an important element for production of food by plants. With a help of the below experiment, it is demonstrated that photosynthesis cannot be possible without carbon dioxide.



What is the role of potassium hydroxide in the above demonstrated experiment:

(A) Hygroscopic (B) Absorb carbon dioxide
(C) Absorb oxygen (D) Absorb water

12. Match the following:

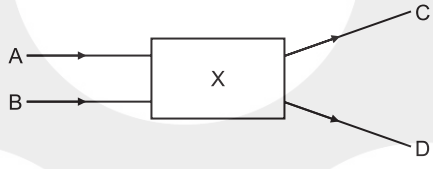
Column A	Column B
(I) Plane Mirror	(P) Virtual image
(II) Real Image	(Q) Cannot be taken on screen
(III) Virtual Image	(R) Can be taken on screen
(IV) Convex Mirror	(S) Lateral Inversion

(A) I-R, II-S, III-P, IV-Q (B) I-P, II-Q, III-R, IV-S
(C) I-S, II-R, III-Q, IV-P (D) I-Q, II-R, III-S, IV-P

13. Predict the metal when 2 mL each of concentrated HCl, HNO_3 and a mixture of concentrated HCl and concentrated HNO_3 in the ratio of 3: 1 were taken in test tubes labelled as A, B and C. A small piece of metal was put in each test tube. No change occurred in test tubes A and B but the metal got dissolved in test tube C respectively.

(A) Al (B) Au (C) Cu (D) Pt

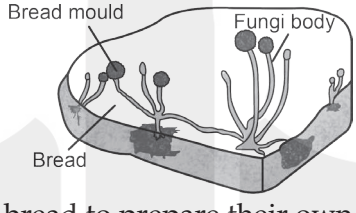
14. Light rays A and B fall on optical component X and come out as C and D.



The optical component is a:

(A) Concave lens (B) Convex lens
(C) Convex mirror (D) Prism

15. The image shows the bread moulds on a bread. How these fungi obtain nutrition?



(A) By using nutrients from the bread to prepare their own food.
(B) By allowing other organisms to grow on the bread and then consuming them.
(C) By breaking down the nutrients of bread and then absorbing them.
(D) By eating the bread on which it is growing.

16. Samples of five metals 'A', 'B', 'C', 'D' and 'E' were taken and added to the following solution one by one. The results obtained have been tabulated as follows:

	$FeSO_4$	$CuSO_4$	$ZnSO_4$	$AgNO_3$	$Al_2(SO_4)_3$	$MgSO_4$
A	No reaction	Displacement	No reaction	Displacement	No reaction	No reaction
B	Displacement	Displacement	No reaction	Displacement	No reaction	No reaction
C	No reaction	No reaction	No reaction	Displacement	No reaction	No reaction
D	No reaction	No reaction	No reaction	No reaction	No reaction	No reaction
E	Displacement	Displacement	Displacement	Displacement	No reaction	No reaction

Which of them is least reactive?

(A) A (B) C (C) D (D) E

17. Which of the following is the correct order of:

(A) Red > Green > Blue
(B) Blue > Yellow > Orange
(C) Orange > Red > Green
(D) Blue > Green > Violet

18. What would you observe if 'C' is added to $AgNO_3$?

(A) No reaction would occur
(B) C displace Ag to form C- Nitrate
(C) C- $AgNO_3$ complex is formed
(D) Water is liberated

19. Where an object should be placed in front of the concave mirror, so that its image can erect and large in size?

(A) At the centre of curvature (C) of the mirror
(B) At the focus point (*f*) of the mirror
(C) In between the centre of curvature (C) and the focus point (*f*) of the mirror
(D) In between the pole (P) and the focus point (*f*) of the mirror

20. Aluminium is used for making cooking utensils. Which of the following properties of aluminium are responsible for the same?

(I) Good thermal conductivity
(II) Good electrical conductivity
(III) Ductility
(IV) High melting point

(A) (I) and (II)
(B) (I) and (III)
(C) (II) and (III)
(D) (I) and (IV)

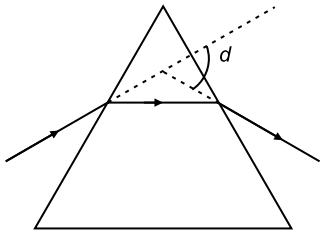
21. Which of the following statements is correct regarding the propagation of light of different colours of white light in the air?

(A) Red light moves fastest.
(B) Blue light moves faster than green light.
(C) All the colours of the white light move at the same speed.
(D) Yellow light moves with the mean speed as that of the red and violet light.

22. In photosynthesis, which substance are used up, which are produced and which are necessary, but remain unchanged after the reaction?

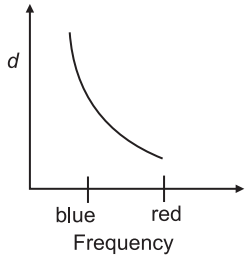
S. No.	Used up	Produced	Remain unchanged
A	Carbon dioxide	Water	Oxygen
B	Chlorophyll	Carbon dioxide	Water
C	Oxygen	Starch	Cellulose
D	Water	Oxygen	Chlorophyll

23. Light rays are deviated by a prim

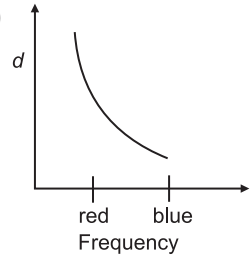


The deviation angle d is measured for light rays of different frequencies, including blue light and red light. Which graph is correct?

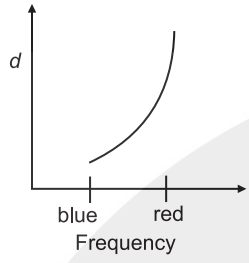
(A)



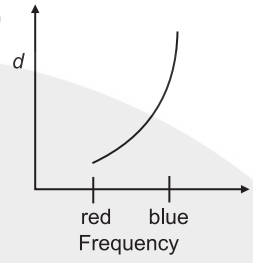
(B)



(C)



(D)



24. What is the nature of the new product which is formed by the action of water on quick lime ?

(A) Neutral (B) Acidic

(C) Amphoteric (D) Basic

Section - B

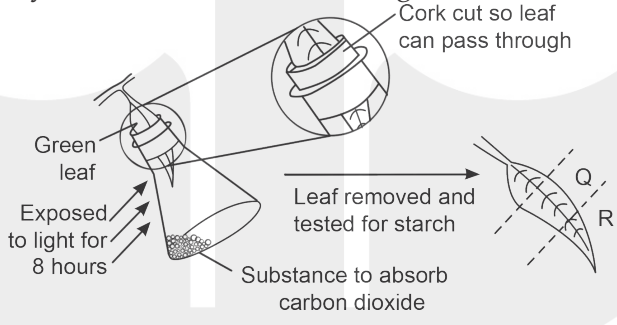
Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

The first attempted 20 questions would be evaluated.

25. An object is placed at a distance of 10 cm in front of a plane mirror, then the distance of image from mirror will be :

(A) 5 cm (B) 10 cm (C) 20 cm (D) 0

26. A plant is kept in the dark for two days. A leaf is used in an experiment to investigate the effect of two factors on photosynthesis as shown in the diagram.



What are the colours of Q and R, when the leaf is tested for starch, using iodine solution?

(A) Q-Blue/black, R-Brown (B) Q-Brown, R-Brown

(C) Q-Blue/black, R-Blue/black (D) Q-Brown, R-Blue/black

27. The following reaction is an example of $CaO(s) + H_2O(l) \longrightarrow Ca(OH)_2\ (aq)$.

(I) Displacement reaction

(II) Combination reaction

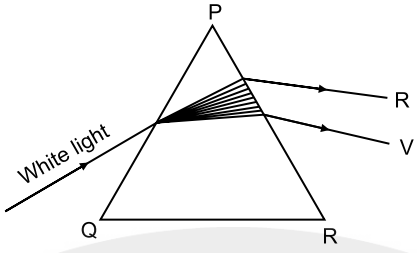
(III) Decomposition reaction

(IV) Exothermic reaction

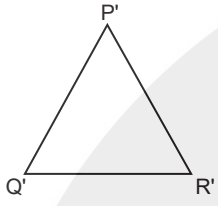
(A) Only (III) (B) (I) and (III)

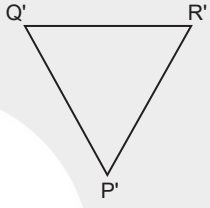
(C) (II) and (IV) (D) Only (I)

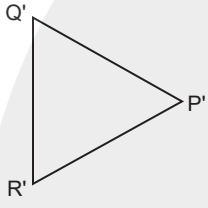
28. Two identical prisms PQR and P′Q′R′ are given. White light is passed through PQR as shown below.

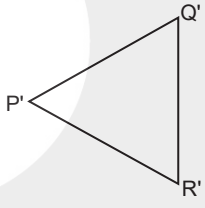


Which of the following position of P′Q′R′ will again yield white light?

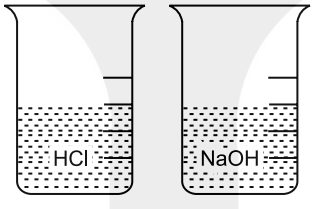
(A)


(B)


(C)


(D)


29. A student placed 10 mL HCl and NaOH in two separate breakers as shown.



Beaker 1 Beaker 2

In breaker 1, 4 mL of NaOH is added whereas in breaker 2, 4 mL of HCl is added. The student notes the possible changes in pH in both solutions.

	Change in pH (Beaker 1)	Change in pH (Beaker 2)
A	increase	increase
B	reduce	increase
C	increase	reduce
D	reduce	reduce

Which change in pH is correct ?

(A) A (B) B (C) C (D) D

30. The correct sequence of anaerobic reaction is yeast is:

(A) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Mitochondria}}$ Ethanol + Carbon dioxide

(B) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Cytoplasm}}$ Lactic acid

(C) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Mitochondria}}$ Lactic acid

(D) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Cytoplasm}}$ Ethanol + Carbon dioxide

Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

A. Both A and R are true and R is the correct explanation of A
B. Both A and R are true and R is not the correct explanation of A
C. A is true but R is false
D. A is false but R is true

31. **Assertion (A):** Chemical equations should be balanced.
Reason (R): As per the law of conservation of mass, mass can neither be created nor be destroyed.

32. **Assertion:** The rate of photosynthesis will be lowered if the leaves are coated with oil.
Reason: Stomata gets blocked and thus gaseous exchange is affected.

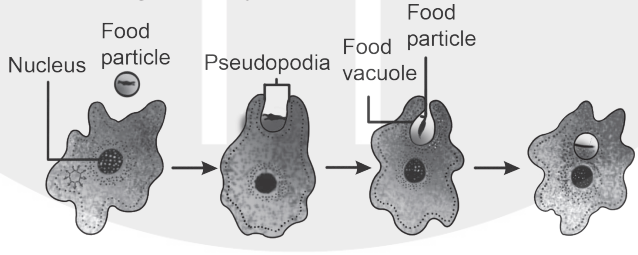
33. **Assertion (A):** When a piece of copper metal is added to dilute sulphuric acid, the solution turns blue.
Reason (R): Copper reacts with dilute sulphuric acid to form copper (II) sulphate solution.

34. **Assertion (A):** The air bubble shines in water.
Reason (R): Air bubble in water shines due to refraction of light.

35. A clear sky appears blue, because:
(A) blue light gets absorbed in the atmosphere.
(B) ultraviolet radiations are absorbed in the atmosphere.
(C) violet and blue lights get scattered more than the lights of all other colours by the atmosphere
(D) lights of all other colours is scattered more than the violet and blue colour lights by the atmosphere.

36. Which of the following reaction is characterised by the yellow colour of product?
(A) $Zn(s) + H_2SO_4 \longrightarrow ZnSO_4 + H_2$
(B) $Na_2CO_3 + H2SO_4 \longrightarrow NaSO_4 + H_2O + CO_2$
(C) $2Pb_3O_4 \xrightarrow{\Delta} 6PbO(s) + O_2(g)$
(D) $2KClO_3 \xrightarrow{\Delta} 2KCl + 3O_2(g)$

37. The image shows the human digestive system.



Digestion of food starts from which organ of the digestive system?
(A) Mouth due to the presence of saliva.
(B) Pancreases that releases juices for fat breakdown.
(C) Oesophagus that moves the food in gut.
(D) Stomach which helps in mixing food with digestive juices.

38. Which of the following is the correct order of speed of light in glass?
(A) Red > Green > Blue
(B) Blue > Green > Red
(C) Violet > Red > Green
(D) Green > Red > Blue

39. Calcium oxide can be reduced to calcium, by heating with sodium metal. Which compound would act as an oxidizing agent in the above process?

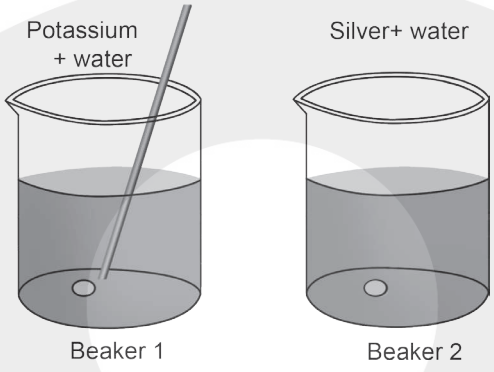
(A) sodium (B) sodium oxide (C) calcium (D) calcium oxide

40. During vigorous physical exercise, lactic acid is formed from glucose inside the muscle cells because:

(A) there is lack of oxygen (B) there is lack of water

(C) there is excess of carbon dioxide (D) None of the above

41. A student drops pieces of potassium and silver in breakers containing water. The image given below shows the reaction.



What are the products formed in each beaker?

(A) Beaker 1 : K_2O and H_2O; Beaker 2 : No reaction takes place

(B) Beaker 1 : KOH and H_2O; Beaker 2 : Ag_2O and H_2O

(C) Beaker 1 : K_2O and H_2O; Beaker 2 : AgO and H_2O

(D) Beaker 1 : KOH and H_2O; Beaker 2 : No reaction takes place

42. Which colour has the maximum frequency?

(A) Red (B) Violet (C) Blue (D) Green

43. The formation of quick lime and carbon dioxide from calcium carbonate is an example of:

(A) photochemical decomposition reaction (B) thermal decomposition reaction

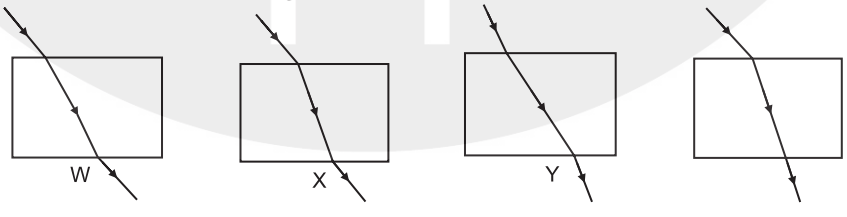
(C) oxidation reaction (D) displacement reaction

44. Villi present on the internal wall of intestine help in the:

(A) emulsification of fats (B) breakdown of proteins

(C) absorption of digested food (D) digestion of carbohydrates

45. The path of a ray of light coming from air passing through a rectangular glass slab traced by four students are shown as W, X, Y and Z in figure. Which one of them is correct?



(A) W (B) X (C) Y (D) Z

46. In the decomposition of lead (II) nitrate to give lead (II) oxide, nitrogen dioxide and oxygen gas, the coefficient of nitrogen dioxide (in the balanced equation) is:

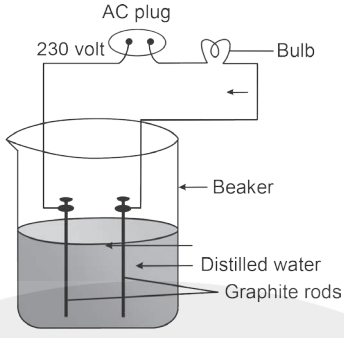
(A) 1 (B) 2 (C) 3 (D) 4

47. Which of the following is the correct order of wavelength?

(A) Red > Green > Yellow (B) Red > Violet > Green

(C) Yellow > Green > Violet (D) Red > Yellow > Orange

48. A student makes an arrangement to test the electrical conductivity of distilled water as shown.



The student observes that the bulb does not glow. What could be the reason the bulb does not glow?

(A) The water never conducts electricity

(B) The bulb needs DC source to glow

(C) The graphite is bad conductor of electricity

(D) The distilled water does not have ions present in it

Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

The first attempted 10 questions would be evaluated.

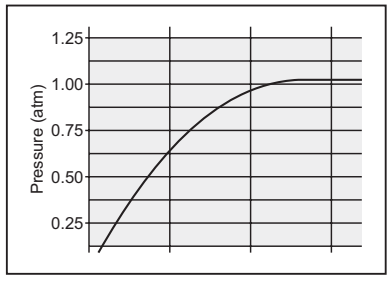
Case 1 : Marble's popularity began in ancient Rome and Greece, where white and off-white marble were used to construct a variety of structures, from hand-held sculptures to massive pillars and buildings.

49. The substance not likely to contain $CaCO_3$ is:

(A) Dolomite (B) A marble statue

(C) Calcined gypsum (D) Sea shells

50. A student added 10g of calcium carbonate in a rigid container, secured it tightly and started to heat it. After some time, an increase in pressure was observed, the pressure reading was then noted at intervals of 5 mins and plotted against time, in a graph as shown below. During which time interval did maximum decomposition took place?

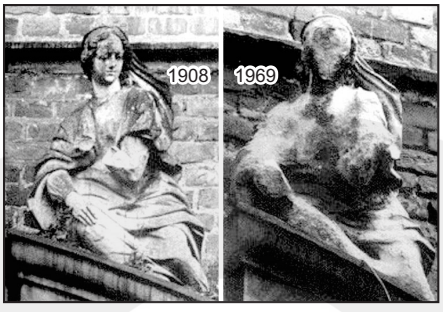


(A) 15-20 min (B) 10-15 min (C) 5-10 min (D) 0-5 min

51. Gas A, obtained above is a reactant for a very important biochemical process which occurs in the presence of sunlight. Identify the name of the process:

(A) Respiration (B) Photosynthesis (C) Transpiration (D) Photolysis

52. Marble statues are corroded or stained when they repeatedly come into contact with polluted rain water. Identify the main reason.



(A) decomposition of calcium carbonate to calcium oxide

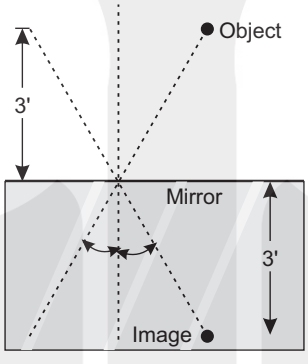
(B) polluted water is basic in nature hence it reacts with calcium carbonate

(C) polluted water is acidic in nature hence it reacts with calciumcarbonate

(D) calcium carbonate dissolves in water to give calcium hydroxide.

Case 2 : When you look at yourself in a mirror, you see your own image as if your exact twin are standing in front of you, but reversed right to left. The image appears as far into the mirror as you are in front of the mirror. If you step back, so does your image.

Image appears in mirrors because of how light is reflected by mirrors. As light is reflected from all surfaces, not just mirrors. But not all surfaces from images. The reason is the two types of reflections.



53. For a plane mirror image formed is:

(I) erect and virtual

(II) same size as the object

(III) laterally inverted

(A) only (I) is correct (B) only (II) is correct

(C) (II) and (III) are correct (D) All (I), (II) and (III) are correct

54. In a plane mirror, the image formed is:

(A) behind the mirror (B) infront of the mirror

(C) both (A) and (B) (D) none of these

55. A plane mirror reflects a pencil of light to form a real image. Then the pencil of light incident on the mirror is:

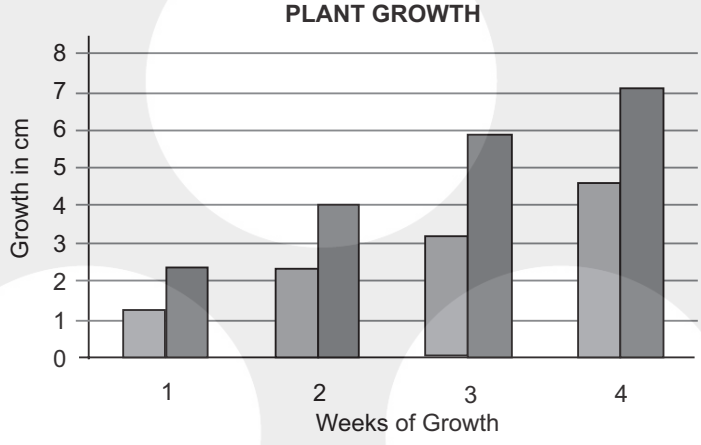
(A) parallel (B) convergent (C) divergent (D) none of these

56. What should be the angle between two plane mirrors so that whatever be the angle of incidence, the incident ray and the reflected ray from the two mirrors be parallel to each other?

(A) 60° (B) 90° (C) 120° (D) 175°

Case 3 : Like humans, plants also need to maintain the vital functions even when they are not doing anything particular. These maintenance processes are needed to prevent damage and break-down, energy is needed for them. This energy comes from outside the body of the individual organism. So, there must be a process to transfer a source of energy from outside the body of the organism, the outside sources of energy could be quite varied, since the environment is not under the control of the individual organism. These sources of energy, therefore, need to be broken down or built up in the body, and must be finally converted to a uniform source of energy that can be used for the various molecular movements needed for maintaining living structures, as well as to the kind of molecules the body needs to grow.

The following graph shows the growth of plants A and B over the period of weeks.



57. Roots of the plants absorb water from the soil through the process of:

(A) Diffusion (B) Transpiration

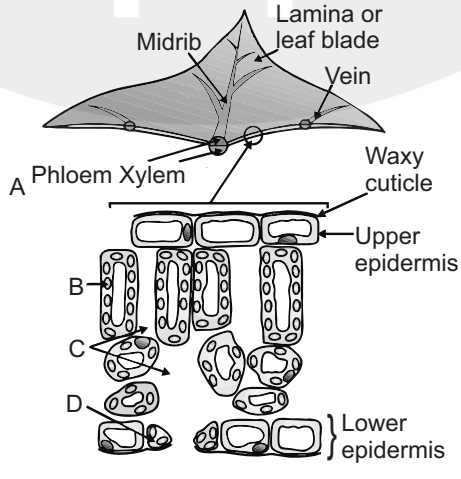
(C) Osmosis (D) None of these

58. What is the energy currency of the cell?

(A) Adenosine triphosphorous (B) Adenosine tetraphosphorous

(C) Adenosine triphosphate (D) Adenosine diphosphate

59. The following diagram show the cross-section of leaf.



Choose the correct option with respect to the function of labelled parts.

(A) A- helps in transportation of gases throughout the length of plants

(B) B- convert chemical energy into light energy via the photosynthetic process.

(C) C- allows gaseous exchange between the leaf and the outside atmosphere through the stomata

(D) D- guard cells from pathogen attacks

60. Plants can get rid of excess water by .....

(A) Transpiration (B) Translocation

(C) Photosynthesis (D) Diffusion

❑❑

Sample Paper 3

Science

Section – A

Section – A consists of 24 questions. Attempt any 20 questions from this section.
The first attempted 20 questions would be evaluated.

1. What is the nature of the new product which is formed by the action of water on quick lime ?
(A) Neutral (B) Acidic (C) Amphoteric (D) Basic

2. A student obtains a blurred image of a distant object on a screen using a convex lens. To obtain a distinct image on the screen he should move the lens :
(A) away from the screen
(B) towards the screen
(C) to a position very far away from the screen.
(D) either towards or away from the screen depending upon the position of the object.

3. If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will not take place properly?
(A) Proteins breaking down into amino acids
(B) Starch breaking down into sugars
(C) Fats breaking down into fatty acids and glycerol
(D) Absorption of vitamins

4. Phenolphthalein turns acids to …….. solution.
(A) Colourful (B) Colourless (C) Pink (D) Orange

5. Identify the incorrect statement:
(A) Ionic compounds are usually brittle
(B) Sharing of electrons is involved in ionic bonds
(C) Common salt is an ionic compound
(D) Ions are fundamental units of ionic compounds

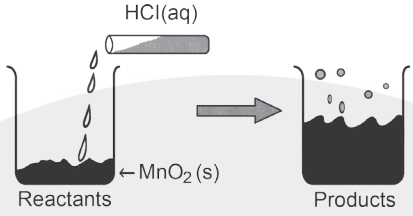
6. A real image is formed by the light rays after reflection or refraction when they
(I) actually meet or intersect with each other.
(II) actually converge at a point.
(III) appear to meet when they are produced in the backward direction.
(IV) appear to diverge from a point.
Which of the above statements are correct ?
(A) (I) and (IV) (B) (II) and (IV)
(C) (I) and (II) (D) (II) and (III)

7. Bile from the liver is received in which part of the alimentary canal?
(A) Stomach (B) Small intestine
(C) Large intestine (D) Oesophagus

8. What will be the position and nature of the image of an object formed by a concave mirror placed between focus (*f*) and pole (P) of the mirror?

(A) In between pole (P) and focus (*f*) in front of mirror, virtual and erect
(B) In between pole (P) and focus (*f*) in front of mirror, virtual and inverted
(C) Behind the mirror, real and erect
(D) Behind the mirror, virtual and erect

9. The reaction between MnO_2 and HCl is depicted in the following diagram. It was observed that a gas with bleaching abilities was released.



Chlorine gas reacts with ..... to form bleaching powder.
(A) dry $Ca(OH)_2$
(B) dil. solution of $Ca(OH)_2$
(C) conc. solution of $Ca(OH)_2$
(D) dry CaO

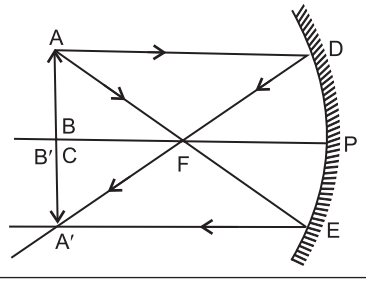
10. Which among the following statement(s) is (are) true? Exposure of silver chloride to sunlight for a long duration turns grey due to :
(i) The formation of silver by decomposition of silver chloride.
(ii) Sublimation of silver chloride.
(iii) Decomposition of chlorine gas from silver chloride.
(iv) Oxidation of silver chloride.
(A) (i) only
(B) (i) and (iii)
(C) (ii) and (iii)
(D) (iv) only

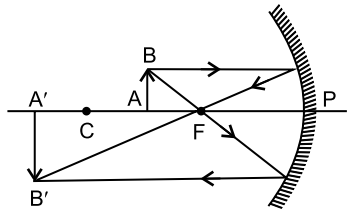
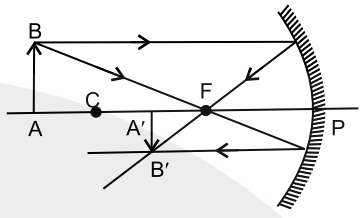
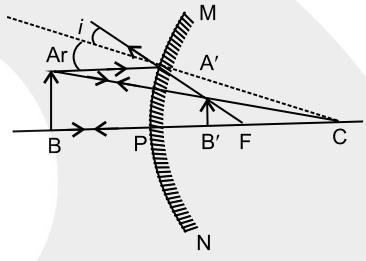
11. Which among the following forms a cation?
(A) Oxygen
(B) Neon
(C) Potassium
(D) Fluorine

12. Which of the statement is correct regarding the propagation of light of different colours of white light in air?
(A) Red light moves the fastest.
(B) Blue light moves faster than green light.
(C) All the colours of the white light travel with the same speed.
(D) Yellow light moves with the mean speed as that of red and the violet light.

13. In which of the following group of organisms, food material is broken down outside the body and absorbed ?
(A) Mushroom, green plants, amoeba
(B) Yeast, mushroom, bread mould
(C) Paramecium, amoeba, cuscuta
(D) Cuscuta, lice, tapeworm

14. Match Column I with Column II and choose the most appropriate option from the codes given below:

Column I (Nature and size of image)	**Column II (Ray diagram)**
(A) Virtual, erect and diminished	(i) 

(B) Real, inverted and same size as that of object	(ii) 
(C) Real, inverted and enlarged	(iii) 
(D) Real, inverted and diminished	(iv) 

Codes:

	A	B	C	D
(A)	(i)	(ii)	(iii)	(iv)
(B)	(iv)	(i)	(ii)	(iii)
(C)	(iv)	(iii)	(ii)	(i)
(D)	(i)	(iii)	(iv)	(ii)

15. A student added dilute HCl to a test tube containing zinc granules and made following observations:

(A) the zinc surface became dull and black

(B) a gas is evolved which burns with a pop sound

(C) the solution remained colourless

(D) the solution becomes green in colour

16. Which of the following substance will not give carbon dioxide on treatment with dilute acid?

(A) Marble (B) Limestone

(C) Baking soda (D) Lime

17. Danger signals are always painted in red. Choose the incorrect statement.

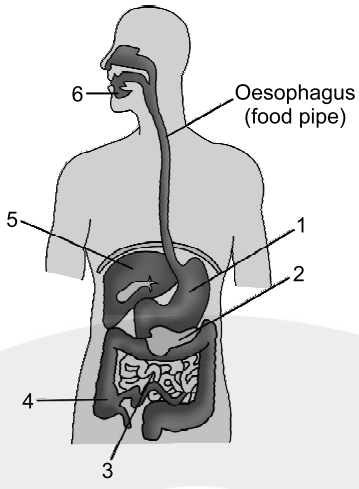
(A) Red light can be seen from the farthest distance

(B) The wavelength of red light is maximum

(C) Scattering of red light is least

(D) Red is the colour of courage and fear

18. The diagram shows the human gut. Which numbered structures secrete digestive enzymes?

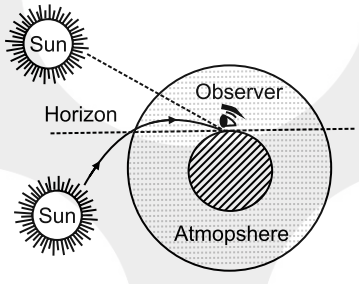


(A) 1, 2, 3, and 4 (B) 1, 2, 3 and 6 (C) 2, 3, 4 and 5 (D) 2, 3, 5 and 6

19. The pH range most conducive for life of fresh water plants and animals is :

(A) 6.5–7.5 (B) 2.0–3.5 (C) 3.5–5.0 (D) 9.0–10.5

20. Which phenomenon is depicted in the diagram given below?



(A) Early sunrise and late sunset

(B) Change in shape of the sun during sunrise and at moon

(C) Both (A) and (B)

(D) Neither (A) or (B)

21. Which of the following can change to an anion?

(A) Xenon (B) Iodine (C) Calcium (D) Magnesium

22. Which of the following statements are correct regarding the propagation of light of different colours of white light in air?

(A) Red light moves fastest

(B) Blue light moves faster than great light

(C) All the colours of the white light move with the same speed

(D) Yellow light moves with the mean speed as that of the red and the violet light

23. Which of the following statements about the autotrophs is incorrect?

(A) They synthesise carbohydrates from carbon dioxide and water in the presence of sunlight and chlorophyll.

(B) They store carbohydrates in the form of starch.

(C) They convert carbon dioxide and water into carbohydrates in the absence of sunlight.

(D) They constitute the first trophic level in food chains.

24. Ionic compounds are soluble in which of the following?

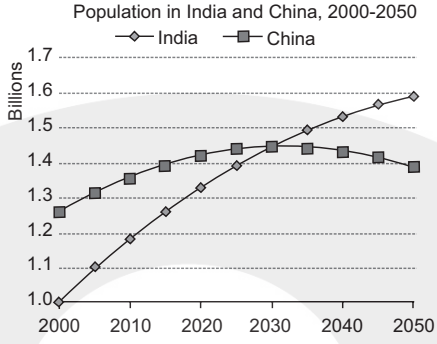
(A) Petrol (B) Water (C) Kerosene (D) Edible oil

Section - B

Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

The first attempted 20 questions would be evaluated.

25. Which of the following is NOT the effect of overpopulation?



(A) Poverty (B) Unemployment (C) Pollution (D) Casteism

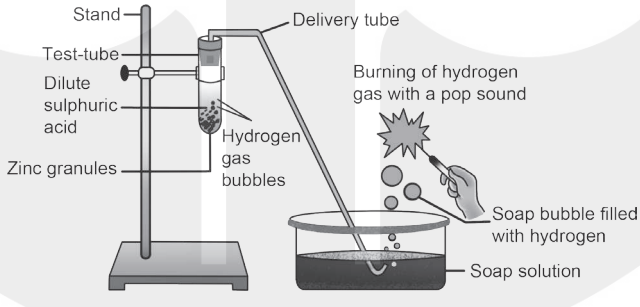
26. Refractive index of diamond with respect to glass is 1.6. If the absolute refractive index of glass is 1.5, then the absolute refractive index of diamond is:

(A) 1.4 (B) 2.4 (C) 3.4 (D) 4.4

27. When a person eats some egg white, proteins and water enter the stomach. Which substances are found leaving the stomach and leaving the small intestine?

S. No.	Leaving the Stomach	Leaving the small Intestine
A	Amino acids and water	Amino acids and water
B	Fatty acids, glycerol and water	Fatty acids, glycerol and water
C	Protein and water	Fatty acids and glycerol
D	Protein, amino acids and water	Water

28. Study the given experimental set-up and answer the following questions.

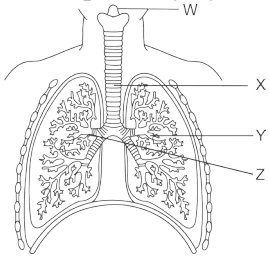


The above experimental set up shows reaction between metal and :

(A) Acid (B) Metal carbonate

(C) Metal hydrogen carbonate (D) Metal oxide

29. The diagram shows part of the human respiratory system.



What are W, X, Y and Z ?

(A) Branches-W, Bronchiole-X, Larynx-Z, Rings of cartilage-Y

(B) Branches-X, Bronchiole-Z, Larynx-Y, Rings of cartilage-W

(C) Branches-Y, Bronchiole-W, Larynx-X, Rings of cartilage-Z

(D) Branches-Z, Bronchiole-Y, Larynx-W, Rings of cartilage-X

30. Twinkling of stars is due to atmospheric:

(A) dispersion of light by water droplets

(B) refraction of light by different layers of varying refractive indices

(C) scattering of light by dust particles

(D) internal reflection of light by clouds

Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

A. Both A and R are true and R is the correct explanation of A

B. Both A and R are true and R is not the correct explanation of A

C. A is true but R is false

D. A is false but R is true

31. **Assertion:** Zinc fails to evolve hydrogen gas on reacting with dilute nitric acid.

Reason: It gives the hydrogen gas on reaction with ammonia.

32. **Assertion:** Left atrium possesses the thickest muscles.

Reason: Left atrium receives oxygenated blood from the lungs.

33. **Assertion:** A chemical reaction becomes faster at higher temperatures.

Reason: At higher temperatures, molecular motion becomes more rapid.

34. **Assertion :** Convex mirrors are used for rear view on vehicles.

Reason : The size of the image formed by a convex mirror will be same.

35. Match the following columns and select the most appropriate options from the codes given below:

Column I	Column II
A. Nephridia	1. Glomerulus
B. Bowman's capsule	2. Kidney
C. Osmoregulation	3. Dialysis
D. Kidney Failure	4. Pale yellow
E. Urine	5. Earthworm

Codes:

	A	B	C	D	E
(A)	5	1	2	3	4
(B)	1	2	5	4	3
(C)	2	4	3	1	5
(D)	5	2	4	3	1

36. Which of the statements about the reaction below are incorrect?

$$2PbO\,(s) + C(s) \longrightarrow 2Pb(s) + CO_2(g)$$

(A) Lead is getting reduced.

(B) Carbon dioxide is getting oxidised

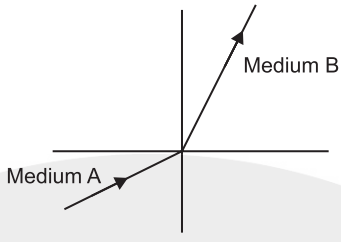
(C) Carbon is getting oxidised.

(D) Lead oxide is getting reduced.

Choose the correct statements from choices:

(A) (A) and (B) (B) (A) and (C) (C) (A), (B) and (C) (D) All of these

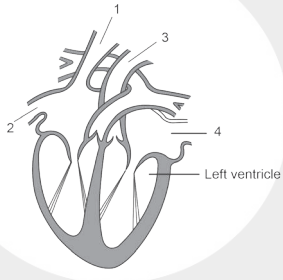
37. A light ray enters from medium A to medium B as shown in the figure. The refractive index of medium B relative to A will be



(A) greater than unity (B) less than unity

(C) equal to unity (D) zero

38. The diagram shows a vertical section through the heart.



What are the functions of the numbered blood vessels?

(A) Carries blood to body-1, Carries blood to lungs-2, Carries blood from lungs-3, Carries blood from body-4

(B) Carries blood to body-1, Carries blood to lungs-3, Carries blood from lungs-4, Carries blood from body-2

(C) Carries blood to body-2, Carries blood to lungs-4, Carries blood from lungs-3, Carries blood from body-1

(D) Carries blood to body-3, Carries blood to lungs-1, Carries blood from lungs-4, Carries blood from body-2

39. Consider these statements about ionic compounds:

(I) They conduct electricity in solid-state

(II) They conduct electricity in solutions.

(III) They conduct electricity in the molten state.

Choose the correct option:

(A) (I) only (B) (II) only (C) (III) only (D) (II) and (III) only

40. Which of the following phenomena of light are involved in the formation of a rainbow?

(A) Reflection, refraction and dispersion

(B) Refraction, dispersion and total internal reflection

(C) Refraction, dispersion and internal reflection

(D) Dispersion, scattering and total internal reflection

41. The ability of metals to be drawn into thin wire is known as:

(A) Ductility (B) Malleability (C) Sonorousity (D) Conductivity

42. To an astronaut in a spaceship, the colour of the earth appears:

(A) Red (B) Blue (C) White (D) Black

43. During vigorous physical exercise, lactic acid is formed from glucose inside the muscle cells because:

(A) there is lack of oxygen

(B) there is lack of water

(C) there is excess of carbon dioxide

(D) None of the above

44. Which of the following is exothermic reaction?

(A) Dissolution of sodium hydroxide in water

(B) Evaporation of water

(C) Sublimation of silver chloride

(D) Dissolution of salt in water

45. At the time of sunrise and sunset, the light from the sun has to travel:

(A) Longest distance through the atmosphere

(B) Shortest distance through the atmosphere

(C) Double distance of what it travels during the daytime

(D) Half the distance of what it travels during the daytime

46. The colour of the sky appears blue due to:

(A) Refraction of light through the atmosphere

(B) Dispersion of light through the air molecules

(C) Scattering of light by air molecules.

(D) All of the above

47. Which of the following statements is not correct?

(A) All metal carbonates react with acid to give a salt, water and carbon dioxide

(B) All metal oxides react with water to give salt and acid

(C) Some metals react with acids to give salt and hydrogen

(D) Some non-metal oxides react with water to form an acid

48. At the time of sunset:

(A) Blue colour is scattered and red colour reaches our eye

(B) Red colour is scattered and blue colour reaches our eye

(C) Green and blue scattered and orange reaches our eye

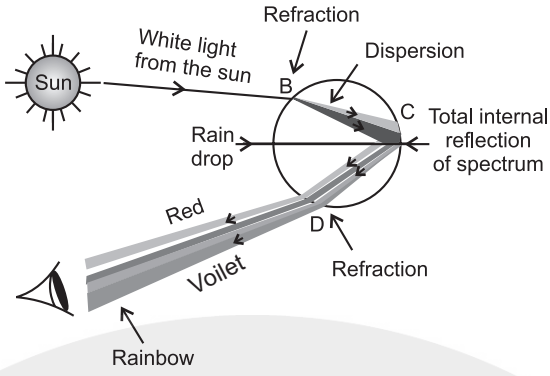
(D) Yellow colour is scattered and violet reaches our eye

Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

The first attempted 10 questions would be evaluated.

Case 1 : A rainbow is a natural spectrum appearing in the sky after a rain. It is produced by dispersion of sunlight by tiny water droplets, present in the atmosphere. The water droplets act like small prism. After the dispersion of light and internal reflections, the band of colours reaches observer's eye in the form of rainbow. A rainbow is always formed in the direction opposite to that of the sun.



49. Pick the correct statement from the following:

(A) Primary rainbow is a virtual image and secondary rainbow is a real image

(B) Primary rainbow is a real image and secondary rainbow is a virtual image

(C) Both primary and secondary rainbows are virtual images

(D) Both primary and secondary rainbows are real images

50. In the formation of a rainbow light from the sun on water droplets undergoes:

(A) Dispersion only (B) only total internal reflection

(C) Dispersion and total internal reflection (D) None of these

51. ..... does not occur during the formation of rainbow:

(A) Refraction (B) Dispersion (C) Reflection (D) Induction

52. Mirage is an example of:

(A) refraction of light only

(B) total internal reflection of light only

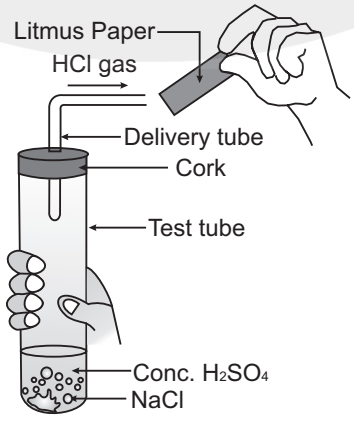
(C) refraction and total internal reflection of light

(D) dispersion of light only

Case 2 : Chemical reactions are chemical changes in which reactants transform into products by making or breaking of bonds (or both) between different atoms. A chemical reaction can be determined with the help of any of the following observations:

- Evolution of a gas
- Change in temperature
- Formation of a precipitate
- Change in colour
- Change of state

53. The figure given below represents the experiment carried out between conc. sulphuric acid and sodium chloride, which react with each other to form HCl gas.



Blue litmus paper is brought near the mouth of the delivery tube to check the presence of HCl acid but no change is observed in the color of litmus paper because:

(A) The litmus paper used is dry.

(B) The litmus paper used is moist.

(C) Blue litmus paper does not change its color with an acid.

(D) The litmus paper is kept very close to the mouth of the delivery tube.

54. Which of the following indicators turn red in an acidic solution?

(A) Phenolphthalein (B) Litmus (C) Turmeric (D) Methyl orange

Choose the correct option:

(A) (A) and (B) (B) (B) and (C) (C) Only (B) (D) (B) and (D)

55. Methyl orange is:

(A) Pink in acidic medium, yellow in basic medium

(B) Yellow in acidic medium, pink in basic medium

(C) Colourless in acidic medium, pink in basic medium

(D) Pink in acidic medium, colourless in basic medium.

56. The function of quick lime in soda lime mixture is to:

(A) Absorb moisture present in soda lime (B) Increase the efficiency of soda lime

(C) Increase the pH of soda lime (D) Take part in reaction with NaOH

Case 3 : The sexual mode of reproduction incorporates such a process of combining DNA from two different individuals during reproduction. Each new generation is to be the combination of the DNA copies from two pre-existing individuals.

57. Sexual reproduction promotes diversity of characters in the offspring. Why?

(A) Offspring is the result of combination of DNA copies from more than two parent cells

(B) It leads to variation, which is necessary for evolution.

(C) It leads to change in number of DNA in offspring.

(D) Sexual reproduction is a complex process and produce errors, leading to diversity.

58. Characters transmitted from parents to offspring are present in:

(A) Cytoplasm (B) Ribosome (B) Golgi bodies (D) Genes

59. Which among the following diseases is NOT sexually transmitted?

(A) Syphilis (B) Diabetes (C) HIV-AIDS (D) Gonorrhoea

60. Which of the following is correct?

	Sexual reproduction	Asexual reproduction
(A)	Involve two or more parents	Involves only one parent
(B)	Mitosis and meiosis both cell divisions are included	Only mitosis cell division is involved
(C)	Variations are absent	Variations are present
(D)	Gametes are produced	Gametes are not produced

❑❑

Sample Paper 4

Science

Section - A

Section – A consists of 24 questions. Attempt any 20 questions from this section.
The first attempted 20 questions would be evaluated.

1. The reaction which decomposes after the supply of heat is called …….. .
(A) Thermal decomposition (B) Combination reaction
(C) Redox reaction (D) Displacement reaction

2. In which part of alimentary canal food is finally digested ?
(A) Stomach (B) Mouth cavity
(C) Large intestine (D) Small intestine

3. Which of the following phenomena contributes significantly to the reddish appearance of the sun at sunrise or sunset?
(A) Dispersion of light (B) Scattering of light
(C) Total Internal Reflection of light (D) Reflection of light from Earth

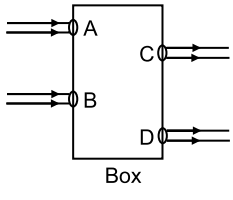
4. Phenolphthalein turns acids to …….. solution.
(A) Colourful (B) Colourless (C) Pink (D) Orange

5. What is the nature of the new product which is formed by the action of water on quick lime ?
(A) Neutral (B) Acidic (C) Amphoteric (D) Basic

6. Choose the function of pancreatic juice from the following :
(A) Trypsin digests proteins and lipase digests carbohydrates
(B) Trypsin digests emulsified fats and lipase digests proteins
(C) Trypsin and lipase digests fats
(D) Trypsin digests proteins and lipase digests emulsified fats

7. Which of the following equations in the correct summary of photosynthesis?
(A) $6CO_2 + 12H_2O \longrightarrow C_6H_{12}O_6 + 6O_2 + 6H_2O$
(B) $6CO_2 + H_2O + \text{Sunlight} \longrightarrow C_6H_{12}O_6 + O_2 + 6H_2O$
(C) $6CO_2 + 12H_2O \xrightarrow[\text{Sunlight}]{\text{Chlorophyll}} C_6H_{12}O_6 + 6O_2$
(D) $6CO_2 + 12H_2O \xrightarrow[\text{Sunlight}]{\text{Chlorophyll}} C_6H_{12}O_6 + 6CO_2 + 2H_2O$

8. Beans of light are incident throught the holes A and B and emerge out of box through the holes C and D respectively as shown in the figure. Which of the following could be inside the box?

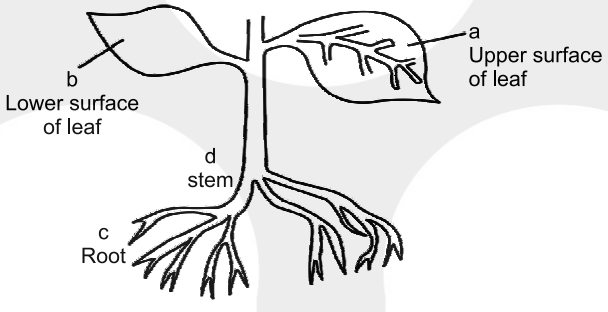


(A) A rectangular glass slab (B) A convex lens
(C) A concave lens (D) A prism

9. In a double displacement reaction such as the reaction between sodium sulphate solution and barium chloride solution:
(i) exchange of atoms takes place. (ii) exchange of ions takes place.
(iii) a precipitate is produced. (iv) an insoluble salt is produced.
The correct option is :
(A) (ii) and (iv) (B) (i) and (iii)
(C) only (ii) (D) (ii), (iii) and (iv)

10. Suppose you have focussed on a screen the image of candle flame placed at the farthest end of the laboratory table using a convex lens. If your teacher suggests you to focus the parallel rays of the sun, reaching your laboratory table, on the same screen, what you are expected to do is to move the :
(A) lens slightly towards the screen
(B) lens slightly away from the screen
(C) lens slightly towards the sun
(D) lens and screen both towards the sun

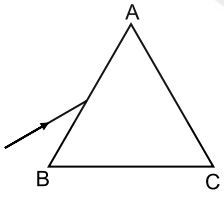
11. The diagram shows parts of the flowering plant. Where does the most transpiration take place?

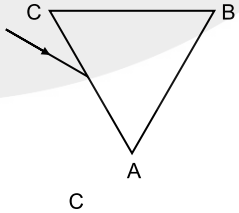


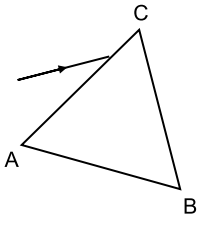
(A) Upper surface of leaf (B) Lower surface of leaf
(C) Root (D) Stem

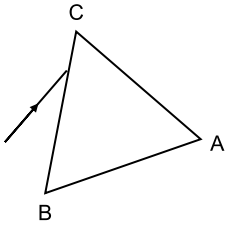
12. Which of the following reactions is responsible for shiny finish of the walls?
(A) $CaCO_3$ (B) CaO
(C) $Ca(OH)_2$ (D) Ca

13. A prism ABC (with BC as base) is placed in different orientations as shown in figure. A narrow beam of white light is incident on the prism as shown in figure. In which of the following cases, after dispersion, the third colour form the top corresponds to the colour of the sky?

(i)


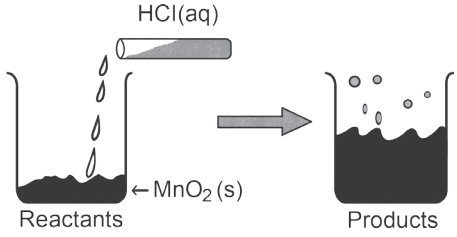
(ii)


(iii)


(iv)


(A) (i) (B) (ii) (C) (iii) (D) (iv)

14. The reaction between MnO_2 with HCl is depicted in the following diagram. It was observed that a gas with bleaching abilities was released.



Identify the correct statement from the following:

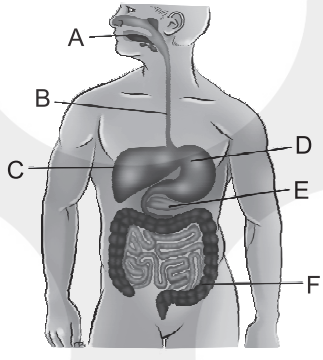
(A) MnO_2 is getting reduced whereas HCl is getting oxidized.

(B) MnO_2 is getting oxidized whereas HCl is getting reduced.

(C) MnO_2 and HCl both are getting reduced.

(D) MnO_2 and HCl both are getting oxidized.

15. The given diagram is of human digestive human. Study the diagram and answer any of the four questions from Q. 1 :



Which of these correctly represent the labels, B, C, D and E?

(A) B-Oesophagus, C-Liver, D-Stomach, E-pancreas

(B) B-Pancreas, C-Oesophagus, D-Liver, E-Stomach

(C) B-Stomach, C-Pancreas, D-Oesophagus, E-Liver

(D) B-Liver, C-Stomach, D-Pancreas, E-Oesophagus

16. Which of the following reaction shows that the given oxide is amphoteric in nature?

(A) $2Zn + O_2 \xrightarrow{\Delta} 2ZnO$

(B) $ZnO + H_2SO_4 \longrightarrow ZnSO_4 + H_2O(l)$

(C) $ZnO + 2NaOH \longrightarrow Na_2ZnO_2 + H_2O(l)$

(D) (B) and (C) together

17. At noon the sun appears white as:

(A) Its light is least scattered

(B) All the colours of the white light are scattered away

(C) Blue colour is scattered the most

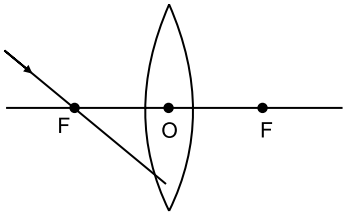
(D) Red colour is scattered the most

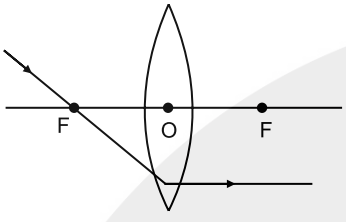
18. Which of the following structures is involved in gaseous exchange in woody stem of a plant?

(A) Stomata (B) Lenticel

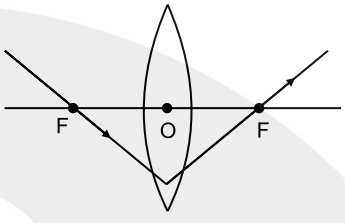
(C) Guard cell (D) Epidermis

19. Which of the following ray diagrams is correct for the ray of light incident on a lens shown in figure?

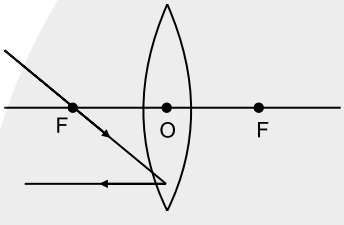




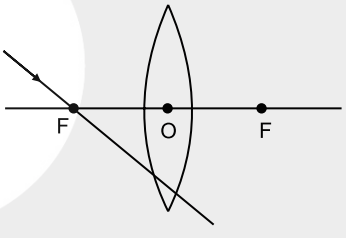
(A)



(B)



(C)



(D)

(A) A (B) B (C) C (D) D

20. The compound obtained on reaction of iron with steam is/are:

(A) Fe_2O_3 (B) Fe_3O_4 (C) FeO (D) Fe_2O_3 and Fe_3O

21. Is it really true or a myth that starts appear higher than they actually are? If yes, then which phenomenon is responsible for it?

(A) Myth (B) Yes, refraction of light

(C) Yes, atmospheric refraction of light (D) Yes, dispersion of light

22. A solution with pH = 8 will have the number of H^+ ions:

(A) 10^8 (B) 10^{-8} (C) 100^8 (D) $Log10^8$

23. In which of the following groups of oragnism, food material is broken down outside the body and absorbed?

(A) Mushroom, green plants, *Amoeba* (B) Yeast, mushroom, brad mould

(C) *Paramecium*, *Amoeba*, *Cuscuta* (D) *Cuscuta*, lice, tapeworm

24. In absence of atmosphere, the colour of the sky appears:

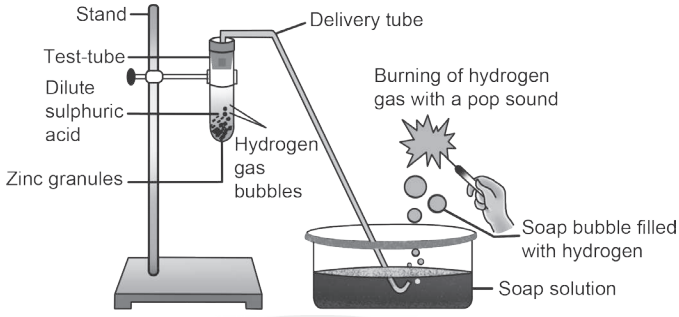
(A) Blue (B) Black (C) Red (D) Yellow

Section - B

Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

<u>The first attempted 20 questions would be evaluated.</u>

25. Study the given experimental set-up and answer the following questions:



Which gas is liberated during the process?

(A) Hydrogen (B) Carbon dioxide gas

(C) Nitrogen gas (D) Hydrogen sulphide gas

26. In which order do these events occur in human nutrition?

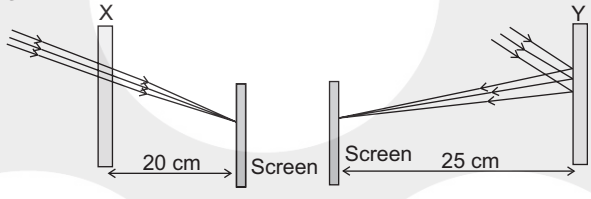
(A) Digestion → ingestion → absorption → assimilation

(B) Digestion → ingestion → assimilation → absorption

(C) Ingestion → digestion → absorption → assimilation

(D) Ingestion → digestion → assimilation → absorption

27. Study the given ray diagrams and select the correct statement from the following:



(A) Device X is a concave mirror and device Y is a convex lens, whose focal lengths are 20 cm and 25 cm respectively.

(B) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 10 cm and 25 cm respectively.

(C) Device X is a concave lens and device Y is a convex mirror, whose focal lengths are 20 cm and 25 cm respectively.

(D) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 20 cm and 25 cm respectively.

28. To indicate the presence of gaseous reactant or product, we use the symbol:

(A) (Product) (*g*) or (Reactant) (*g*) (B) (Product) ↑ or (Reactant) ↑

(C) (Product) ↓ or (Reactant) ↓ (D) Both (A) and (B)

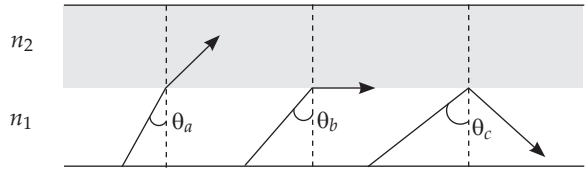
29. Choose the forms in which most plants absorb nitrogen:

(i) Proteins (ii) Nitrates and Nitrites

(iii) Urea (iv) Atmospheric nitrogen

(A) (i) and (ii) (B) (ii) and (iii) (C) (iii) and (iv) (D) (i) and (iv)

30. This figure shows a light ray travelling from medium with refractive index n_1 to a different medium with refractive index n_2. It shows the bending of light ray due to a change in medium which is called 'Refraction'.



Which is correct if total internal reflection occurs in medium 1 (with refractive index n_1)

(A) $n_2 > n_1$ (B) $n_1 = n_2$

(C) $n_1 > n_2$ (D) TIR does not depend upon refractive index

Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

A. Both A and R are true and R is the correct explanation of A
B. Both A and R are true and R is not the correct explanation of A
C. A is true but R is false
D. A is false but R is true

31. **Assertion:** Hydrogen peroxide is kept in coloured bottles.
Reason: Hydrogen peroxide is a moderately reactive metal that can react with light or heat slowly to produce water.

32. **Assertion:** The nature of the image formed by a concave mirror is real and inverted.
Reason: The image formed by a concave mirror depends on the position of the object at infinity.

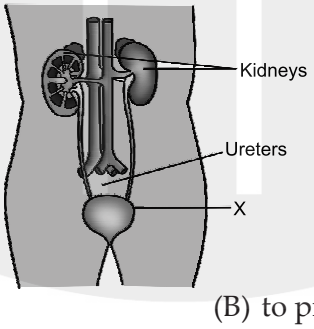
33. **Assertion:** Urinary bladder and ureters are lined by transitional epithelium.
Reason: Ureters carry the urine to urinary bladder where it is stored temporarily.

34. **Assertion:** After white washing the walls, a shiny white finish on walls is obtained after two to three days.
Reason: Calcium oxide reacts with carbon dioxide to form calcium hydrogen carbonate which gives shiny white finish.

35. Rays from sun converge at a point 15 cm in front of a concave mirror. Where should an object be placed so that size of its image is equal to the size of the object?
(A) 15 cm in front of the mirror
(B) 30 cm in front of the mirror
(C) Between 15 cm and 30 cm in front of the mirror
(D) More than 30 cm in front of the mirror

36. Choose the incorrect statement:
(A) An increase in pH value from 7 to 14 indicates an increase in hydrogen ions
(B) The strength of an acid or base is determined by a universal indicator
(C) pH < 7 indicates that the solution is acidic
(D) Higher the hydrogen ion concentration, lower the pH value

37. The diagram given below shows the human excretory system. Identify the function of part labelled as X:



(A) to excrete urea
(B) to produce urea
(C) to produce urine
(D) to store urine

38. Match the acids given in Column I with their correct source given in Column II and select the correct answer using the options given below:

Column I	Column II
A. Lactic acid	1. Tomato
B. Citric acid	2. Curd
C. Acetic acid	3. Oranges
D. Oxalic acid	4. Vinegar

Codes:

	A	B	C	D
(A)	1	3	2	4
(B)	3	1	4	2
(C)	4	2	1	3
(D)	2	3	4	1

39. Overall, what is the energy conversion summary in the process of photosynthesis?
(A) Heat energy is converted into mechanical energy
(B) Heat energy is converted into chemical energy
(C) Light energy is converted into chemical energy
(D) Light energy is converted into mechanical energy

40. What happens when calcium is treated with water?
(I) It does not react with water.
(II) It reacts violently with water.
(III) It reacts less violently with water.
(IV) Bubbles of hydrogen gas formed stick of the surface of calcium
(A) (I) and (IV) (B) (II) and (III) (C) (I) and (II) (D) (III) and (IV)

41. The correct order of acidic strength is:
(A) Water < Hydrochloric acid < acetic acid (B) Hydrochloric acid < Water < acetic acid
(C) Acetic acid < Hydrochloric acid < Water (D) Water < Acetic acid < Hydrochloric acid

42. Which of the following is not a purpose of transpiration?
(A) Supplies water for photosynthesis
(B) Helps in translocation of sugar in plants
(C) Cools of leaf surface
(D) Transports minerals from the soil to all the parts of the plant

43. The measure of how much light bends in a medium is:
(A) refraction (B) refractive index
(C) magnification (D) scattering

44. Which of the following compound does not dissociate into H^+ ions in an aqueous solution:
(A) C_2H_5OH (B) H_3PO_4
(C) H_2CO_3 (D) CH_3COOH

45. Refractive index does not depend upon which of the following factor:
(A) Temperature (B) Frequency of light
(C) Optical density of material (D) Pressure at constant density

46. The pH value of four solutions are:
A = 1 B = 9 C = 3 D = 13
Choose the incorrect statement:
(A) A has a higher concentration of hydronium ions than solution C
(B) B has a higher concentration of hydronium ions than solution D
(C) A and B will turn red litmus solution into blue
(D) A is highly acidic while B is weakly basic

47. Refractive index of ethanol is 1.361 and it is known that benzene is optically dense than ethanol. Which could be the refractive index of benzene:
(A) 1.350 (B) 1.281 (C) 1.333 (D) 1/501

48. Diamond sparkles more than a similar cut glass piece. Reason being:
(A) more cuts on the diamond are possible than that of a glass piece
(B) dispersion of light shown by diamond as compared with glass
(C) more total internal reflection due to greater refractive index of diamond
(D) diamond's critical angle with reference to air is too small

Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

The first attempted 10 questions would be evaluated.

Case 1 : Ramesh is a skilled painter. He mixed a white coloured powder, compound X with water. The compound X reacted vigorously with water to produce a compound Y and a large amount of heat. Then, Ramesh used the compound Y for white washing the walls. Customer was not satisfied with the work of Ramesh as walls were not shining. But Ramesh guaranteed him that the walls would shine after 2-3 days. And after 3 days of whitewash, the walls became shiny.

49. Name the compound X, that Ramesh mixed with water.
(A) Calcium
(B) Calcium oxide
(C) Calcium carbonate
(D) Calcium hydroxide

50. Name the compound Y that Ramesh got after mixing X with water.
(A) Calcium
(B) Calcium oxide
(C) Calcium carbonate
(D) Calcium hydroxide

51. What type of reaction is occurred here?
(A) Decomposition reaction
(B) Displacement reaction
(C) Double displacement reaction
(D) Combination reaction

52. Which of the following reactions is responsible for shiny finish of the walls?
(A) $CaO + H_2O \longrightarrow Ca(OH)_2$
(B) $Ca + CO_2 \longrightarrow CaCO_3$
(C) $Ca(OH)_2 + CO_2 \longrightarrow CaCO_3 + H_2O$
(D) $CaCO_3 + H_2O \longrightarrow Ca(OH)_2 + CO_2$

Case 2 : Atmospheric refraction is the phenomenon of bending of light on passing through the earth's atmosphere. As we move above the surface of the earth, the density of air goes on decreasing. Local conditions like temperature etc. also affect the optical density of the earth's atmosphere. On account of atmospheric refraction, stars seen appear higher than they actually are. Advanced sunrise, delayed sunset, the oval appearance of the sun at sunrise and sunset, twinkling of stars, all can be explained with atmospheric refraction.

53. Due to atmospheric refraction, the apparent length of the day.

(A) Increases (B) Decreases

(C) Remains same (D) None of the above

54. Apparent position of the stars appears raised due to:

(A) Atmospheric refraction (B) Scattering of light

(C) Dispersion of light (D) Reflection of light

55. The sun appears oval-shaped or flattened due to:

(A) Dispersion (B) Scattering

(C) Atmospheric refraction (D) Atmospheric reflection

56. Which of the following given statement is incorrect?

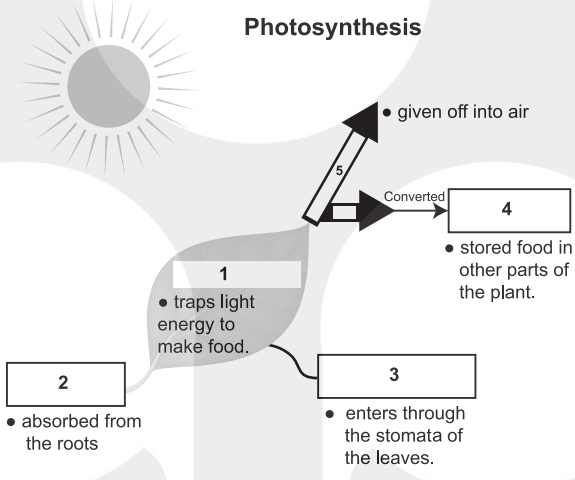
(A) Atmospheric refraction explains the non-twinkling of planets

(B) Atmospheric refraction explains the twinkling of stars

(C) Atmospheric refraction explains floating images around a bonfire

(D) Atmospheric refraction alone explains the rainbow formation

Case 3 : Look at the picture below carefully and answer given questions.



57. What is the name of the pigment that should be filled in the box 1?

(A) chloroplast (B) chromophyll (C) chlorophyll (D) chromoplast

58. What is the thing that plants absorb through their roots and should be filled in box 2 to complete the picture?

(A) water (B) mineral nutrients

(C) air (D) chemicals

59. An appropriate entry for the box 3 shown in the figure is:

(A) oxygen (B) air (C) carbon dioxide (D) nitrogen

60. Final outputs from the photosynthesis, to be filled in boxes 4 and 5, are:

(A) glucose and oxygen (B) oxygen and glucose

(C) glucose and carbon dioxide (D) energy and oxygen

❑❑

Sample Paper 5

Science

Section - A

Section – A consists of 24 questions. Attempt any 20 questions from this section.

The first attempted 20 questions would be evaluated.

1. Electrolysis of water is a decomposition reaction. The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is _____.

(A) 1 : 1 (B) 2 : 1 (C) 4 : 1 (D) 1 : 2

2. Which of the following salts do not contain water of crystallisation?

(A) Blue vitriol (B) Baking soda

(C) Washing soda (D) Gypsum

3. How is sex of a child determined? Give reason.

(A) The X chromosome in the zygote

(B) The Y chromosome in zygote

(C) The cytoplasm of germ cell which determines the sex

(D) Sex is determined by chance

4. Which one of the following properties is not generally exhibited by ionic compounds ?

(A) Solubility in water (B) Electrical conductivity in solid state

(C) High melting and boiling points (D) Electrical conductivity in molten state

5. Rays from sun converge at a point 15 cm in front of a concave mirror. Where should an object be placed so that size of its image is equal to the size of the object?

(A) 15 cm in front of the mirror

(B) 30 cm in front of the mirror

(C) between 15 cm and 30 cm in front of the mirror

(D) more than 30 cm in front of the mirror

6. A student obtains a blurred image of a distant object on a screen using a convex lens. To obtain a distinct image on the screen he should move the lens :

(A) away from the screen

(B) towards the screen

(C) to a position very far away from the screen.

(D) either towards or away from the screen depending upon the position of the object.

7. The pancreatic juice does not contain one of the following enzymes.

(A) Trypsin (B) Amylase (C) Lipase (D) Ptyalin

8. A clear sky appears blue, because:

(A) blue light gets absorbed in the atmosphere.

(B) ultraviolet radiations are absorbed in the atmosphere.

(C) violet and blue lights get scattered more than the lights of all other colours by the atmosphere

(D) lights of all other colours is scattered more than the violet and blue colour lights by the atmosphere.

9. Mirage is observed mainly during ..... days.

(A) Sunny (B) Winter (C) Spring (D) Hot

10. Only two of the following statements accurately describe what happens in the mouth.

(I) Amylase breaks down large starch molecules into smaller maltose molecules

(II) Chewing increases the surface area of food for digestion

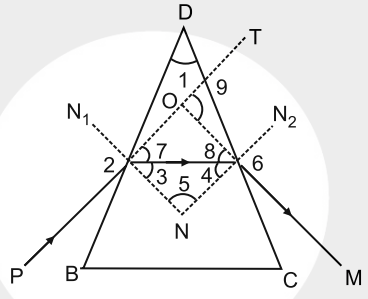
(III) Saliva emulsifies fats into smaller droplets

(IV) Teeth breakup large insoluble molecules into smaller soluble molecules

Which statement are correct?

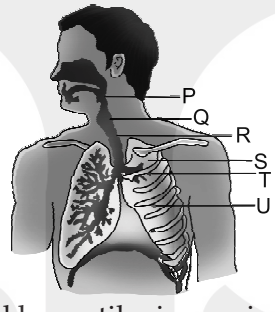
(A) (I) and (II) (B) (I) and (II) (C) (III) and (IV) (D) (I) and (IV)

11. A ray diagram of refraction through prism is shown. Locate the angle of prism and angle of deviation, respectively.



(A) 9, 1 (B) 5, 8 (C) 1, 9 (D) 9, 8

12. Study the diagram of human respiratory system and answer any of the four questions:



Which of these organ is surrounded by cartilaginous rings?

(A) P (B) Q (C) R (D) S

13. What is the colour of the ash formed when a magnesium ribbon is burnt in the air?

(A) White (B) Black (C) Yellow (D) Pink

14. The clear sky appears blue because:

(A) Blue light gets absorbed in the atmosphere

(B) Ultraviolet radiations are absorbed in the atmosphere

(C) Violet and blue lights get scattered more than light of all other colours by the atmosphere

(D) Light of the other colours is scattered more than the violet and blue colour light by the atmosphere

15. Which among the following statement(s) is (are) true? Exposure of silver chloride to sunlight for a long duration turns grey due to **:**

(I) The formation of silver by decomposition of silver chloride.

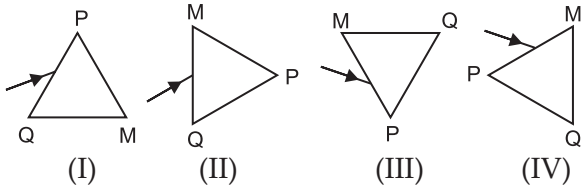
(II) Sublimation of silver chloride.

(III) Decomposition of chlorine gas from silver chloride.

(IV) Oxidation of silver chloride.

(A) (I) only (B) (I) and (III) (C) (II) and (III) (D) (IV) only

16. A prism PQM (QM as the base) is placed in four different orientations as shown in the figure below. A narrow beam of sunlight is incident on the prism (in all orientations).



In which case, after dispersion, the third colour from the top corresponds to the primary colour Blue?

(A) (I) (B) (II) (C) (III) (D) (IV)

17. Which of the following statements is/ are incorrect?

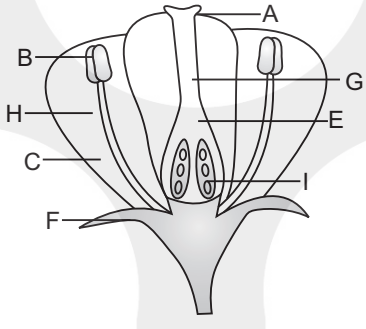
(A) We can use this process for obtaining pure sodium.

(B) The anode is made up of impure metal.

(C) In this process, on passing the current through the electrolyte, the metal from the cathode dissolves into electrolyte and then equivalent amount of pure metal is deposited on anode.

(D) Both (A) and (C)

18. The cross-sectional diagram of a flower is given below. Choose the correct statement.



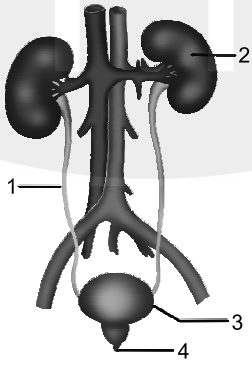
(A) Female reproductive parts: A, B, E, F; Male reproductive parts: C, D, G, H

(B) Female reproductive parts: A, E, G, I; Male reproductive parts: B, C, F, H

(C) Female reproductive parts: A, E, G, I; Male reproductive parts: B, C, H

(D) Female reproductive parts: E, F, G; Male reproductive parts: B, C, H

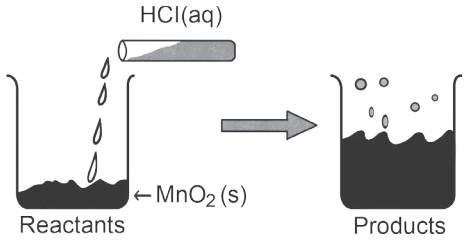
19. The given diagram represents the structure of a human excretory system. Study the diagram and answer the following question:



Identify the part 1 in excetion.

(A) Kidney (B) Ureter (C) Urethra (D) Nephron

20. The reaction between MnO_2 with HCl is depicted in the following diagram. It was observed that a gas with bleaching abilities was released.

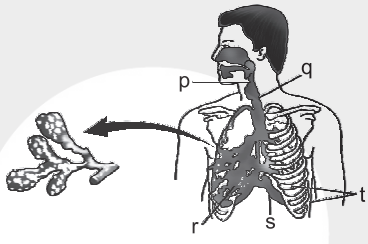


What wil happen if we take dry HCl gas instead of aqueous solution of HCl?

(A) Reaction will occur faster (B) Reaction will not occur

(C) Reaction rate will be slow (D) Reaction rate will remain the same

21. Refer to the give figure and answer the following questions:



Which of these parts:

(I) are the actual sites of respiratory gas exchange?

(II) is the common passage for air and food?

(III) is provided with incomplete cartilaginous rings?

(IV) relaxes and gets back to its original shape during expiration?

(V) moves upwards and outwards during inspiration?

(A) (I)-s, (II)-p, (III)-q, (IV)-r, (V)-t

(B) (I)-r, (II)-p, (III)-q, (IV)-s, (V)-t

(C) (I)-t, (II)-q, (III)-r, (IV)-s, (V)-p

(D) (I)-p, (II)-q, (III)-r, (IV)-s, (V)-t

22. A ray of light travelling from air enters a liquid at an angle of 45° with the normal. If the corresponding angle of refraction is 30°, then the refractive index of the liquid with respect to air is :

(A) 1.44 (B) 1.41 (C) 1.21 (D) 1.45

23. Which among the following statements is incorrect for magnesium metal?

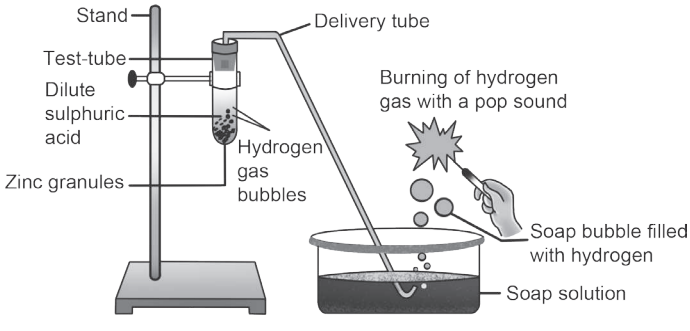
(A) It burns in oxygen with a dazzling white flame

(B) It reacts with cold water to form magnesium oxide and evolves hydrogen gas

(C) It reacts with hot water to form magnesium hydroxide and evolves hydrogen gas

(D) It reacts with steam to form magnesium hydroxide and evolves hydrogen gas

24. Study the given experimental set-up and answer the following questions.



Write the products formed in the abvoe process:

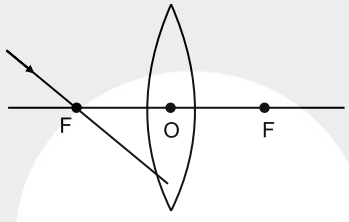
(A) Zinc sulphate only
(B) Only hydrogen gas
(C) Zinc sulphate and hydrogen gas
(D) Zinc sulphide and hydrogen gas

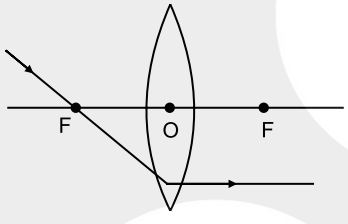
Section - B

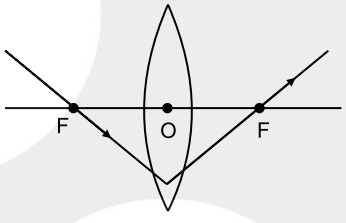
Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

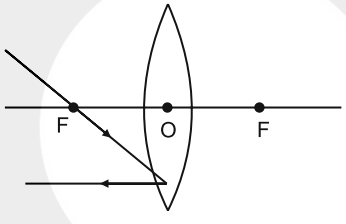
The first attempted 20 questions would be evaluated.

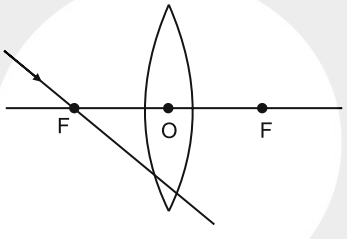
25. Which of the following ray diagrams is correct for the ray of light incident on a lens shown in figure.











(A) Figure A
(B) Figure B
(C) Figure C
(D) Figure D

26. Which substances are produced by anaerobic respiration in yeast?

(A) Carbon dioxide-✓, Alcohol-✓, Lactic Acid-✕, Water-✕
(B) Carbon dioxide-✓, Alcohol-✕, Lactic Acid-✓, Water-✕
(C) Carbon dioxide-✕, Alcohol-✓, Lactic Acid-✕, Water-✓
(D) Carbon dioxide-✕, Alcohol-✕, Lactic Acid-✓, Water-✓

key = ✓ = produced, ✕ = not produced

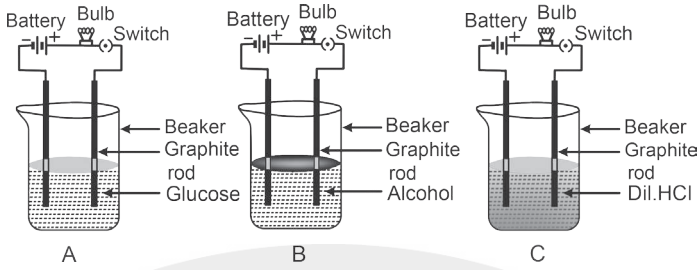
27. In the double displacement reaction between aqueous potassium iodide and aqueous lead nitrate, a yellow precipitate of lead iodide is formed. While performing the activity if lead nitrate is not available, which of the following can be used in place of lead nitrate?

(A) Lead sulphate (insoluble)
(B) Lead acetate
(C) Ammonium nitrate
(D) Potassium sulphate

28. Red colour is selected for danger signals because:

(A) Red light has the highest speed among all colours so it reaches our eyes fast.
(B) Since red is the colour of human blood so it is directly associated with danger and courage.
(C) Highest frequency of the colour red makes the wave move repeatedly multiple times in a direction.
(D) Red light has the highest wavelength among all colours so it is scattered least.

29. Siya takes three breakers A, B and C filled with aqueous solutions of glucose, alcohol and hydrochloric acid respectively as shown in the following figure:



Which of the following statement is correct in terms of glowing of bulb when the switch is ON?

(A) Bulb A and B do not glow but bulb C glows

(B) Bulb A and C do not glow but bulb B glows

(C) Bulb B and C do not glow but bulb A glows

(D) All the bulbs glow

30. Which process occurring in human body does not involve energy from respiration?

(A) Contraction of heart muscle

(B) Diffusion of oxygen from the alveoli into the blood

(C) Digestion of bread

(D) Maintaining a constant body temperature

> **Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:**
>
> A. Both A and R are true and R is the correct explanation of A
>
> B. Both A and R are true and R is not the correct explanation of A
>
> C. A is true but R is false
>
> D. A is false but R is true

31. **Assertion:** XX chromosome give rise to female child whereas XY give rise to male child.

Reason: The Y chromosome in males is small than X chromosome.

32. **Assertion:** Silver bromide is kept in the coloured bottles.

Reason: Silver bromide is kept in coloured bottles because it decomposes in presence of light.

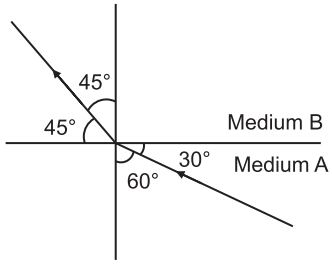
33. **Assertion:** Solutions of compounds like alcohol and glucose do not show acidic character.

Reason: They do not show acidic character because they do not dissociate into ions.

34. **Assertion:** The refractive index of diamond is $\sqrt{6}$ and that of liquid is $\sqrt{3}$. If the light travels from diamond to the liquid, it will totally reflected when the angle of incidence is 30°.

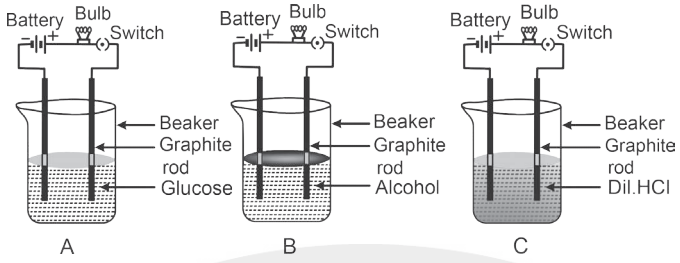
Reason: m = 1 sin C, where m is the refractive index of diamond with respect to liquid.

35. The given figure shows a ray of light as it travels from medium A to medium B. Refractive index of the medium B relative to medium A is:



(A) $\sqrt{3}/\sqrt{2}$ (B) $\sqrt{2}/\sqrt{3}$ (C) $1/\sqrt{2}$ (D) $\sqrt{2}$

36. Suhana takes three beakers A, B and C filled with aqueous solutions of glucose, alcohol and hydrochloric acid respectively as shown in the following figure:



Which of the following statement is true if alcohol is replaced with NaOH solution:

(A) Bulb glows in alcohol but not in NaOH solution

(B) Bulb will glow in NaOH solution but not in alcohol

(C) Bulb does not glow in alcohol and neither will it glow in NaOH solution

(D) Bulb glows in NaOH solution as well as in alcohol.

37. In which of the following groups of organism, food material is broken down outside the body and absorbed?

(A) Mushroom, green plants, Amoeba (B) Yeast, mushroom, bread mould

(C) Paramecium, Amoeba, Cuscuta (D) Cuscuta, lice, tapeworm

38. The orange-reddish appearance of the sun during sunrise and sunset is because of ..... .

(A) Dispersion of light (B) Scattering of light

(C) Total internal reflection of light (D) Reflection of light from the earth

39. Sodium carbonate is a basic compound because it is a salt of a:

(A) Strong acid and strong base (B) Weak acid and weak base

(C) Strong acid and weak base (D) Weak acid and strong base

40. A 10 mm long awl pin is placed vertically in front of a concave mirror. A 5 mm long image of the awl pin is formed at 30 cm in front of the mirror. The focal length of this mirror is:

(A) – 30 cm (B) – 20 cm (C) – 40 cm (D) – 60 cm

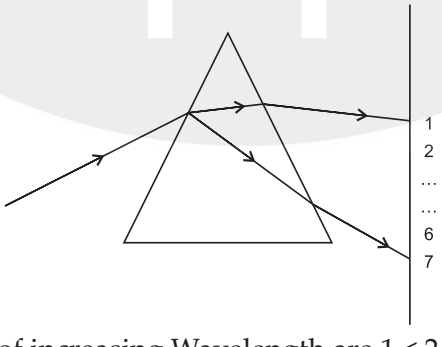
41. Barium chloride on reacting with ammonium sulphate forms barium sulphate and ammonium chloride. Which of the following correctly represents the type of the reaction involved?

(I) Displacement reaction (II) Precipitation reaction

(III) Combination reaction (IV) Double displacement reaction

(A) (I) only (B) (II) only (C) (IV) only (D) (II) and (IV)

42. Which of the following statements is correct for the figure below?



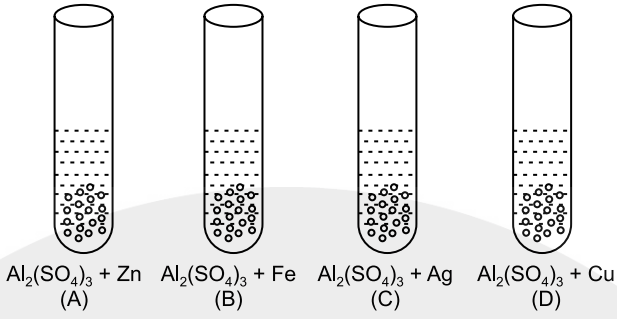
(A) The colours in the order of increasing Wavelength are 1 < 2 < 3 < 4 < 5 < 6 < 7

(B) The colours in the order of increasing frequency are 1 < 2 < 3 < 4 < 5 < 6 < 7

(C) The colours in the order of decreasing speed are 7 > 6 > 5 > 4 > 3 > 2 > 1

(D) The colours in the order of decreasing deviation are 1 > 2 > 3 > 4 > 5 > 6 > 7

43. In each test tubes A, B, C and D, 2 mL of solution of $Al_2(SO_4)_3$ in water was filled. Clean pieces of zinc was placed in test tube A, clean iron nail wa sput in test ube B, silver (Ag) was placed in test tube C and a clean copper wire was placed in test tube D.



Which of the following option(s) is/are correct about above experiment?

(A) Zinc is more reactive than aluminium

(B) Copper is more reactive than aluminium

(C) Zinc is more reactive than copper

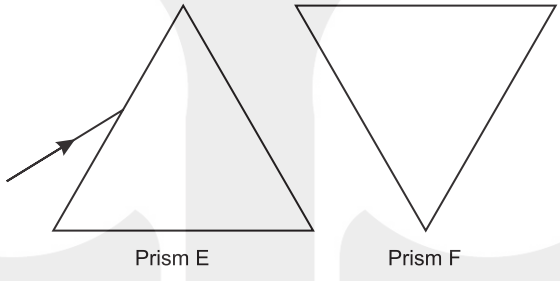
(D) Zinc, iron, silver and copper are less reactive than aluminium

44. Dialysing unit (artificial kidney) contains a fluid which is almost same as plasma except that it has:

(A) high glucose (B) high urea

(C) no urea (D) high uric acid

45. Consider statements S_1 and S_2 for the figure given below:



S_1: The ray of light which emerges out of Prism F will be white light.

S_2: The refraction produced by the prism F is equal and opposite to that of Prism E.

(A) Both S_1 and S_2 are true and S_2 is the correct explanation of S_1.

(B) Both S_1 and S_2 are true but S_2 is not the correct explanation of S_1.

(C) S_1 is true but S_2 is false.

(D) S_2 is true but S_1 is false.

46. A dilute ferrous sulphate solution was gradually added to the beaker containing acidified permanganate solution. The light purple colour of the solution fades and finally disappears. Which of the following is the corect explanation for the observation?

(A) $KMnO_4$ is an oxdising agent, it oxidises $FeSO_4$

(B) $FeSO_4$ acts as an oxidising agent and oxidises $KMnO_4$

(C) The colour disappears due to dilution, no reaction is involved

(D) $KMnO_4$ is an unstable compound and decomposes in the presence of $FeSO_4$ to a colourless compound

47. Which of the following statements is incorrect?

(A) In the primary rainbow, red colour is formed on the outside and violet colour on the inside.

(B) A normal human eye cannot clearly see all the objects at different distances.

(C) A beam of white light gives a spectrum on passing through a hollow prism.

(D) All of the above.

48. A blue litmus paper was first dipped in dil. HCl and then in dil. NaOH solution. The colour of the litmus paper will be:

(A) Changed first to red and then to blue

(B) Changed first to blue and then colourless

(C) Remains blue ni both times

(D) Changed to red

Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

The first attempted 10 questions would be evaluated.

Case 1: Sexual reproduction is the production of a new organism from two parents by making use of their gametes or sex cells. Plants also have male and female sex organs. When the male gamete combines with the female gamete, a new seed is formed. This seed when provided with suitable environment is germinated and a new plant is grown. Plants reproduce in a number of ways. The most primitive members of the plant kingdom, green algae, reproduce asexually by fission. Other plants can reproduce by the asexual process called fragmentation. The remainder of plants reproduce sexually by releasing gametes.

49. Which of the statement is incorrect?

(A) The filiform apparatus blocks the entry of pollen and sperm cells

(B) The secondary nuclei form a polar nucleus prior to fertilisation

(C) Androecium is a part of the carpel

(D) All of these

50. In the list of organisms given below, those that reproduce by the asexual method are:

(A) banana (B) dog (C) yeast (D) Amoeba

(A) (B) and (D) (B) (A), (C) and (D)

(C) (A) and (D) (D) (B), (C) and (D)

51. Which of the following is the correct sequence of events of sexual reproduction in a flower?

(A) Pollination, fertilisation, seedling, embryo

(B) Seedling, embryo, fertilisation, pollination

(C) Pollination, fertilisation, embryo, seedling

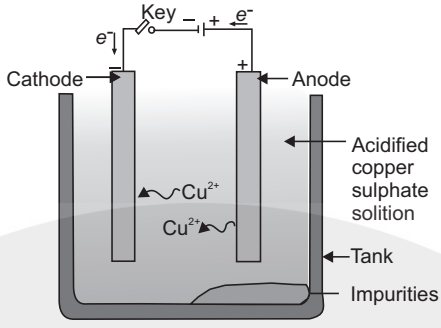
(D) Embryo, seedling, pollination, fertilisation

52. The part of the flower which is present in the centre of the flower is:

(A) Sepals (B) Petals

(C) Carpels (D) Stamens

Case 2: Tarun found a piece of copper from his old junk, but it was impure. On the basis of the knowledge about extraction of metals studied in the class, he created a set up in his chemistry laboratory to obtain pure copper.



53. Name the process performed by Tarun to obtain pure copper.

(A) Extraction of metal (B) Electrolytic Reduction

(C) Electrolytic Refining (D) Roasting

54. What is used as electrolyte by Tarun?

(A) Impure copper (B) Copper at cathode

(C) Copper at anode (D) Acidified copper sulphate solution

55. Name the insoluble impurities settled down at the bottom of apparatus.

(A) Anode mud (B) Cathode mud

(C) Cuprites (D) Electrolytic impurity

56. Where does Tarun find pure copper after the process?

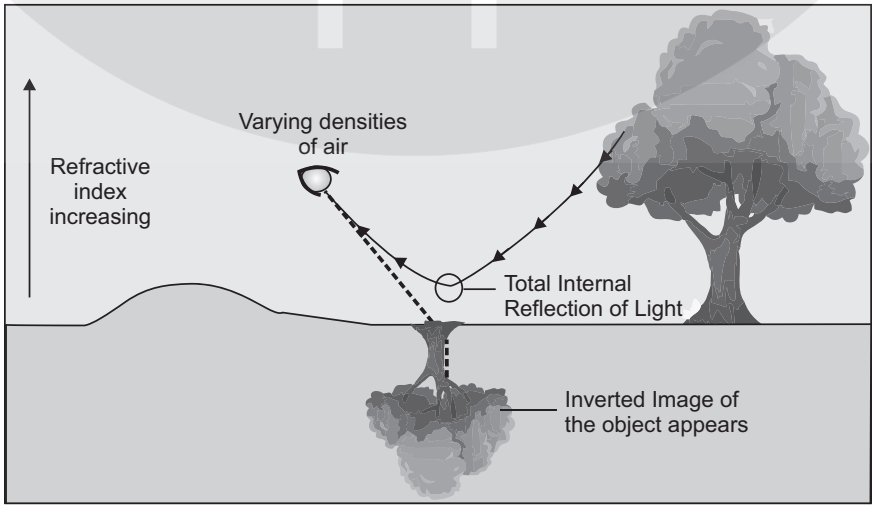
(A) At cathode (B) At anode

(C) Acidified copper solution (D) As precipitate

Case 3: Light is a form of energy that produces in us the sensation of sight. Reflection of light is the phenomenon of bouncing back of light in the same medium on striking the surface of any object

The two laws of reflection are the incident ray, the reflected ray and the normal (at the point of incidence), all lie in the same plane and the angle of reflection (r) is always equal to the angle of incidence (i). Refraction of light is the phenomenon of change in the path of light in going from one medium to another.

57. Mirage is caused due to .....



(A) total Internal Reflection of light by the various layers of air
(B) illusion of the presence of water
(C) result of refraction of light from a non-uniform medium
(D) during sunny days when driving on a roadway

58. What is mirage?
(A) Depends on the position of object
(B) Mirror is concave and the lens is convex
(C) Goes straight into the second medium
(D) Optical illusion caused due to total Internal Reflection

59. What are the two types of mirage?
(A) Thin mirage and thick mirage
(B) Inferior mirage and superior mirage
(C) Intense mirage and diminished mirage
(D) Light mirage and dark mirage

60. How a mirage is formed?
(A) Between focus and centre of curvature
(B) Is formed away from the normal
(C) Illusion of the presence of water and is a result of refraction of light from a non-uniform medium
(D) Is reflected along the same path

❑❑

Sample Paper 6

Science

Section – A

Section – A consists of 24 questions. Attempt any 20 questions from this section.
The first attempted 20 questions would be evaluated.

1. What is the name of the process where fatty foods become rancid?
(A) Corrosion (B) Oxidation
(C) Reduction (D) Hydrogenation

2. The kidneys in human beings are a part of the system for :
(A) Nutrition (B) Respiration
(C) Excretion (D) Transportation

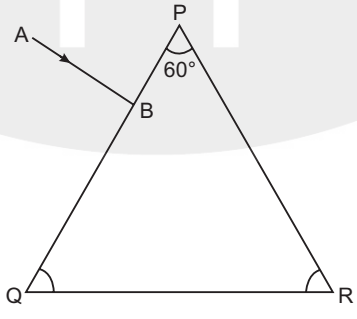
3. An object is placed at a distance of 10 cm in front of a plane mirror, then the distance of image from mirror will be:
(A) 5 cm (B) 10 cm (C) 20 cm (D) 15 cm

4. Which one of the following precipitates are formed when the carbon dioxide gas is passed through lime water?
(A) $Ca(OH)_2$ (B) $Ca(OH)_4$ (C) $CaCO_3$ (D) $CaCO_2$

5. Why is potassium more metallic than sodium. Give reason for the choice.
(A) Both have 1 electron in their outermost shell.
(B) Both are highly electropositive.
(C) Sodium is larger in size than potassium.
(D) Potassium is larger in size than sodium.

6. The opening and closing of stomatal pores depends upon :
(A) Oxygen (B) Water in guard cells
(C) Concentration of carbon dioxide in stomata (D) Temperature

7. In given figure, a light ray AB is incident normally on one face PQ of an equilateral glass prism. Find out the angles at faces PQ and PR.



(A) 60° (B) 30° (C) 45° (D) 90°

8. In a convex spherical mirror, reflection of light takes place at:
(A) a flat surface (B) a bent-in surface
(C) a bulging-out surface (D) an uneven surface

9. Generally metals react with acids to give salt and hydrogen gas. Which of the following acids does not give hydrogen gas on reacting with metals (except Mn and Mg) ?

(A) H_2SO_4 (B) HCl

(C) HNO_3 (D) All of these

10. An object is placed at the centre of curvature of a concave mirror. The distance between its image and the pole is:

(A) equal to *f* (B) between *f* and 2*f* (C) equal to 2*f* (D) greater than 2*f*

11. In human digestive system the enzymes pepsin and trypsin are secreted respectively by :

(A) Pancreas and liver (B) Pancreas and gall bladder

(C) Stomach and pancreas (D) Stomach and salivary glands

12. What is the colour of the ash formed when a magnesium ribbon is burnt in the air?

(A) White (B) Black (C) Yellow (D) Pink

13. Which of the following phenomena of light are involved in the formation of a rainbow?

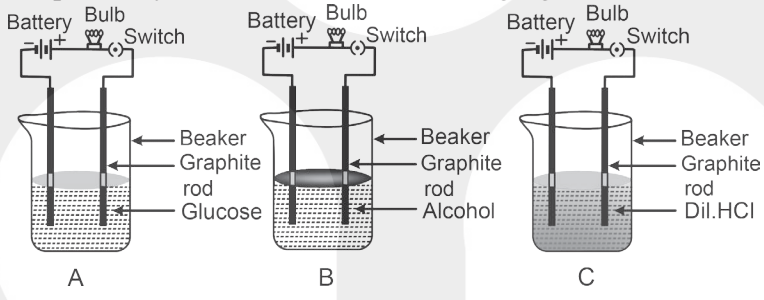
(A) Reflection, refraction and dispersion

(B) Reflection, dispersion and total internal reflection

(C) Refraction, dispersion and internal reflection

(D) Dispersion, scattering and total internal reflection

14. Suhana takes three beakers A, B and C filled with aqueous solution of glucose, alcohol and hydrochloric and respectively as shown in the following figure:



The bulb glows in a solution depending on whether the solution is:

(A) acidic (B) an electrolyte

(C) basic (D) a non electrolyte

15. Protein, carbohydrate, and fat components of food are completely digested in the:

(A) stomach (B) small intestine

(C) large intestine (D) oesophagus

16. An element A is soft and can be cut with a knife. This is very reactive to their and cannot be kept open in air. It reacts vigorously with water. Identify the element from the following:

(A) Mg (B) Na (C) P (D) Ca

17. The spectrum produced by the white light by a prism is called:

(A) pure spectrum (B) impure spectrum

(C) monochromatic spectrum (D) none of these

18. The table shows the characteristics of blood in one blood vessel of the body.

Oxygen concentration	Carbon dioxide concentration	Pressure
High	Low	High

Which blood vessel contains blood with these characteristics?

(A) Aorta (B) Pulmonary artery

(C) Pulmonary vein (D) Vena cava

19. A ray of light falls normally or perpendicular on the surface of a mirror. Which of the following is not true regarding this?

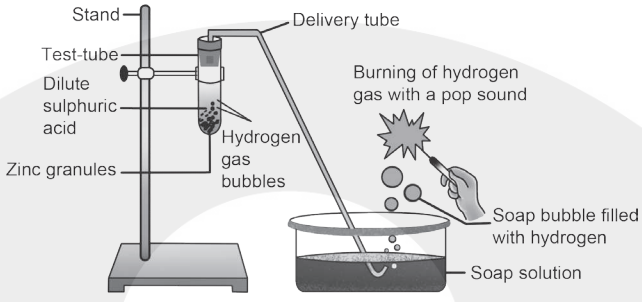
(A) The angle of incidence for such a ray of light is zero

(B) The angle of reflection for such a ray of light is zero

(C) Such ray of light reflects back along the same path

(D) A ray of light in this case does not follow law of reflection

20. Study the given experimental set-up and answer the following questions.

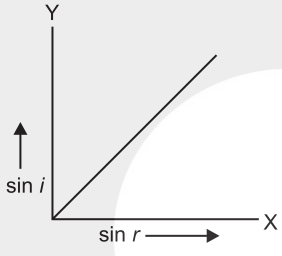


A new product sodium zincate is formed is sulphuric acid is replaced with:

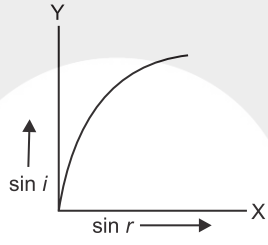
(A) Sodium hydroxide (B) Sodium oxide (C) Zinc oxide (D) Water

21. Which of the following correctly represents graphical relation between since of angle of incidence (i) and sine of angle of refraction (r)?

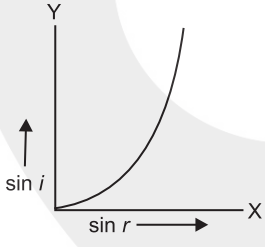
(A)



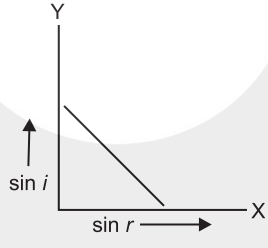
(B)



(C)



(D)



22. Match chemical compound given in the Column I with its colour given in Column II and select the correct answer using the options given below:

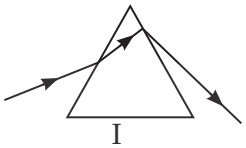
Column I (Chemical compounds)	**Column II (Colour of their compound)**
A. Barium sulphate	1. Colourless
B. Ferrous sulphate	2. Blue
C. Copper sulphate	3. Green (light)
D. Zinc sulphate	4. White

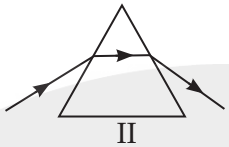
	A	B	C	D
(A)	1	3	4	2
(B)	4	2	1	3
(C)	2	4	3	2
(D)	4	3	2	1

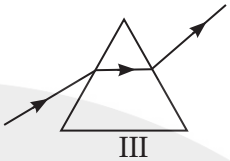
23. In which of the following group of organisms, food material is broken down outside the body and absorbed ?

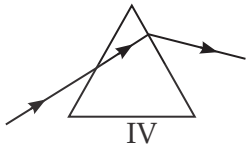
(A) Mushroom, green plants, amoeba
(B) Yeast, mushroom, bread mould
(C) Paramecium, amoeba, cuscuta
(D) Cuscuta, lice, tapeworm

24. In which of the following diagrams is the path of a ray of light passing through a glass prism shown correctly?

(A) 
I

(B) 
II

(C) 
III

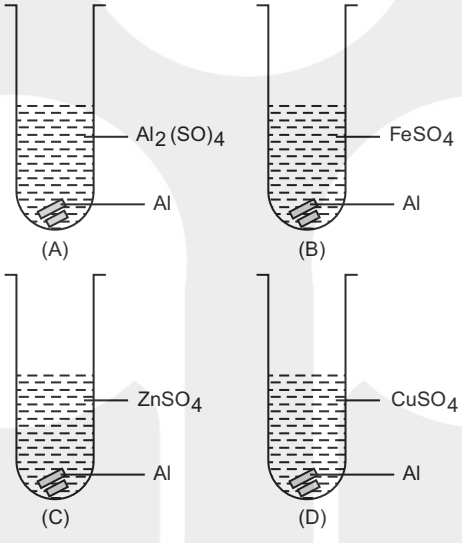
(D) 
IV

Section - B

Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

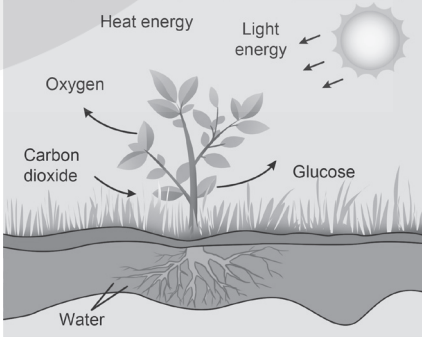
The first attempted 20 questions would be evaluated.

25. Mrignayani was doing the experiment of comparing reactivity of metals in the laboratory. She was given aluminium metal and was told to check reactivity by using four solutions as shown below. She would observe that reaction takes place in:



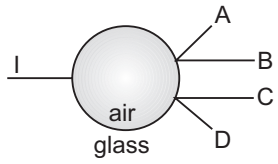
(A) A and B
(B) B, C and D
(C) A, C and D
(D) C and D

26. The image shows the porcess of making food by a plant. Which statement can be concluded from the image?



(A) Plants absorb CO_2 from air and H_2O from the soil as raw materials and convert them into glucose.
(B) Plants absorb O_2 from air and minerals from the soils raw materials and convert them into heat energy.
(C) Plants absorb O_2 from air and glucose from the soil as raw materials and convert them into light energy.
(D) Plants absorb CO_2 from the soil and H_2O from air as raw materials and convert them into glucose.

27. A spherical air bubble is embedded in glass, and a ray of light (incident ray I) approaches the bubble as shown in the figure. Which of the following represents the refracted ray which passes through the bubble completely?



(A) A (B) B (C) C (D) D

28. Which of the following reactions is an exothermic reaction ?
(A) Burning of coal.
(B) Decomposition of vegetable matter into compost.
(C) Process of respiration.
(D) Decomposition of calcium carbonate to form quick lime and carbon dioxide.

29. If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will not take place properly?
(A) Proteins breaking down into amino acids
(B) Starch breaking down into sugars
(C) Fats breaking down into fatty acids and glycerol
(D) Absorption of vitamins

30. Which of the statement is correct regarding the propagation of light of different colours of white light in air?
(A) Red light moves the fastest.
(B) Blue light moves faster than green light.
(C) All the colours of the white light travel with the same speed.
(D) Yellow light moves with the mean speed as that of red and the violet light.

Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:
A. Both A and R are true and R is the correct explanation of A
B. Both A and R are true and R is not the correct explanation of A
C. A is true but R is false
D. A is false but R is true

31. **Assertion (A):** Hydrogen peroxide is kept in coloured bottles.
Reason (R): Hydrogen peroxide is a moderately reactive metal that can react with light or heat slowly to produce water.

32. **Assertion:** Plane mirror may form real image.
Reason: Plane mirror forms virtual image, if objects is real.

33. **Assertion:** Aerobic animals are not truly aerobic.
Reason: They produce lactic acid anaerobically.

34. **Assertion:** Colour of copper sulphate solution changes when an iron nail is kept immersed in it.
Reason: The colour of copper sulphate solution changes when iron nail is kept immersed in it due to the decomposition reaction taking place between iron and copper leading to formation of iron sulphate.

35. A piece of red cloth when suitably illuminated may look black, but a piece of black cloth will never appear red. This phenomenon occurs because :
(A) Black cloth reflects only black light
(B) Black absorbs all the colours
(C) Black cloth reflects all colours
(D) Red cloth reflects all colours

36. Which among the following statement(s) is (are) true? Exposure of silver chloride to sunlight for a long duration turns grey due to :

(I) The formation of silver by decomposition of silver chloride.

(II) Sublimation of silver chloride.

(III) Decomposition of chlorine gas from silver chloride.

(IV) Oxidation of silver chloride.

(A) (I) only (B) (I) and (III) (C) (II) and (III) (D) (IV) only

37. In human digestive system the enzymes pepsin and trypsin are secreted respectively by :

(A) Pancreas and liver

(B) Pancreas and gall bladder

(C) Stomach and pancreas

(D) Stomach and salivary glands

38. Element S reacts with element T to form a compound C. During the formation of compound C, atoms of S lose one electron whereas T gains one electron each. Which of the following properties is not shown by compound C?

(A) High melting point (B) Low melting point

(C) Occurrence as solid (D) Conduction of electricity in the molten state

39. Which of the following statements are correct ?

(I) Pyurvate can be broken down into ethanol and carbon dioxide by yeast

(II) Fermentation takes place in aerobic bacteria

(III) Fermentation takes place in mitochondria

(IV) Fermentation is a form of anaerobic respiration

(A) (I) and (III) (B) (II) and (IV) (C) (I) and (IV) (D) (II) and (III)

40. Which of the following properties of aluminium are responsible for the same ?

(I) Good thermal conductivity

(II) Good electrical conductivity

(III) Ductility

(IV) High melting point

(A) (I) and (II) (B) (I) and (III) (C) (II) and (III) (D) (I) and (IV)

41. Examine few statements regarding NaCl.

(I) It is prepared by Chlor-alkali process

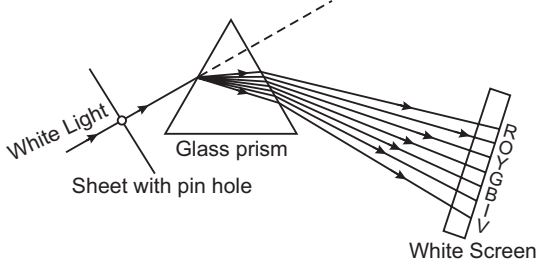
(II) It is a white crystalline substance

(III) It also exists in the form of rocks called rock salt

(IV) It is a neutral salt with a pH value = 7

(A) (II) and (III) only (B) (III) and (IV) only

(C) (I) and (IV) only .(D) (II), (III) and (IV) only



42. What happens if the fallopian tubes are blocked and ovulated eggs are prevented from reaching the uterus?

(A) Fertilisation may occur but no implantation occurs in uterus

(B) The sperm will enter ovary and fertilise the egg

(C) The fallopian tube burst open and the fertilisation occur

(D) All eggs in the ovary die

43. The splitting of white light can be done by:

(A) lens (B) prism

(C) mirror (D) none of these

44. What is 'white, solid hard mass' called as?

(A) Talcum powder (B) Paris of Plaster

(C) Plaster of Paris (D) Copper sulphate

45. When a red light passes through a prism, it:

(A) will not split (B) will split into seven colours

(C) will split into white colour (D) will split into many different colours.

46. Reaction between X and Y, forms compound Z. X loses electron and Y gains electron. Which of the following properties is not shown by Z ?

(A) Has high melting point

(B) Has low melting point

(C) Conducts electricity in molten state

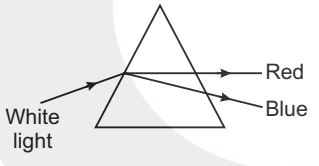
(D) Occurs as solid

47. Which property of light is used by prism to form a spectrum?

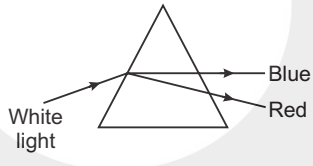
(A) Reflection (B) Refraction (C) Dispersion (D) Scattering

48. Which of the following dispersion is correct?

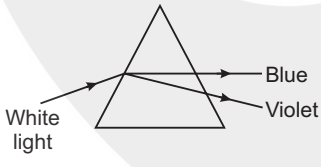
(A)



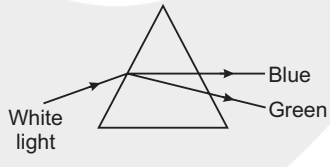
(B)



(C)



(D)



Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

<u>The first attempted 10 questions would be evaluated.</u>

Case 1 : Common edible salt, NaCl (Sodium Chloride) obtained from seawater or from lakes contains many impurities such as sulphates of sodium and magnesium along with chlorides of calcium and magnesium. The chlorides of these metals are particularly undesirable being deliquescent in nature. A saturated solution of salt in a minimum quantity of water is prepared and insoluble impurities are filtered off. HCl gas is then passed through the saturated solution and the crystals of pure NaCl separate out. The soluble impurities remain in the solution. Pure crystals of NaCl are filtered washed and dried.

49. Choose the correct statement:
(A) Pure NaCl is hygroscopic in nature by itself
(B) Pure NaCl is soluble in alcohol
(C) NaCl shows hygroscopic properties only due to impurities
(D) NaCl is a brown crystalline solid

50. Nature of the aqueous solution of common salt is:
(A) Acidic (B) Alkaline (C) Basic (D) Neutral

51. Which of the following compounds is alkaline in an aqueous medium?
(A) Na_2CO_3 (B) NaCl (C) H_2CO_3 (D) $CuSO_4$

52. Adding common salt to water will result in:
(A) Increase in pH of the water (B) Decrease in pH of the water
(C) No change in pH of the water (D) Flames in water

Case 2 : The curved surface of a spoon can be considered as a spherical mirror. A highly smooth polished surface is called mirror. The mirror whose reflecting surface is curved inwards or outwards is called a spherical mirror. Inner part works as an concave mirror and the outer bulging part acts as a convex mirror. The centre of the reflecting surface of a spherical mirror is called pole and the radius of the sphere of which the mirror is formed is called radius of curvature.

53. When a concave mirror is held towards the sun and its sharp image is formed on a piece of carbon paper for some time, a hole is burnt in the carbon paper. What is the name given to the distance between the mirror and carbon paper.
(A) Radius of curvature (B) Focal length
(C) Principal focus (D) Principal axis

54. The distance between pole and focal point of a spherical mirror is equal to the distance between:
(A) pole and centre of curvature (B) focus point and centre of curvature
(C) pole and object (D) object and image

55. The focal length of a mirror is 15 cm. The radius of curvature is:
(A) 15 cm (B) 30 cm (C) 45 cm (D) 60 cm

56. The normal at any point on the mirror passes through:
(A) focus (B) pole
(C) centre of curvature (D) any point

Case 3 : Refer the figure given below carefully and answer the following questions :

57. The given picture shows a part of :
(A) human digestive system (B) mouse digestive system
(C) human respiratory system (D) mouse alimentary canal

58. Food taken in is processed to generate particles, which are small and of the same texture through:
(A) biting (B) crushing the food with our teeth
(C) mixing with saliva in the mouth (D) licking

59. Biological catalysts which help in food disintegration are also known as:

(A) enzymes (B) proteins

(C) fats (D) nucleic acids

60. Digestion functions are taken care of by the gastric glands present in the wall of the stomach by releasing the following :

(A) hydrochloric acid, pepsin, and mucus

(B) hydrochloric acid, pepsin, and malic acid

(C) sulphuric acid, pepsin, and mucus

(D) hydrochloric acid, pepsin and mucus

❑❑

Sample Paper 7

Science

Section - A

Section – A consists of 24 questions. Attempt any 20 questions from this section.
The first attempted 20 questions would be evaluated.

1. The following reaction is an example of a:

$4NH_3(g) + 5O_2(g) \longrightarrow 4NO(g) + 6H_2O(g)$

(I) Displacement reaction

(II) Combination reaction

(III) Redox reaction

(IV) Neutralisation reaction

(A) (I) and (IV) (B) (II) and (III) (C) (I) and (III) (D) (III) and (IV)

2. The radius of curvature of concave mirror is 12 cm. Then, the focal length will be:

(A) 12 cm (B) 6 cm (C) – 24 cm (D) – 6 cm

3. Which of the following is the correct statement regarding bile ?

(A) Secreted by bile duct and stored in liver

(B) Secreted by liver and stored in bile duct

(C) Secreted by liver and stored in gall bladder

(D) Secreted by gall bladder and stored in liver

4. Which one of the following is acidic in nature?

(A) Gastric juice

(B) Sodium hydroxide solution

(C) Lime water

(D) Blood plasma

5. The chemical formula for plaster of Paris is :

(A) $CaSO_4 . 2H_2O$ (B) $CaSO_4 . H_2O$ (C) $CaSO_4 . 1/2\ H_2O$ (D) $2CaSO_4 . H_2O$

6. A thin prism P_1 with angle 4° and made from glass of refractive index 1.54 is combined with another prism P_2 made from glass of refractive index 1.92 to produce dispersion without deviation. Then, the angle of the prism P_2 is:

(A) 2.3° (B) 4.3° (C) 3.2° (D) 2.0°

7. Which of the following component of our food is digested by an enzyme which is present in saliva as well as in pancreatic juice ?

(A) Proteins (B) Fats (C) Minerals (D) Carbohydrates

8. A convex mirror has wider field of view because:

(A) the image formed is much smaller than the object and large number of images can be seen

(B) the image formed is much closer to the mirror

(C) both (A) and (B)

(D) none of these

9. Which of the following properties of aluminium are responsible for the same ?

(I) Good thermal conductivity

(II) Good electrical conductivity

(III) Ductility

(IV) High melting point

(A) (I) and (II) (B) (I) and (III) (C) (II) and (III) (D) (I) and (IV)

10. Which law should be kept in mind while we balance chemical equations?

(A) Conservation of momentum (B) Conservation of mass

(C) Conservation of energy (D) Conservation of frequency

11. When you add a few drops of acetic acid to a test-tube containing sodium bicarbonate powder, which one of the following is your observation ?

(A) No reaction takes place

(B) A colourless gas with pungent smell is released with brisk effervescence

(C) A brown coloured gas is released with brisk effervescence.

(D) Formation of bubbles of a colourless and odourless gas.

12. In an experiment to trace the path of a ray of light through a triangular glass prism, a student would observe that the emergent ray:

(A) is parallel to the incident ray

(B) is along the same direction of incident ray

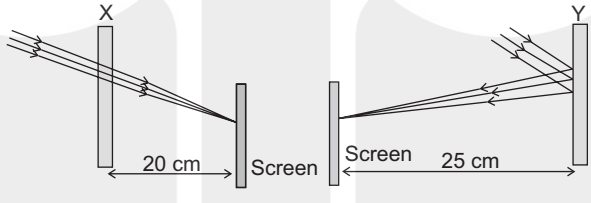
(C) gets deviation and bend towards the thinner part of the prism

(D) gets deviated and bends towards the thicker part (base) of the prism.

13. Where are proteins first digested in the alimentary canal ?

(A) Small intestine (B) Oesophagus (C) Stomach (D) Mouth

14. Study the given ray diagrams and select the correct statement from the following:



(A) Device X is a concave mirror and device Y is a convex lens, whose focal lengths are 20 cm and 25 cm respectively.

(B) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 10 cm and 25 cm respectively.

(C) Device X is a concave lens and device Y is a convex mirror, whose focal lengths are 20 cm and 25 cm respectively.

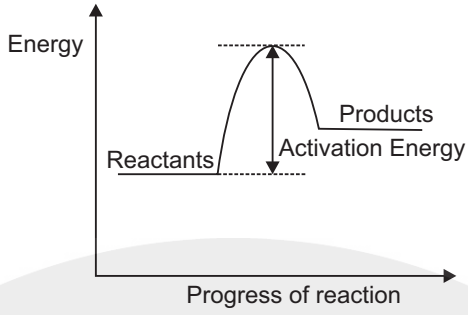
(D) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 20 cm and 25 cm respectively.

15. Which of the following equation are balanced?

(A) $3Fe(s) + 4H_2O(g) \longrightarrow Fe_3O_4(s) + 4H_2(g)$ (B) $2CaO(s) + H_2O(l) \longrightarrow 2Ca(OH)_2(aq)$

(C) $CH_4(g) + 2O_2(g) \longrightarrow CO_2(g) + 2H_2O(g)$ (D) $2AgBr(s) \longrightarrow Ag(s) + 2Br_2(g)$

16. The following represent the exothermic reaction. The reactants react to form product, with the release of energy in the form of heat.



Which of the following involve an exothermic reaction?

(A) Respiration (B) Oxidation (C) Combustion (D) All of these

17. The refractive index (n) of a colourless, volatile, non-polar solvent is 1.24 to the refractive index of a solid ice cube. The unmitigated refractive index of the ice cube is 1.31. Enumerate the unmitigated refractive index of the non-polar solvent.

(A) 1.6522 (B) 1.3241 (C) 1.6244 (D) 1.2401

18. Which of the following is not the function of hydrochloric acid in the body?

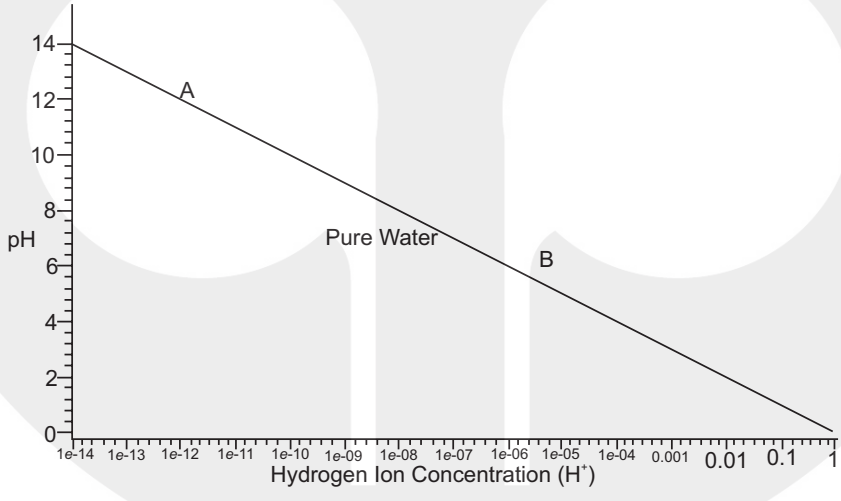
(A) Creating acidic medium in stomach

(B) Digestion of proteins

(C) Facilitate the function of pepsin, for digestion of proteins

(D) Killing of microbes present

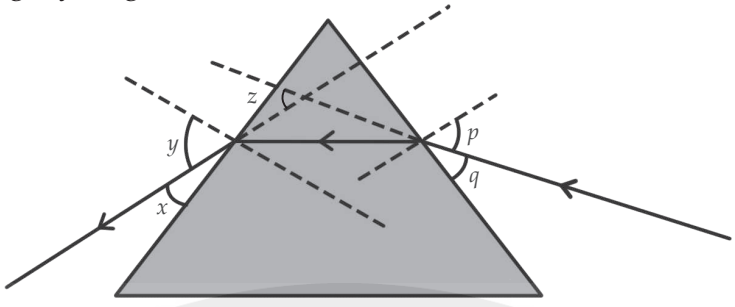
19. The given graph below is plotted again pH and H^+ concentration.



In the experiment, Krati and Vedanshi listed the chemicals in list A and B. Which of the following is correct?

	List A	List B
(A)	HCl, Citric Acid, Oxalic Acid, Nitric Acid, Vinegar	Ammonia, Sodium Hydroxide, Baking soda
(B)	Ammonia, Sodium Hydroxide, Baking soda	HCl, Citric Acid, Oxalic Acid, Nitric Acid, Vinegar
(C)	HCl, Citric Acid, Oxalic Acid, Nitric Acid,	Ammonia, Sodium Hydroxide, Baking soda, vinegar
(D)	Ammonia, Sodium Hydroxide, Vinegar	HCl, Citric Acid, Oxalic Acid, Nitric Acid, Baking Soda

20. Study the following ray diagram:



In this diagram, the angle of incidence, the angle of emergence and the angle of deviation respectively have been represented by:

(A) y, p and z (B) x, q and z

(C) p, y and z (D) p, z and y

21. A few drops of iodine solution were added to rice water. The solution turned blue-black in colour. This indicates that rice water contains:

(A) Complex proteins (B) Simple proteins

(C) Starch (D) Fats

22. The sky appears dark to passengers flying at very high altitudes mainly because:

(A) Scattering of light is not enough at such heights.

(B) There is no atmosphere at great heights.

(C) The size of molecules is smaller than the wavelength of visible light.

(D) The light gets scattered towards the earth.

23. Which of the following is the correct statement regarding bile ?

(A) Secreted by bile duct and stored in liver

(B) Secreted by liver and stored in bile duct

(C) Secreted by liver and stored in gall bladder

(D) Secreted by gall bladder and stored in liver

24. A student puts a drop of reaction mixture of a saponification reaction first on a blue litmus paper and then on a red litmus paper. He may observe that :

(A) There is no change in the blue litmus paper and the red litmus paper turns white.

(B) There is no change in the red litmus paper and the blue litmus paper turns red.

(C) There is no change in the blue litmus paper and the red litmus paper turns blue.

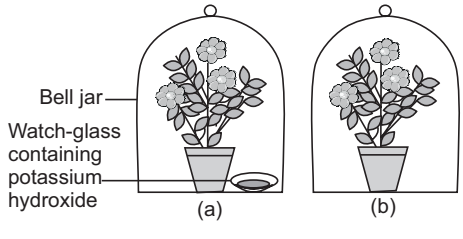
(D) No change in colour is observed in both the litmus papers.

Section - B

Section - B consists of 24 questions (Sl. No. 25 to 48). Attempt any 20 questions from this section.

<u>The first attempted 20 questions would be evaluated.</u>

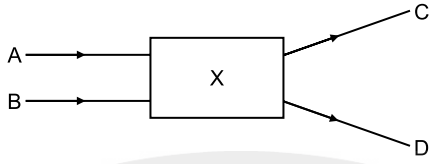
25. Carbon dioxide is an important element for production of food by plants. With a help of the below experiment, it is demonstrated that photosynthesis cannot be possible without carbon dioxide.



What is the role of potassium hydroxide in the above demonstrated experiment:

(A) Hygroscopic
(B) Absorb carbon dioxide
(C) Absorb oxygen
(D) Absorb water

26. Light rays A and B fall on optical component X and come out as C and D.



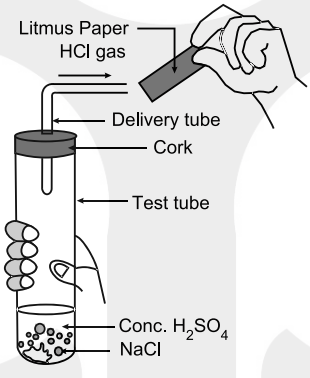
The optical component is a:

(A) Concave lens
(B) Convex lens
(C) Convex mirror
(D) Prism

27. Choose the function of pancreatic juice from the following :

(A) Trypsin digests proteins and lipase digests carbohydrates
(B) Trypsin digests emulsified fats and lipase digests proteins
(C) Trypsin and lipase digests fats
(D) Trypsin digests proteins and lipase digests emulsified fats

28. The figure given below represents the experiment carried out between conc. sulphuric acid and sodium chloride, which react with each other to form HCl gas.



Blue litmus paper is brought near the mouth of the delivery tube to check the presence of HCl acid but no change is observed in the colour of litmus paper because :

(A) The litmus paper used is dry
(B) The litmus paper used is moist
(C) Blue litmus paper does not change its colour with an acid
(D) The litmus paper is kept very close to the mouth of the delivery tube

29. To prepare a good temporary mount of the petunia leaf peel showing many stomata. From where the student will have to observe the peel? Give reason for your answer.

(A) tip of the leaf
(B) upper surface of the leaf
(C) lower surface of the leaf
(D) point of attachment of the leaf to its petiole

30. The red colour of the sun at the time of sunrise and sunset is because:

(A) red colour is least scattered
(B) blue colour is least scattered
(C) red colour is most scattered
(D) blue colour is most scattered

Question No. 31 to 34 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

A. Both A and R are true and R is the correct explanation of A
B. Both A and R are true and R is not the correct explanation of A
C. A is true but R is false
D. A is false but R is true

31. Assertion (A): Aluminium is used to make utensils for cooking.
Reason (R): Aluminium is a highly reactive metal.

32. Assertion: Dark phase is independent of light, hence called light independent phase.
Reason: Dark phase takes place at night.

33. Assertion (A): Chemical equations should be balanced.
Reason (R): As per the law of conservation of mass, mass can neither be created nor be destroyed.

34. Assertion: If the rays are diverging after emerging from a lens; the lens must be concave.
Reason: The convex lens can give diverging rays.

35. Choose the correct statements that describe arteries.
(A) They have thick elastic walls, blood flows under high pressure, collect blood from different organs and bring back to heart.
(B) They have thin walls with valves inside, blood flows under low pressure, carry blood away from the heart to various organs of the body.
(C) They have thick elastic walls, blood flows under low pressure, carry blood from the heart to various organs of the body.
(D) They have thick elastic walls without valves inside, blood flows under high pressure and carry blood away from the heart to different parts of the body.

36. The following reaction is an example of a:

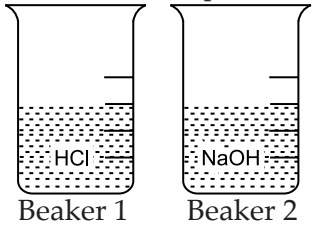
$$4NH_3(g) + 5O_2(g) \longrightarrow 4NO(g) + 6H_2O(g)$$

(I) Displacement reaction (II) Combination reaction
(III) Redox reaction (IV) Neutralisation reaction
(A) (I) and (IV) (B) (II) and (III) (C) (I) and (III) (D) (III) and (IV)

37. Which of the following statements is correct regarding the propagation of light of different colours of white light in air?
(A) Red light moves fastest.
(B) Blue light moves faster than green light
(C) All the colours of the white light move with the same speed.
(D) Yellow light moves with the mean speed as that of the red and the violet light.

38. The correct sequence of anaerobic reaction is yeast is:
(A) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Mitochondria}}$ Ethanol + Carbon dioxide
(B) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Cytoplasm}}$ Lactic acid
(C) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Mitochondria}}$ Lactic acid
(D) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Cytoplasm}}$ Ethanol + Carbon dioxide

39. A student placed 10 mL HCl and NaOH in two separate breakers as shown.



In breaker 1, 4 mL of NaOH is added whereas in breaker 2, 4 mL of HCl is added. The student notes the possible changes in pH in both solutions.

	Change in pH (Beaker 1)	Change in pH (Beaker 2)
A	increase	increase
B	reduce	increase
C	increase	reduce
D	reduce	reduce

Which change in pH is correct ?

(A) A (B) B (C) C (D) D

40. Which of the following is the correct order of wavelength?

(A) Red > Green > Yellow (B) Red > Violet > Green

(C) Yellow > Green > Violet (D) Red > Yellow > Orange

41. When the powder of a common metal is heated in an open china dish, its colour turns black. However, when hydrogen is passed over the hot black substance so formed, it regains its original colour. What type of chemical reaction takes place in each of the two given steps?

(A) First oxidation reaction then displacement reaction

(B) First combustion reaction, then reduction reaction

(C) First oxidation reaction, then redox reaction

(D) First reduction reaction, then redox reaction

42. Which of the following is the correct order of speed of light in glass?

(A) Red > Green > Blue (B) Blue > Green > Red

(C) Violet > Red > Green (D) Green > Red > Blue

43. In which of the following group of organisms, food material is broken down outside the body and absorbed ?

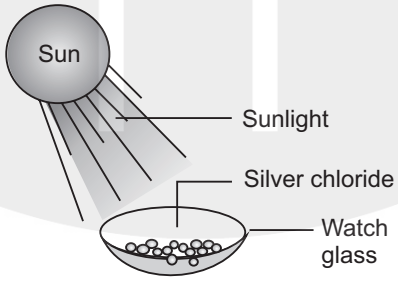
(A) Mushroom, green plants, amoeba

(B) Yeast, mushroom, bread mould

(C) Paramecium, amoeba, cuscuta

(D) Cuscuta, lice, tapeworm

44. Study the given diagram in which white powder of silver chloride was left open in sunlight. After few hours, it was observed that the white powder changed to silvery material. What type of reaction is it?



(A) Displacement reaction (B) Decomposition reaction

(C) Redox reaction (D) Corrosion

45. Which colour has the maximum frequency?

(A) Red (B) Violet (C) Blue (D) Green

46. Which of the following is the correct order of angle of deviation?

(A) Red > Green > Blue (B) Blue > Yellow > Orange

(C) Orange > Red > Green (D) Blue > Green > Violet

47. After rain, Shreya observed that the iron lock of the main gate of her house had a reddish-brown powdery covering. The cleaned the lock using sandpaper and found the shiny, non-corroded layer beneath. What could she do to prevent such reaction to occur?
(A) To buy a new similar lock
(B) To coat the surface with a layer of paint
(C) To clean the lock using sandpaper regularly
(D) To buy a gold lock instead of iron lock

48. A clear sky appears blue, because:
(A) blue light gets absorbed in the atmosphere.
(B) ultraviolet radiations are absorbed in the atmosphere.
(C) violet and blue lights get scattered more than the lights of all other colours by the atmosphere
(D) lights of all other colours is scattered more than the violet and blue colour lights by the atmosphere.

Section - C

Section- C consists of three Cases followed by questions. There are a total of 12 questions in this section. Attempt any 10 questions from this section.

The first attempted 10 questions would be evaluated.

Case 1 : The spherical mirror forms different types of images when the object is placed at different locations.

When the image is formed on screen, the image is real and when the image does not form on screen, the image is virtual. When the two reflected rays meet actually, the image is real and when they appear to meet, the image is virtual.

A concave mirror always forms a real and inverted image for different positions of the object. But if the object is placed between the focus and pole, the image formed is virtual and erect.

A convex mirror always forms a virtual, erect and diminished image. A concave mirror is used as doctor's head mirror to focus light on body parts like eyes, ears, nose etc., to be examined because it can form erect and magnified image of the object. The convex mirror is used as a rear mirror in automobiles because it can form a small and erect image of an object.

49. When an object is placed at the centre of curvature of a concave mirror, the image formed is:
(A) larger than the object
(B) smaller than the object
(C) same size as that of the object
(D) highly enlarged

50. No matter how far you stand from a mirror, your image appears erect. The mirror is likely to be:
(A) plane
(B) concave
(C) convex
(D) either plane or convex

51. A child is standing in front of a magic mirror. She finds the image of her head bigger, the middle portion of her body of the same size and that of the legs smaller. The following is the order of combinations for the magic mirror from the top.
(A) Plane, convex and concave
(B) Convex, concave and plane
(C) Concave, plane and convex
(D) Convex, plane and concave

52. To get an image larger than the object, one can use :
(A) convex mirror but not a concave mirror
(B) a concave mirror but not a convex mirror
(C) either a convex mirror or a concave mirror
(D) a plane mirror

Case 2 : Vedanshi and Krati are working in the lab. During the experiment of determining the reactivity of acid and bases, the test tube containing chemical 'X' cracked and the liquid inside produced blisters on the skin of the Krati. The pH strip turned blue to red, with the reaction to the liquid. Vedanshi immediately called her teacher for help, and first aid was provided to Krati.

53. What could be the possible liquid be present in test tube?

(A) Boiling water (B) Concentrated H_2SO_4

(C) Vinegar (D) Sodium Hydroxide Solution

54. The following list include the possible first aid for the laboratory accidents.

(I) Thoroughly rinse the affected area with water.

(II) Having medicines without prescribing the doctor.

(III) Consult the doctor immediately

(IV) To go outside the lab, preferably in an open area.

(V) Not telling the teacher and other elders or they might scold you.

(A) All of these (B) (I), (II) and (III) are correct

(C) Only (I) is correct (D) (I), (III) and (IV) are correct

55. Krati detected the pH of four unknown solution A, B, C and D as follows 11, 5, 7 and 2 respectively and note down her results.

(I) C is neutral in nature.

(II) On reacting A and D, water is liberated.

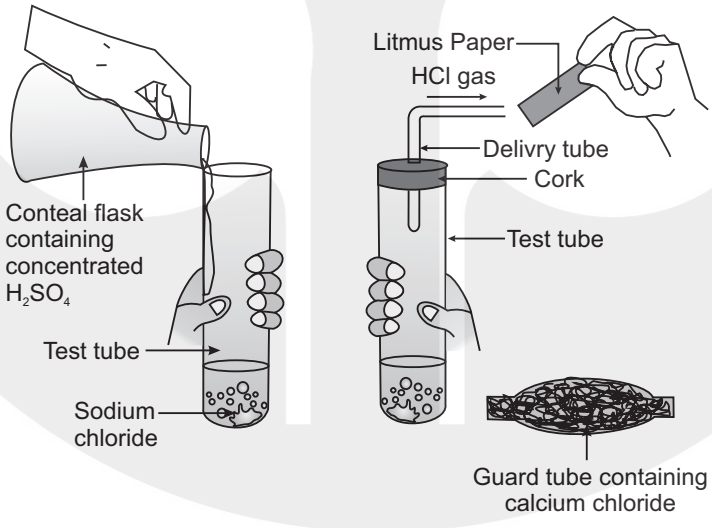
(III) A and C are basic in nature.

(IV) B and D react to form hydrogen gas

(A) All are correct (B) (I) and (II) are correct

(C) (I) and (IV) are correct (D) (I), (II) and (III) are correct

56. What does the following activity represent?



(A) Production of HCl

(B) Production of H_2SO_4

(C) Production of CO_2

(D) Reaction of calcium chloride with sulphuric acid

Case 3 : Mr. Prabhakar went on a hiking with his family. He is a patient of renal failure. In the middle of the trip, he fell ill. He had leg cramps and experienced acidity with high blood pressure. He was immediately taken to nearby hospital. Doctor prescribed him antacids and gave him injection for high BP. He advised Mr. Prabhakar to rest a while and eat healthy.

57. Choose the correct option.

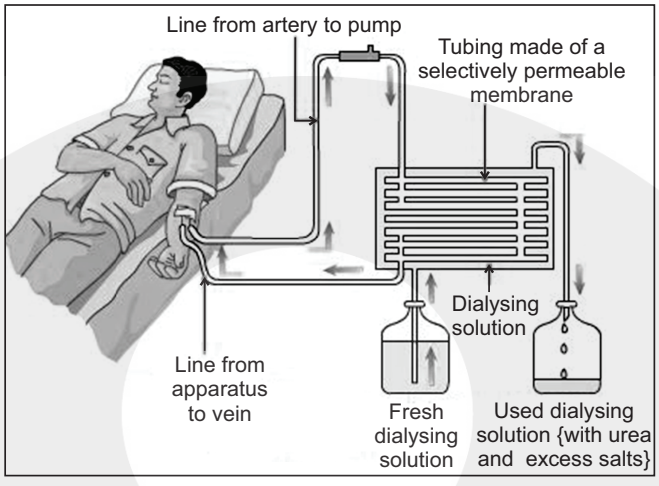
(A) Cramps occurred due to formation of acetic acid in leg muscles.

(B) Cramps are formed in case of absence of oxygen.

(C) Cramps occurred due to formation of lactic acid in leg muscles.

(D) Cramps occurred due to lack of glucose in body.

58. Study the following diagram.



What does it represent?

(A) Hemodialysis (B) Blood transfusion

(C) Bypass surgery (D) Renal dialysis

59. What kind of injection were given to Mr. Prabhakar for high BP condition?

(A) Insulin (B) Glucose

(C) Saline (D) Calcium

60. In a healthy adult, the initial filtrate in the kidneys is about:

(A) 1-2L daily (B) 80L daily

(C) 180 L daily (D) 120L daily

❑❑

Answers

Sample Paper 1

Section - A

1. (D) Basic

> **Explanation:** By the action of water on quick lime an aqueous solution of calcium hydroxide is formed which is basic in nature.

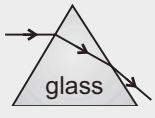
2. (A) 373 K

3. (D) 1-b, 2-c, 3-e, 4-d, 5-a

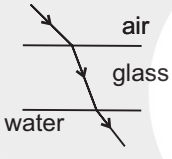
4. (D) Decomposition of calcium carbonate to form quick lime and carbon dioxide.

> **Explanation:** Decomposition of calcium carbonate to form quick lime and carbon dioxide is an exothermic reaction since this process absorbs heat from atmosphere.

5. (C)



6. (B)



7. (B) Yeast, mushroom, bread mould

> **Explanation:** Yeast, mushrooms, and bread mould all exhibit a saprophytic mode of nutrition. They use digestive enzymes secreted outside their bodies to break down complex organic substances and absorb basic molecules as nutrition.

8. (A) A

9. (C) scattering of light

> **Explanation:** The bluish colour of water in deep sea is due to scattering of light. The fine particles in water scatter mainly blue light having shortest wavelength.

10. (D) Light is necessary for photosynthesis

11. (D) either plane or convex

> **Explanation:** The plane and convex mirrors always form the erect (straight) image.

12. (A) Lime water turns milky due to the CO_2 exhaled

> **Explanation:** Lime water when reacts with carbon dioxide, exhaled, is turns milky.

13. (C) Both (A) and (B).

> **Explanation:** Burning of the candle is both physical and chemical change. Burning of the candle melts the wax and hence physical state of wax has changed from solid to liquid. Again the wax combines with the atmospheric oxygen and changes to carbon dioxide, heat and light. Thus it is both a physical and the chemical change.

14. (D) the normal to the surface of the mirror and reflected ray

15. (B) Formation of crystals by process of crystallisation

> **Explanation:** In the process of crystallisation, no new substance is formed, only a bigger substance is obtained. Therefore, it is a physical change *i.e.*, the identity of initial substance remains unchanged.

16. (C) incident ray and emergent ray produced

17. (C) a homogeneous mixture

> **Explanation:** Suspensions and colloids are heterogeneous mixture whereas an alloy is a homogeneous mixture of two or more metals. The various properties of a metal can be improved by mixing it with another metal such as melting point, electrical conductivity, resistant to corrosion and strong metals. Example of alloys are stainless steel (homogeneous mixture of Fe, Cr, Ni), brass (homogeneous mixture of Cu and Zn), bronze (homogeneous mixture of Cu and Sn) etc.

18. (A) Plants absorb CO_2 from air and H_2O from the soil as raw materials and convert them into glucose.

19. (B) The Y chromosome in zygote.

> **Explanation:** As X chromosomes from mother and Y chromosomes from father in the zygote as XY chromosme determines the boy child.

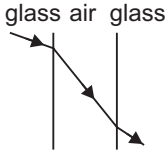
20. (B) Baking soda

> **Explanation:** Baking soda is sodium bicarbonate ($NaHCO_3$)in anhydrous form without any water of crystallisation.
>
> **Other options: Blue Vitriol:** It is hydrated salt of copper sulphate containing 5 molecules of water of crystallisation ($CuSO_4 . 5H_2O$).
>
> **Washing soda:** It is hydrated salt of sodium carbonate containing 10 molecules of water of crystallisation ($Na_2CO_3 . 10H_2O$).
>
> **Gypsum:** It is hydrated salt of calcium sulphate containing 2 molecules of water of crystallisation ($CaSO_4 . 2H_2O$).

21. (A) red colour is least scattered

> **Explanation:** The sun appears red at sunrise and sunset because the colour red is the least scattered.

22. (C)

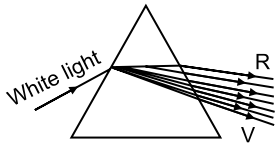


23. (A) Water < Acetic acid < Hydrochloric acid

24. (C) C

Section - B

25. (A)



26. (C) They convert carbon dioxide and water into carbohydrates in the absence of sunlight

27. (C) (II) only

28. (A) In between pole (P) and focus (*f*) behind mirror, virtual and erect

> **Explanation:** The image will be formed between pole (P) and focus (*f*) behind mirror, virtual and erect.

29. (A) Metal form positive ions by losing electrons

> **Explanation:** Those elements which form positive ions by losing electrons are called metals. So option (A) is correct.

30. (C) X-Low, Y-High, Z-High

> **Explanation:** A high concentration of oxygen in the alveolar air and low concentration in blood create a higher diffusion gradient. Blood leaving the alveolus contain a higher concentration of oxygen.

31. (B) Both A and R are true, but R is not the correct explanation of A.

> **Explanation:** Presence of HCl in stomach is necessary for digestion because acidic medium activates the action of gastric juice. HCl maintains a strong acidic pH, of about 1-2 in the stomach. HCl helps to activate Pepsinogen to pepsin which digests proteins to peptones and proteases. HCl inhibits the growth and also kills the germs that may have entered the stomach along with the food. So, thus it can be said that HCl kills bacteria but that does not help in digestion. Thus both assertion and reason are true, but reason is not the correct explanation of the assertion.

32. (A) Both A and R are true and R is the correct explanation of A.

> **Explanation:** Sodium is a very reactive metal. It reacts so vigorously that it catches fire if kept in the open. Therefore, to prevent the accidental fires, it is kept immersed in kerosene oil. Thus, both assertion and reason are true and reason is the correct explanation of the assertion.

33. (B) Both A and R are true but R is not the correct explanation of A.

> **Explanation:** Sodium hydroxide being an strong base, reacts with active metal (zinc) to produce H_2 gas. The reaction is given as follows :
>
> $$Zn(s) + 2NaOH(aq) \rightarrow Na_2ZnO_2(aq) + H_2(g)$$
>
> Thus both assertion and reason are true, but reason is not the correct explanation of the assertion.

34. (A) Both A and R are true and R is the correct explanation of A.

> **Explanation:** When the object is placed at an infinity position, the image formed by a concave mirror will be placed at the focus. Then the size of the image will be highly diminished and point-size. So, the nature of the image formed by the concave mirror is real and inverted. Thus, both assertion and reason are correct and reason is the correct explanation of the assertion.

35. (C) All the colours of the white light move with the same speed

> **Explanation:** All the colours of white light in air or vacuum move with the same speed but different wavelengths and frequencies.

36. (D) Heating magnesium wire in the presence of air at high temperature

> **Explanation:** Evaporation of water, strong of nitrogen gas under pressure and keeping petrol in a China dish in open does not involve a chemical reaction.
>
> Heating magnesium wire in the presence of air at high temperature involves a chemical reaction.
>
> $$Mg(s) + O_2(g) \rightarrow 2MgO(s)$$

37. (B) Stomata

> **Explanation:** The oxygen gas produced during photosynthesis is released into the surroundings through stomata.

38. (D) Virtual and erect

> **Explanation:** When an object is kept within the focus of a concave mirror, an enlarged image is formed behind the mirror. This image is virtual and erect.

39. (D) 2, 8

40. (C) Refracting surfaces

41. (B) Low melting point

42. (B) 2, 1, 4, 3

> **Explanation:** Angle 2 is angle of incidence, as it is formed between the incident ray and the normal.
>
> Angle 1 is angle of emergence, as it is formed between the emergent ray with normal.
>
> Angle 4 is angle of reflection as it is formed between the refracted ray and the normal.
>
> 3 shows the lateral displacement.
>
> Hence, the correct answer is 2, 1, 4, 3.

43. (D) Y is a non-metal and Z is a metal

44. (B) Clear, White/Cloudy

> **Explanation:** Living animals respire and produce carbon dioxide which causes lime water in flask 2 to become milky white Potassium hydroxide solution in flask 1 absorb carbon dioxide and remains clear.

45. (C) Refraction, dispersion and internal reflection

> **Explanation:** Rainbow is a phenomenon due to combined effect of dispersion, refraction and internal reflection of sunlight by spherical water droplets of rain.

46. (A) An ionic bond represents sharing of electrons

47. (D) – 6 cm

> **Explanation:** Given, radius of curvature, R = 12 cm
> We know that the focal length of concave mirror has negative value.
> Hence, focal length,
> $$f = \frac{-R}{2} = \frac{-12}{2} = -6 \text{ cm}$$

48. (C) Redox reaction

> **Explanation:** MnO_2 gets reduced as it loses oxygen while HCl gets oxidized to H_2O.

Section - C

49. (B) vasectomy

50. (D) 2-8 days

51. (A) Fertilisation may occur but no implantation occurs in uterus

52. (C) female foeticide

53. (B) The powder would react to moisture and turn into solid mass

54. (C) Plaster of Paris

55. (D) crystallisation

56. (D) Reactant is calcium sulphate hemihydrate, product is Gypsum

57. (A) Angle of prism

58. (B) Angle of deviation

59. (D) $\angle i > \angle r$

60. (C) Size of the prism

Sample Paper 2

Section - A

1. (A) H_2.

> **Explanation:** $Zn + HCl \longrightarrow ZnCl_2 + H_2$

2. (B) $Pb(NO_3)_2$

> **Explanation:** The salt (X) is $Pb(NO_3)_2$. When it is heated, it evolves brown fumes of nitrogen dioxide and a yellow residue of lead oxide is also formed.
> $$\underset{\text{Lead nitrate}}{2Pb(NO_3)_2} \xrightarrow{\Delta} \underset{\text{Lead oxide}}{2PbO(s)} + \underset{\text{Nitrogen dioxide}}{4NO_2(g)} + \underset{\text{Oxygen}}{O_2(g)}$$

3. (D) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 20 cm and 25 cm respectively.

Explanation: Since, for device X the light rays are coming from a object at infinity passes through the device X and forms a real image on a screen on right side. Since, convex lens forms a real and inverted image at focus when object is at infinity. So, device X is converging lens or convex lens of focal length 20 cm.

For device Y, the beam of parallel rays from infinity is incidence on the left side and after reflection a real image is formed on the screen. This device should be a mirror. Also, the light rays are getting converged, so mirror is converging in nature it is a concave mirror of focal length 25 cm.

4. (C) Starch

Explanation: Due to the presence of starch, when iodine solution was added to rice water, the solution becomes blue black. Iodine forms starch Iodide complex when it comes in contact of the amylose structure of starch. The blue-black colour comes from the starch iodide complex.

5. (C) *p*, *y* and *z*

Explanation: Angle *p* is the angle of incidence as this angle is formed between the incident ray and the normal. Angle *y* is angle of emergence as it is formed between emergent ray and the normal and angle *z* is the angle of deviation as it is formed between the emergent ray and the incident ray. Hence, the correct answer is *p*, *y*, *z*.

6. (A) The litmus paper used is dry

7. (A) Na_2CO_3.

Explanation: Out of the given options, Na_2CO_3 is basic salt because it is formed by the reaction between strong base (sodium hydroxide, NaOH) and weak acid (carbonic acid, H_2CO_3).

Other options: NH_4Cl: Acidic salt as it is a salt of a strong acid (hydrochloric acid, HCl) and a weak base (ammonium hydroxide, NH_4OH).

KCl: Neutral salt as it is a salt of strong acid (hydrochloric acid, HCl) and a strong base (potassium hydroxide, KOH).

$NaNO_3$: Neutral salt as it is a salt of strong base(sodium hydroxide, NaOH) and a strong acid(nitric acid, HNO_3).

8. (D) Small intestine

Explanation: Food is broken down in the small intestine by enzymes secreted by the pancreas and bile from the liver because it contains all of the enzymes required for the digestion of every type of food, the food is finally digested in the small intestine of the alimentary canal.

9. (C) lower surface of the leaf.

Explanation: The student will have to observe at the lower surface of the leaf as at lower side of the leaf stomata will be protected from loss of water.

10. (A) light is least scattered

Explanation: At noon, the sun is directly over head and has lesser air to travel through and thus will be reduced if the distance to be travelled in air is reduced. Less scattering leads to the sun appearing white as only a little of the blue and violet colour is scattered.

11. (B) Absorb carbon dioxide

12. (B) I-P, II-Q, III-R, IV-S

13. (B) Au

Explanation: Aqua regia which is a mixture of three parts of concentrated hydrochloric acid and one part of concentrated nitric acid (Aqua regia - 3:1 ratio) is given in the test tubes A, B and C to test the metals. Out of the given options Al, Au, Cu, Pt; gold is a noble metal that cannot dissolve in dilute acids and dissolves only in aqua regia. Hence, the metal that got dissolved in test tube C is gold (Au).

14. (A) Concave lens

Explanation: From the figure, light rays A and B diverges after refraction from optical component X. This means X is diverging lens or concave lens.

15. (C) By breaking down the nutrients of bread and then absorbing them.

16. (C) D

17. (B) Blue > Yellow > Orange

18. (B) C displace Ag to form C- Nitrate

19. (D) In between the pole (P) and the focus point (*f*) of the mirror.

Explanation: The object should be placed between the pole (P) and the focus point (*f*) of the mirror.

20. (D) (I) and (IV)

Explanation: Good thermal conductivity, malleability, light weight and high melting point are the properties of aluminium due to which it is used for making cooking utensils.

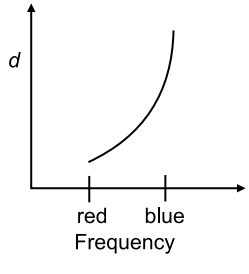
21. (C) All the colours of the white light move at the same speed

22. (D) Used up-Water, Produced-Oxygen, Remain unchanged-Chlorophyll

Explanation: Equation of photosynthesis show the reactants and products:

$$6CO_2 + 6H_2O \xrightarrow[\text{Chlorophyll}]{\text{Sunlight}} C_6H_{12}O_6 + 6O_2$$

23. (D)



Explanation: In dispersion through a prims, the red deviates least while blue deviates more. Hence, the wavelength of red is more than blue light. Also, frequency is related to wavelength by reaction.

$$f = \frac{1}{\lambda}$$

So, correct graph is shown in option (D).

24. (D) Basic.

Explanation: When quick lime is added to water, it reacts to form slaked lime ($Ca(OH)_2$) . Slaked lime or calcium hydroxide is basic in nature because it dissociates into OH^- ions when dissolved in aqueous solution.

Section - B

25. (B) 10 cm

Explanation: The distance of image is equal to the distance of object from mirror. Therefore, the distance of image from mirror is 10 cm.

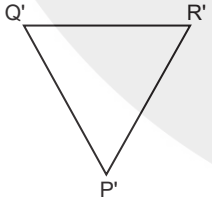
26. (B) Q-Brown, R-Brown

Explanation: The part Q of leaf was covered and not exposed to sunlight and part R was kept in absence of CO_2. Thus, both part of leaf did not form starch and gave a negative test for starch.

27. (C) (II) and (IV)

Explanation: The given reaction is an example of both combination and exothermic reaction because calcium oxide and water are combined together to form single product, i.e., calcium hydroxide and produces heat during reaction.
Hence, it is exothermic and combination reaction.

28. (B)



Explanation: A triangular glass prism PQR and another similar prism P′Q′R′ is placed alongside it in the inverted position on its vertex P′. So that it's refracting surface is in the opposite direction.

29. (C) C

30. (D) $\text{Glucose} \xrightarrow{\text{Cytoplasm}} \text{Pyruvate} \xrightarrow{\text{Cytoplasm}} \text{Ethanol + Carbon dioxide}$

Explanation: In yeast, the breakdown of pyruvate takes place in cytoplasm. Pyruvate converts into ethanol and carbon dioxide.

31. (A) A and R are true and R is the correct explanation of A.

> **Explanation:** The chemical equations should be balanced because as per the law of conservation of mass—"mass can neither be created nor be destroyed". Therefore number of atoms on both the sides of the equations should be equal. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

32. (A) A and R are true and R is the correct explanation of A.

> **Explanation:** Stomata is a tiny pore in leaves that help in gaseous exchange, so if the stomata gets blocked due to oil, gaseous exchange will be affected and hence rate of photosynthesis gets lowered. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

33. (A) Both A and R are true and R is the correct explanation of A.

> **Explanation:** When a piece of copper metal is added to dilute sulphuric acid, the solution turns blue. It is because, copper reacts with dilute sulphuric acid to form blue copper (II) sulphate solution. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

34. (C) A is true but R is false.

> **Explanation:** Shining of air bubble in water is on account of total internal reflection. Thus, assertion is true but reason is false.

35. (C) Violet and blue lights get scattered more than the lights of all other colours by the atmosphere.

> **Explanation:** When sunlight passes through the atmosphere the fine particles in air scatter the blue colour (shorter wavelength) more strongly than red colour. The scattered blue light enters our eyes and the sky appears blue.

36. (C) $2Pb_3O_4 \xrightarrow{\Delta} 6PbO(s) + O_2(g)$

37. (A) Mouth due to the presence of saliva.

38. (B) Blue > Green > Red

39. (D) calcium oxide

40. (A) there is lack of oxygen

> **Explanation:** During vigorous physical exercise, lactic acid is formed from glucose inside the muscle cells because there is lack of oxygen. Muscle cells respire anaerobically to produce lactic acid.

41. (D) Beaker 1 : KOH and H_2O; Beaker 2 : No reaction takes place

42. (B) Violet

43. (B) thermal decomposition reaction

> **Explanation:** The given reaction is a type of thermal decomposition because heat is required for the breakdown of a reactant, i.e., calcium carbonate decomposes into quick lime and carbon dioxide.
>
> $$\underset{\text{Calcium carbonate}}{CaCO_3(s)} \xrightarrow{\Delta} \underset{\text{Quick lime}}{CaCO(s)} + CO_2(g)$$

44. (C) Absorption of digested food

> **Explanation:** The small finger-like projections, i.e., villi present in intestine increase the surface area for better absorption of digested food.

45. (B) X

> **Explanation:** As the light ray undergoes two refractions, one of air-glass interface and the other at glass-air interface, therefore, path traced by student X is correct. Also, the emergent ray is parallel to incident ray and laterally displaced in the diagram of student X only.

46. (D) 4

> **Explanation:** $2Pb(NO_3)_2(s) \xrightarrow{Heat} 2PbO(s) + 4NO_2(g) + O_2(g)$

47. (C) Yellow > Green > Violet

48. (D) The distilled water does not have ions present in it

Section - C

49. (D) Sea shells

50. (D) 0-5 min

51. (B) Photosynthesis

52. (C) polluted water is acidic in nature hence it reacts with calcium carbonate

53. (D) All (I), (II) and (III) are correct

54. (A) behind the mirror

55. (B) convergent

56. (B) 90°

57. (C) Osmosis

58. (C) Adenosine triphosphate

59. (C) C- allows gaseous exchange between the leaf and the outside atmosphere through the stomata.

60. (A) Transpiration

Sample Paper 3

Section - A

1. (D) Basic.

> **Explanation:** When quick lime is added to water, it reacts to form slaked lime ($Ca(OH)_2$). Slaked lime or calcium hydroxide is basic in nature because it dissociates into OH^- ions when dissolved in aqueous solution.

2. (B) towards the screen

> **Explanation:** As in order to get a sharp image the screen should be near to lens.

3. (B) Starch breaking down into sugars

> **Explanation:** Amylase is a starch hydrolase enzyme that catalysis the conversion of starch to simple sugars. As a result, if salivary amylase is lacking in saliva, starch digestion is hampered.

4. (B) Colourless.

> **Explanation:** Phenolphthalein is used as an indicator in acid–base titrations. For this application, it turn acids to colourless solutions and bases to pink solutions.

5. (B) Sharing of electrons is involved in ionic bonds

6. (C) (I) and (II)

> **Explanation:** If the light rays coming from a point actually meet or converge at a point after reflection or refraction, then the image formed is called a real image.

7. (B) Small intestine

> **Explanation:** Bile is a dark green to yellowish brown fluid produced by the liver. It is stored in the gall bladder and it helps in the digestion of fats in the small intestine.

8. (D) Behind the mirror, virtual and erect

> **Explanation:** The image will be formed behind mirror, virtual and erect.

9. (A) Dry $Ca(OH)_2$

> **Explanation:** Chlorine gas reacts with dry $Ca(OH)_2$ to form bleaching powder.
>
> $$\underset{\substack{\text{Calcium hydroxide}\\ \text{(Slaked lime)}}}{Ca(OH)_2} + \underset{\text{Chlorine}}{Cl_2} \longrightarrow \underset{\substack{\text{Calcium Oxychloride}\\ \text{(Bleaching Powder)}}}{CaOCl_2} + \underset{\text{Water}}{H_2O}$$

10. (A) (I) only.

> **Explanation:** Exposure of silver chloride to sunlight for a long duration turns silver chloride grey due to the photolysis reaction in which the decomposition of the silver chloride takes place in the presence of sunlight leading to the formation of silver.

11. (C) Potassium

12. (C) All the colours of the white light travel with the same speed.

> **Explanation:** The white light in air or vaccum travel with the same speed but with different wavelengths and frequencies as air is not a dispersive medium.

13. (B) Yeast, mushroom, bread mould

> **Explanation:** Yeast, mushrooms, and bread mould all exhibit a saprophytic mode of nutrition. They use digestive enzymes secreted outside their bodies to break down complex organic substances and absorb basic molecules as nutrition.

14. (B) A-(iv), B-(i), C-(ii), D-(iii)

Explanation: A → (iv); When object is placed between infinity and the pole of convex mirror, image formed is virtual, erect and diminished.

B → (i); When object is at the centre of curvature of concave mirror, image formed is real, inverted and same size as that of object.

C → (ii); When object is between focus and centre of curvature of concave mirror, image formed is real, inverted and enlarged.

D → (iii); When object is at some distance from concave mirror beyond centre of curvature, image formed is real, inverted and diminished.

15. (B) a gas is evolved which burns with a pop sound

Explanation: $Zn + 2HCl \longrightarrow ZnCl_2 + H_2$
Hydrogen gas burns with a pop sound.

16. (D) Lime

Explanation: Marble, limestone and baking soda have carbonates which produces CO_2 gas

$$CaO + 2HCl \longrightarrow CaCl_2 + H_2O$$

17. (D) Red is the colour of courage and fear

18. (B) 1, 2, 3, and 6

Explanation: 1 is stomach which secretes pepsin in gastric juice.
2 is pancreas which secretes trypsin and amylase.
3 is small intestine which secrete intestinal luice (contain a number of enzymes) while 6 is salivary gland which secretes amylase in saliva.

19. (A) 6.5-7.5.

Explanation: A neutral pH is most conducive for life of fresh water plants and animals and pH range 6.5-7.5 is almost neutral.

20. (A) Early sunrise and late sunset

Explanation: Diagram given depicts early sunrise and late sunset due to atmospheric refraction.

21. (B) Iodine

22. (C) All the colours of the white light move with the same speed

23. (C) They convert carbon dioxide and water into carbohydrates in the absence of sunlight.

Explanation: Autotrophs take in food from the outside world and convert them into stored forms of energy. This material is taken in the form of carbon dioxide and water which is converted into carbohydrates in the presence of sunlight and chlorophyll.

24. (B) Water

Section - B

25. (D) Casteism

26. (B) 2.4

Explanation: Given, ${}_a\mu_g = 1.6$ and $\mu_g = 1.5$
Refractive index of diamond with respect to glass

$$= \frac{\text{Absolute refractive index of diamond } (\mu_d)}{\text{Absolute refractive index of glass } (\mu_g)}$$

So, absolute refractive index of diamond glass

= Refractive index of diamond glass

$({}_a\mu_g)$ × Absolute refractive index of glass (μ_g)

$$\mu_d = 1.6 \times 1.5 = 2.4$$

27. (D) Leaving the Stomach-Protein, amino acids and water, Leaving the small Intestine-Water

Explanation: In stomach, egg white is broken down to amino acids. It contains albumin protein which is not completely broken down. Since of it is further hydrolysed in intestine, from where amino acids are absorbed by food.

28. (A) Acid

Explanation: It is a reaction between a metal (Zn) and an acid (H_2SO_4).

29. (D) Branches-Z, Bronchiole-Y, Larynx-W, Rings of cartilage-X

Explanation: Larynx is at the beginning of trachea. After trachea, bronchi are found which further branch into bronchioles.

30. (B) refraction of light by different layers of varying refractive indices

Explanation: The twinkling of a star is due to atmospheric refraction of light of stars. This light, on entering the earth's atmosphere, undergoes refraction continuosly before it reaches the earth.

The path of rays of light coming from the distant star goes on varying slightly, the apparent position of the star fluctuates and the amount of starlight entering the eye flickers. The star sometimes appears brighter and at some other time fainter, which gives us the twinkling effect.

31. (B) A and R are true but R is not the correct explanation of A.

Explanation: Dil. HNO_3 is an oxidising agent therefore, zinc gives NO and not H_2 with dil. HNO_3. On reaction with ammonia, it gives hydrogen gas. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

32. (D) A is false but R is true

Explanation: Left ventricle has thickest muscles because it pumps the blood to the whole body. Thus, assertion is false but reason is true.

33. (A) Both A and R are true and R is the correct explanation of A.

Explanation: A chemical reaction becomes faster at higher temperatures because at high temperature, the movement of particles are greater. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

34. (C) A is true but R is False.

Explanation: Convex mirrors are used for rear view on vehicles. We use only convex mirrors for rear view. Convex mirrors will always give erect and diminished image of the object. They provide a wider field for clear view. For this reason, the convex mirrors are fitted on both sides of the vehicles. Thus, the assertion is true, but reason is false.

35. (A) A-(5), B-(1), C-(2), D-(3), E-(4)

Explanation: The correct matches are as follows:

Nephridia are responsible for removal of waste from the body of an earthworm. Renal corpuscle constitutes Bowman' capsule and glomerulus.

Osmoregulation is the process wherein osmotic pressure of a mammal is regulated via filtration and purification with the help of kdineys. Dialysis is the procedure followed to remove excess fluid and waste from body when kidneys do not work propery. Urine is pale yellow in colour.

36. (A) (A) and (B)

37. (A) greater than unity

Explanation: Since light ray in the medium B bends towards normal. So it has greater refractive index and lesser velocity of light w.r.t. medium A.

So refractive index of medium B w.r.t. medium A is greater than unity.

38. (D) Carries blood to body-3, Carries blood to lungs-1, Carries blood from lungs-4, Carries blood from body-2

Explanation: Vessel 1 is pulmonary artery and carries blood to lungs.

Vessel 2 is vena cava and carries blood from body to heart.

Vessel 3 is aorta and carries blood from heart to body.

Vessel 4 is pulmonary vein and carries blood from lungs to heart.

39. (D) (II) and (III) only

40. (C) Refraction, dispersion and internal reflection

Explanation: Dispersion means while light getting segregated into its component colours. Refraction bends the incident light to an angle that causes internal reflection and finally rainbow is formed.

41. (A) Ductility.

Explanation: Ductility is the property which allows the metals to be drawn into thin wires.

42. (B) Blue

43. (A) there is lack of oxygen

Explanation: Muscle cells respire anaerobically to produce lactic acid in the scarcity of oxygen during excessive physical exercise.

44. (A) Dissolution of sodium hydroxide in water

Explanation: Exothermic reactions are those in which energy is released in form of heat. The dissolution of sodium hydroxide in water produces heat and make a beaker warm in which dissolution takes place.

45. (A) Longest distance through the atmosphere

46. (C) Scattering of light by air molecules.

47. (B) All metal oxides react with water to give salt and acid

> **Explanation:** Most metal oxides are insoluble in water but some of these (*e.g.*, Na_2O, CaO) dissolve in water to form alkalies, not salt and acid *e.g.*,
>
> $$Na_2O(g) + H_2O(l) \longrightarrow 2NaOH\ (aq)$$

48. (A) Blue colour is scattered and red colour reaches our eye

Section - C

49. (C) Both primary and secondary rainbows are virtual images

50. (C) Dispersion and total internal reflection

51. (D) Induction

52. (C) refraction and total internal reflection of light

53. (A) The litmus paper used is dry

54. (D) (B) and (D)

55. (A) Pink in acidic medium, yellow in basic medium

56. (A) Absorb moisture present in soda lime

57. (B) It leads to variation, which is necessary for evolution.

58. (D) Genes

59. (B) Diabetes

60. (D) Sexual reproduction—gametes are produced, Asexual Reproduction—gametes not produced

Sample Paper 4

Section - A

1. (A) Thermal decomposition

> **Explanation:** A thermal decomposition reaction occurs when heat is applied to a compound causing it to decompose (break down) into multiple different chemical substances. An example is when baking soda (sodium bicarbonate) is heated.
>
> $$2NaHCO_3(s) \longrightarrow CO_2(g) + H_2O(g) + Na_2CO_3(s)$$

2. (D) Small intestine

> **Explanation:** Food is broken down in the small intestine by enzymes secreted by the pancreas and bile from the liver because it contains all of the enzymes required for the digestion of every type of food, the food is finally digested in the small intestine of the alimentary canal.

3. (B) Scattering of light.

> **Explanation:** Scattering of light contributes to the reddish appearance of the sun at sunrise or sunset. Near the horizon. Most of the blue light and shorter wavelengths are scattered away by the particles. Therefore, the light that reaches our own eyes is of longer wavelengths. The red light has the maximum wavelength. This gives rise to the reddish appearance of the sun.

4. (B) Colourless.

Explanation: Phenolphthalein is used as an indicator in acid–base titrations. For this application, it turn acids to colourless solutions and bases to pink solutions.

5. (D) Basic.

Explanation: When quick lime is added to water, it reacts to form slaked lime ($Ca(OH)_2$) . Slaked lime or calcium hydroxide is basic in nature because it dissociates into OH^- ions when dissolved in aqueous solution.

6. (D) Trypsin digests proteins and lipase digests emulsified fats.

Explanation: Pancreatic juice contains the digestive enzymes amylases, lipases, and trypsin, which are secreted by the pancreas. Amylase degrades starch, trypsin degrades proteins, and lipase degrades emulsified lipids.

7. (C) $6CO_2 + 12H_2O \xrightarrow[\text{Sunlight}]{\text{Chlorophyll}} C_6H_{12}O_6 + 6O_2$

Explanation: The correct reaction of photosynethesis is

$$\underset{\text{Carbon dioxide}}{6CO_2} + \underset{\text{Water}}{12H_2O} \xrightarrow[\text{Sunlight}]{\text{Chlorophyll}} \underset{\text{Glucose}}{C_6H_{12}O_6} + \underset{\text{Glucose}}{6O_2} + \underset{\text{Water}}{6H_2O}$$

8. (A) A rectangular glass slab

Explanation: Here, the emergent rays are parallel to the direction of the incident ray. Therefore, a rectangular glass slab could be inside the box as the extent of bending of light ray at the opposite parallel faces AB (air-glass interface) and CD (glass-air interface) of the rectangular glass slab are equal and opposite. This is why the ray emerges parallel tot he incident ray.

9. (D) (ii), (iii) and (iv)

Explanation: A double displacement reaction is the reaction in which the ions replace each other from their salt solution and these reactions can be accompanied by the formation of the precipitate or the formation of the insoluble salt.

10. (A) lens slightly towards the screen

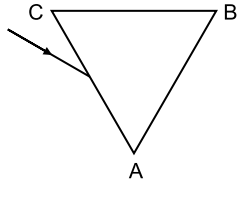
Explanation: Since, candle is at the farthest end but not at the infinity. So, image will be formed between focus and centre of curvature of lens, but parallel rays from sun will converge at the focus. So, the distance between lens and screen should be reduced to get the image of the sun.

11. (B) Lower surface of leaf

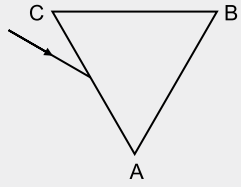
Explanation: Lower surface of leaf has more stomata than upper surface of leaf. That is why, maximum transpiration occurs there.

12. (A) $CaCO_3$

13. (B) (ii)



Explanation: Out of the following orientations, figure (ii) represents the case in which, after dispersion, the third colour from the top is blue, *i.e.*, colour of the sky.



14. (A) MnO_2 is getting reduced whereas HCl is getting oxidized.

Explanation: When manganese dioxide reacts with hydrochloric acid, the manganese dioxide (MnO_2) reduces to $MnCl_2$ while hydrochloric acid (HCl) oxidizes to chlorine gas (Cl_2).

$$\overbrace{MnO_2 + 4HCl \rightarrow MnCl_2 + Cl_2}^{\text{Removal of Oxygen – Reduction}} + \underbrace{2H_2O}_{\text{Addition of Oxygen – Oxidation}}$$

15. (A) E-Oesophagus, C-Liver, D-Stomach, E-pancreas

Explanation: In the given picture of human digestive system, B is Oesophagus, C is Liver, D is Stomach and E is pancreas.

16. (D) (B) and (C) together

Explanation: Metals when react with the oxygen, give basic-oxides/amphoteric oxide. ZnO is an amphoteric oxide.

Option (B) and (C) indicates that, ZnO react with the acid (H_2SO_4) as well as with the base (NaOH).

Hence, (B) and (C) together gives the nature of oxide.

17. (A) Its light is least scattered.

Explanation: At noon the sun appears white because the light from the sun is directly over head and travels relatively shorter distance. So, only a little light is scattered.

18. (B) Lenticel

Explanation: The guard cells regulate the opening and closing of stomata to maintain the flow of respiratory as well as photosynthetic gases (CO_2 and O_2) in the plants.

19. (A) A

Explanation: A ray of light passing through the principal focus of a convex lens after refraction will emerge parallel to the principal axis.

20. (B) Fe_3O_4

Explanation: Iron does not reacts with the cold and hot water, but it reacts with steam to form metal oxide and hydrogen.

$$3\,Fe + 4H_2O \longrightarrow Fe_3O_4 + 4H_2$$

21. (C) Yes, atmospheric refraction of light

> **Explanation:** Star light coming from far undergoes atmospheric refraction due to gradually changing refractive index of the different layers of atmosphere and hence rays coming from stars refract downwards causing the appearance of the stars above than they actually are.

22. (B) 10^{-8}

23. (D) Yeast, mushroom, brad mould

> **Explanation:** These are saprotrophs and digestion in saprotrophs take place before ingestion. They break down and convert complex organic molcules present in dead and decaying matter into simpler substances outside their body.

24. (B) Black

Section - B

25. (A) Hydrogen

> **Explanation:** During the reaction between a metal and an acid, hydrogen gas is released.

26. (C) Ingestion → digestion → absorption → assimilation

> **Explanation:** After ingestion, food is digestd in buccal cavity, stomach and small intestine. Then the producs of digestion, *i.e.*, glucose and amino acids are absorbed from the ileum region into the blood which carries these products to body tissues and cells where assimilation occurs.

27. (D) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 20 cm and 25 cm respectively.

28. (D) Both (A) and (B)

> **Explanation:** The gaseous reactants and products in any chemical reaction can be deonstrated using the symbol (*g*) or '↑'.
>
> The liquid, aqueous and solid states of reactants and products are represented by te notations, (*l*), (*aq*) and (*s*) respectively.

29. (B) (ii) and (iii)

> **Explanation:** Nitrogen is taken up in the form of inorganic nitrates or nitrites or it is taken up as organic compounds from atmospheric nitrogen.

30. (C) $n_1 > n_2$

> **Explanation:** Since, for device X the light rays are coming from a object at infinity passes through the device X and forms a real image on a screen on right side. Since, convex lens forms a real and inverted image at focus when object is at infinity. So, device X is converging lens or convex lens of focal length 20 cm.
>
> For device Y, the beam of parallel rays from infinity is incidence on the left side and after reflection a real image is formed on the screen. This device should be a mirror. Also, the light rays are getting converged, so mirror is converging in nature it is a concave mirror of focal length 25 cm.

31. (C) A is true but R is False.

Explanation: Hydrogen peroxide is a highly reactive metal that can react with light or heat to produce water. It decomposes into water and oxygen in the presence of sunlight. To prevent this reaction with light and heat it is stored in coloured bottles so that light cannot pass through it. Thus assertion is true but reason is false.

32. (A) Both A and R are true and R is the Correct explanation of A.

Explanation: When the object is placed at an infinity position, the image formed by a concave mirror will be placed at the focus. Then the size of the image will be highly diminished and point-size. So, the nature of the image formed by the concave mirror is real and inverted. Thus both assertion and reason are true and reason is the correct explanation of assertion.

33. (B) A and R is true but R is not the correct explanation of A.

Explanation: Ureters function is to carry urine from kidney to the bladder, it does not depend on what lining it has. Thus both assertion and reason are true, but reason is not the correct explanation of assertion.

34. (A) Both A and R are true and R is the Correct explanation of A.

35. (B) 30 cm in front of the mirror

Explanation: The rays from sun *i.e.*, from infinity, are parallel to the principal axis after reflection convere at a point, known as focus.

Therefore, focal length (f) of concave mirror is 15 cm. And we know that, same size, real and inverted image is formed by concave mirror when object is placed at $2f$ or centre of curvature. So, object should be placed at $15 \times 2 = 30$ cm.

36. (A) An increase in pH value from 7 to 14 indicates an increase in hydrogen ions

37. (D) to store urine

Explanation: 'X' given in the diagram is the part of human excretory system called urinary bladder. Its main function is to store urine temporarily until it passed out through urethra.

38. (D) A-2, B-3, C-4, D-1

Explanation: All organic acids have source from nature as they occur in animals, plant, vegetables, etc. lactic acid is present in curd. Citric acid is present in organes. Acetic acid is present in tomato.

39. (C) Light energy is converted into chemical energy

40. (D) III and IV

Explanation: Calcium reacts less violently with water and the bubbles of hydrogen gas produced stick to the surface of calcium. Due to which it floats over water surface.

$$Ca(s) + 2H_2O(l) \longrightarrow \underset{\text{Calcium hydroxide}}{Ca(OH)_2\,(aq)} + H_2(g) \uparrow$$

Much less heat is produced in this reaction due to which hydrogen gas formed does not catch fire.

41. (D) Water < Acetic acid < Hydrochloric acid

42. (B) Helps in translocation of sugar in plants

Explanation: Transpiration is the loss of water in vapour form from the leaves. Translocation of sugars in plant is not performed by transpiration process.

43. (B) refractive index
44. (A) C_2H_5OH
45. (D) Pressure at constant density
46. (A) A has a higher concentration of hydronium ions than solution C
47. (D) 1.501
48. (C) more total internal reflection due to greater refractive index of diamond

Section - C

49. (B) Calcium oxide
50. (D) Calcium hydroxide
51. (D) Combination reaction
52. (C) $Ca(OH)_2 + CO_2 \longrightarrow CaCO_3 + H_2O$
53. (A) Increases
54. (A) Atmospheric refraction
55. (C) Atmospheric refraction
56. (D) Atmospheric refraction alone explains the rainbow formation
57. (C) Chlorophyll
58. (A) water
59. (C) carbon dioxide
60. (A) glucose and oxygen

Sample Paper 5

Section - A

1. (B) 2 : 1

Explanation: The mole ratio of hydrogen and oxygen gases liberated during the electrolysis of water is 2:1. Since two atoms of hydrogen and one atom of oxygen is present in the water molecule respectively.

$$2H_2O \longrightarrow 2H_2 + O_2$$

2. (B) Baking soda

Explanation: Baking soda is sodium bicarbonate ($NaHCO_3$)in anhydrous form without any water of crystallisation.

Other options: Blue Vitriol: It is hydrated salt of copper sulphate containing 5 molecules of water of crystallisation ($CuSO_4 . 5H_2O$).

Washing soda: It is hydrated salt of sodium carbonate containing 10 molecules of water of crystallisation ($Na_2CO_3 . 10H_2O$).

Gypsum: It is hydrated salt of calcium sulphate containing 2 molecules of water of crystallisation ($CaSO_4 . 2H_2O$).

3. (B) The Y chromosome in zygote.

Explanation: As X chromosomes from mother and Y chromosomes from father in the zygote as XY chromosme determines the boy child.

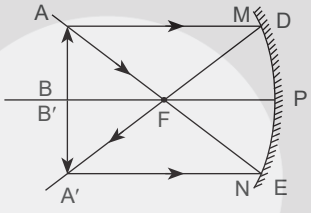
4. (B) Electrical conductivity in solid state.

Explanation: Ionic compounds can conduct electricity in aqueous solution or molten state. In solid state, they are non-conductors of electricity because of the absence of free ions.

5. (B) 30 cm in front of the mirror

Explanation: In case of a concave mirror, image size becomes equal to the object size when the object distance equals to the radius of curvature *i.e.*, twice the focal length.

So, the object has to be placed at a distance of $(15 \times 2) = 30$ in front of a concave mirror.



6. (B) towards the screen

Explanation: As in order to get a sharp image the screen should be near to lens.

7. (D) Ptyalin

Explanation: The pancreas secretes pancreatic juice, which contains various enzymes like trypsinogen, chymotrypsinogen, elastase, carboxypeptidase, pancreatic lipase, and amylase. Pancreatic juice does not include Ptyalin. It is produced by the gastric glands in the stomach

8. (C) Violet and blue lights get scattered more than the lights of all other colours by the atmosphere.

Explanation: When sunlight passes through the atmosphere the fine particles in air scatter the blue colour (shorter wavelength) more strongly than red colour. The scattered blue light enters our eyes and the sky appears blue.

9. (A) Sunny

10. (A) (I) and (II)

Explanation: Statement 1 and 2 are correct. Saliva cannot emulsify fats and teeth do not change insoluble molecules into soluble ones. They only help in the chewing of food.

11. (C) 1, 9

12. (C) R

Explanation: R (Trachea) is supported by rings of cartilage.

13. (A) White

Explanation: When the magnesium ribbon is burned in the air it burns with the white dazzling flame leading to the formation of the white colour precipitate.

14. (C) Violet and blue lights get scattered more than light of all other colours by the atmosphere

Explanation: A clear cloudless day-time sky is blue because molecules in the air scatter blue light from the sun more than they scatter red light. Rayleigh scattering is inversely proportional to the fourth power of wavelength, so that shorter wavelength violet and blue light will scatter more than the longer wavelengths (yellow and especially red light).

15. (A) (I) only

Explanation: Exposure of silver chloride to sunlight for a long duration turns silver chloride grey due to the photolysis reaction in which the decomposition of the silver chloride takes place in the presence of sunlight leading to the formation of silver.

16. (C) (III)

17. (D) Both (A) and (C)

18. (C) Female reproductive parts: A, E, G, I Male reproductive parts: B, C, H

19. (B) Ureter

Explanation: Part 1 is ureter. It transports urine from kidney to urinary bladder.

20. (B) Reaction will not occur

Explanation: Dry HCl will not dissociate to produce H^+ ions thus reaction will not occur.

$$MnO_2 + 4HCl \xrightarrow[\text{Aqueous}]{} MnCl_2 + Cl_2 + 2H_2O$$

$$MnO_2 + HCl \xrightarrow[\text{Dry}]{} \text{No reaction}$$

21. (B) (I)-r, (II)-p, (III)-q, (IV)-s, (V)-t

Explanation: p-Pharynx, q-trachea, r-alveoli, s-diaphragm, t-ribs

22. (B) 1.41

Explanation: Given, angle of incidence, $i = 45°$

Angle of refraction, $r = 30°$

Refractive index of liquid with respect to air,

$$_a n_l = \frac{\sin i}{\sin r}$$

$$= \frac{\sin 45°}{\sin 30°} = 1.14$$

23. (B) It reacts with cold water to form magnesium oxide and evolves hydrogen gas

Explanation: Magnesium metals does not react with cold water.

Mg reacts with hot water and steam both, to give magnesium hydroxide and hydrogen.

$$Mg(s) + H_2O(l) \longrightarrow \underset{\text{Magnesium hydroxide}}{Mg(OH)_2} + H_2(g) \uparrow$$

24. (C) Zinc sulphate and hydrogen gas

Explanation: During the reaction between a zinc and sulphuric acid, zinc sulphate and hydrogen gas is released.

$$Zn + H_2SO_4 \longrightarrow ZnSO_4 + H_2$$

Section - B

25. (A) Figure A

Explanation: A ray of light passing through a principal focus, after refraction from a conex lens will emerge parallel to the principal axis.

26. (A) Carbon dioxide-✓, Alcohol-✓, Lactic Acid-✕, Water-✕

Explanation: During anaerobic respiration in yeast, following equation shows the products synthesised;

$$C_6H_{12}O_6 \longrightarrow 2C_2H_5OH + 2CO_2$$

27. (B) Lead acetate

Explanation: Lead acetate can be used in place of lead nitrate because like, lead nitrate, it is also a soluble salt in water.

The reaction is

$$\underset{\text{Lead acetate}}{Pb(CH_3COO)_2} + 2KI \longrightarrow \underset{\text{Lead iodide (yellow ppt).}}{PbI_2} + 2CH_3COO^-K^+$$

28. (D) Red light has the highest wavelength among all colours so it is scattered least

29. (A) Bulb A and B do not glow but bulb C glows

Explanation: Glucose and alcohol solutions do not conduct electricity as they do not have ions. Dil. HCl contains ions so the flow of ions is responsible for the flow of current.

30. (B) Diffusion of oxygen from the alveoli into the blood

Explanation: Exchange of O_2 and CO_2 at the site of alveoli occurs due to diffusion gradient as the inhaled air carries more O_2 than blood and blood contains more CO_2 than the atmospheric air. Processes in other optiosn are all energy requiring.

31. (B) Both A and R are true but R is not the Correct explanation of A.

Explanation: Smaller Y chromosome, does not decide the gender of the child. Its presence is important not the size. Thus both assertion and reason are true but reason is not the correct explanation of assertion.

32. (A) Both A and R are true and R is the correct explanation of A.

Explanation: Silver bromide is kept in coloured bottles because it decomposes in presence of light, so as to prevent this decomposition; it is kept in coloured bottles. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

33. (A) Both A and R are true and R is the correct explanation of A.

Explanation: Solutions of compounds like alcohol and glucose do not show acidic character because like acids such as HCl which dissociates into H^+ and Cl^- ion these solutions do not dissociate into ions. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

34. (D) A is false but R is true.

Explanation: For total internal reflection the angle of incidence should be greater than the critical angle. As critical angle is approximately 35°. Therefore, total internal reflection is not possible. Thus assertion is false, but reason.

35. (A) $\sqrt{3}/\sqrt{2}$

Explanation: According to Snell's law,
Refractive index of medium B relative to medium A,

$$n_{BA} = \frac{\sin i}{\sin r}$$

where, i and r are angles made by incident ray and refracted ray with the normal respectively
Here, $i = 60$, $r = 45°$

$$\therefore \quad n_{BA} = \frac{\sin 60°}{\sin 45°} = \frac{\sqrt{3}}{2} \times \frac{\sqrt{2}}{1} = \frac{\sqrt{3}}{\sqrt{2}}$$

36. (B) Bulb will glow in NaOH solution but not in alcohol

Explanation: After replacement, bulb glows in B as NaOH solution contains Na^+ and OH^- ions, which are responsible for electrical conductivity.

37. (B) Yeast, mushroom, bread mould

Explanation: Yeast, mushroom and bread mould are fungi having heterotrophic mode of nutrition. They break down the dead organic matter in to small particles outside their body and then absorbd it.

38. (B) Scattering of light

Explanation: The orange-reddish appearance of the sun at sunrise or sunset is due to least scatering of red light as red light have the maximum wavelength and the rays of light have to travel a larger part of the atmosphere.

39. (D) Weak acid and strong base

40. (B) – 20 cm

Explanation: Given, object size, $h = +10.0$ mm $= +1.0$ cm ($\because$ 1 cm = 10 mm)
Image size, $h' = -5.0$ mm $= -0.5$ cm (for real image)
Image distance, $v = -30$ cm (For real image)
Focal length, $f = ?$

As, magnification, $m = \frac{h'(\text{image size})}{h(\text{object size})}$

Also, magnification, $m = \frac{-v}{u} \Rightarrow -\frac{h'}{h} = \frac{-v}{u}$

$$\frac{0.5}{1} = \frac{-30}{u} \Rightarrow u = -60 \text{ cm}$$

Using mirror formula,

$$\Rightarrow \quad \frac{1}{f} = \frac{1}{v} + \frac{1}{u}$$

$$\Rightarrow \quad \frac{1}{f} = \frac{1}{-30} - \frac{1}{60} = \frac{-2-1}{60} = \frac{-3}{60}$$

$$\Rightarrow \quad f = -20 \text{ cm}$$

41. (D) (II) and (IV)

> **Explanation:** $3BaCl_2(aq) + Al_2(SO_4)_3(aq) \longrightarrow 2AlCl_3(aq) + 3BaSO_4(s)$
> This is a double displacement reaction as ions of reactions are exchanged to form two new compounds. The reaction is also known as precipitation reaction as precipitate of barium sulphate is being formed.

42. (B) The colours in the order of increasing frequency are 1 < 2 < 3 < 4 < 5 < 6 < 7

43. (D) Zinc, iron, silver and copper are less reactive than aluminium

> **Explanation:** Zn, Fe, Ag and Cu are less reactive than aluminium. Aluminium resides at the top of the activity series. While Zn, Fe, Ag and Cu lies below aluminium in the activity series. Thus, being less reactive than aluminium, they cannot displace Al from its salt solution *i.e.*, $Al_2(SO_4)_3$ solution.

44. (C) no urea

> **Explanation:** The dialysing fluid has the same composition as that of blood plasma except that it is devoid of nitrogenous waste such as urea.

45. (A) Both S_1 and S_2 are true and S_2 is the correct explanation of S_1

46. (A) $KMnO_4$ is an oxdising agent, it oxidises $FeSO_4$

> **Explanation:** $KMnO_4$ is the presence of dil. H_2SO_4, *i.e.*, in acidic medium, acts as strong reducing agent. In acidic medium, $KMnO_4$ oxidises ferrous sulphate to ferric sulphate.
> $$\underset{\text{(Purple)}}{2KMnO_4} + 8H_2SO_4 + 10FeSO_4 \longrightarrow K_2SO_4 + 5Fe_2(SO_4)_3 + \underset{\text{(Colourless)}}{2MnSO_4} + 8H_2O$$

47. (C) A beam of white light gives a spectrum on passing through a hollow prism.

48. (A) Changed first to red and then to blue

> **Explanation:** In acidic, blue litmus changes to red and in basic solution, red litmus changes to blue. Hence, blue litmus first changes its colour to red and then to blue.

Section - C

49. (D) all of the above

50. (B) (I), (III) and (IV)

51. (C) pollination, fertilisation, embryo, seedling

52. (C) carpels

53. (C) Electrolytic Refining

54. (D) Acidified copper sulphate solution

55. (A) Anode mud

56. (A) At cathode

57. (A) total Internal Reflection of light by the various layers of air

58. (D) optical illusion caused due to Total Internal Reflection

59. (B) Inferior mirage and superior mirage

60. (C) illusion of the presence of water and is a result of refraction of light from a non-uniform medium

Sample Paper 6

Section - A

1. (B) Oxidation.

Explanation: Fatty foods become rancid due to the process of Oxidation. Food turns rancid when the fats and oils within them get oxidised and the taste and smell of the food changes. It is produced by aerial oxidation of unsaturated fat present in foods and other products, marked by unpleasant odour or flavour.

2. (C) Excretion

Explanation: Kidneys are the bean shaped reddish brown paired organs in human beings. These are a part of excretory system that helps in the process of urine formation. Thus kidneys help in excretion.

3. (B) 10 cm

Explanation: The distance of image is equal to the distance of object from mirror. Therefore, the distance of image from mirror is 10 cm.

4. (C) $CaCO_3$

Explanation: $C\alpha(OH)_2 + CO_2 \longrightarrow C\alpha CO_3 + H_2O$

When carbon dioxide is passed through lime water, it turns milky due to formation of white precipitate of calcium carbonate.

5. (D) Potassium is larger in size than sodium

Explanation: Sodium is from Period 2 and Potassium is from Period 3 of same Group I. In Modern periodic table, down the group metallic character increases as size of the atom increases due to which electron losing tendency increases and so, metallic character increases.

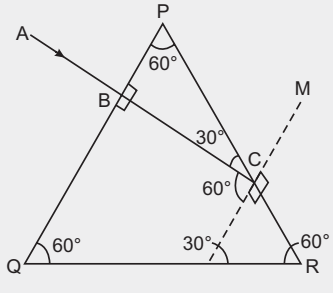
6. (B) Water in guard cells

Explanation: The entry of water into guard cells aids in the opening of guard cells, the guard cell becomes turgid as a result of this. Water going out from guard cells aids in the closing of guard cells, as a result of this the guard cells become flaccid.

7. (A) 60°

Explanation: At face PQ, angle of incidence is 0° as ray AB falls normally on this face. This normally incident ray AB goes undeviated and strikes the face PR at point C. The angle of incidence, at point C with the normal MN is the angle NCB.

From the geometry of figure, it is clear that ∠NCB is equal to 60°.



Therefore, angle of incidence at face PQ is 0° and angle of incidence at face PR is 60°.

8. (C) a bulging-out surface

9. (C) HNO_3

Explanation: Nitric acid (HNO_3) does not give hydrogen gas on reacting with metals (except Mg and Mn) because it is a strong oxidising agent and oxidises the evolved H_2 gas to water and itself get reduced to the oxides of nitrogen. Whereas metals such as magnesium and manganese react with very dilute HNO_3 to evolve H_2 gas.

10. (C) equal to $2f$

Explanation: An object is at C,

$$u = -C = -2f$$

Mirror formula,

$$\frac{1}{f} = \frac{1}{u} + \frac{1}{v}$$

For concave mirro, f is negative

$$-\frac{1}{f} = -\frac{1}{2f} + \frac{1}{v}$$

$$\frac{1}{v} = -\frac{1}{f} + \frac{1}{2f} = \frac{-1}{2f}$$

$$v = -2f$$

Distance of image from pole is $2f$.

11. (C) Stomach and pancreas

Explanation: Pepsin enzyme is secreted by the stomach that breaks down proteins into smaller amino acids. Trypsin enzyme is secreted by the pancreas that breaks down proteins.

12. (A) White

Explanation: When the magnesium ribbon is burned in the air it burns with the white dazzling flame leading to the formation of the white colour precipitate.

13. (C) Refraction, dispersion and internal reflection

Explanation: In the formation of rainbow, water droplets refract and disperse the incident sunlight, then reflect it internally and finally refract it again when it comes out as the rainbow.

14. (B) An electrolyte

Explanation: An electrolyte is a solution that can conduct electricity due to ions present in it.

15. (B) Small intestine

16. (B) Na

Explanation: Sodium is so soft that can be cut using a knife. It reacts with oxygen or moisture present in air readily and reacts with water vigorously. Because of this sodium is stored in kerosene oil to prevent any reaction or accident.

17. (B) Impure spectrum

18. (A) Aorta

Explanation: Oxygenated blood is carried back to the left atrium through the pulmonary vein and is pumped into the left ventricle before leaving the heart through the aorta. The thick muscular wall of the left ventrcile of the heart contracts to generate the highest pressure possible to pump blood into the aorta and to the rest of the body.

19. (D) A ray of light in this case does not follow law of reflection

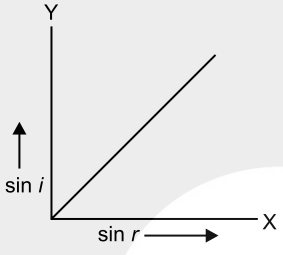
Explanation: When a ray of light falls normally or perpendicular on the surface of a mirror, then the angle of incidence ($\angle i$) and angle of reflection ($\angle r$) are zero. The ray of light reflects back along the same path without any deviation. Therefore, follows the law of reflection.

20. (A) Sodium hydroxide

Explanation: If suphuric acid is replaced with sodium hydroxide, it will produce sodium zincate (Salt) and hydrogen gas.

$$Zn(s) + 2NaOH(aq) \longrightarrow Na_2ZnO_2(aq) + H_2(g)$$

21. (A)



Explanation: The relation between since of angle incidence (i) and since of angle of refraction (r) can be defined by Snell's Law, according to which,

$$\frac{\sin i}{\sin r} = \text{constant} = n$$

when, n is the refractive index of the medium.

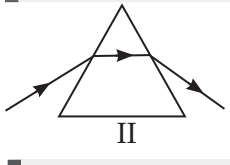
22. (D) A-(4), B-(3), C-(2), D-(1)

Explanation: Barium sulphate is white in colour. Ferrous sulphate is light green in colour. Copper sulphate is blue is colour. Zinc sulphate is colourless in colour.

23. (B) Yeast, mushroom, bread mould

Explanation: Yeast, mushrooms, and bread mould all exhibit a saprophytic mode of nutrition. They use digestive enzymes secreted outside their bodies to break down complex organic substances and absorb basic molecules as nutrition.

24. (B)



Explanation: The incident ray should bend towards the normal on entering the prism as glass is an optically denser medium. Similarly, the emergent ray should bend away from the normal as air is an optically rare medium than glass. Path of ray of light passing through the prism is correct in (II).

Section - B

25. (B) B, C and D

> **Explanation:** The In the reactivity series aluminium is above zinc, iron and copper which makes it more reactive than these elements. Mrignayni would observe that out of the four solutions, reaction will take place in solution B, C and D. The reactions are as follows:
> **In Solution B:** Aluminium will displace iron from ferrous sulphate solution to form aluminium sulphate and iron is precipitated
> $$2FeSO_4(aq) + 2Al(s) \longrightarrow Al_2(SO_4)_3(aq) + 3Fe(s)$$
> **In Solution C:** Aluminium will displace Zinc from zinc sulphate solution to form aluminium sulphate and zinc is precipitated.
> $$2Al(s) + 3ZnSO_4(aq) \longrightarrow Al_2(SO_4)_3(aq) + 3Zn(s)$$
> **In Solution D:** Aluminium will displace copper from copper sulphate solution to form aluminium sulphate and copper is precipitated.
> $$2Al(s) + 3CuSO_4(aq) \longrightarrow Al_2(SO_4)_3(aq) + 3Cu(s).$$

26. (A) Plants absorb CO_2 from air and H_2O from the soil as raw materials and convert them into glucose.

27. (A) A

28. (D) Decomposition of calcium carbonate to form quick lime and carbon dioxide.

> **Explanation:** Decomposition of calcium carbonate to form quick lime and carbon dioxide is an exothermic reaction since this process absorbs heat from atmosphere.

29. (B) Starch breaking down into sugars

> **Explanation:** Amylase is a starch hydrolase enzyme that catalysis the conversion of starch to simple sugars. As a result, if salivary amylase is lacking in saliva, starch digestion is hampered.

30. (C) All the colours of the white light travel with the same speed.

> **Explanation:** The white light in air or vaccum travel with the same speed but with different wavelengths and frequencies as air is not a dispersive medium.

31. (C) A is true but R is false.

> **Explanation:** Hydrogen peroxide is a highly reactive metal that can react with light or heat to produce water. It decomposes into water and oxygen in the presence of sunlight. To prevent this reaction with light and heat it is stored in coloured bottles so that light cannot pass through it. Thus assertion is true but reason is false.

32. (A) Both A and R are true and R is the correct explanation of A.

> **Explanation:** In most animals, tissue oxidation are carried out by aerobic respiration. But sometimes in aerobically respiring organisms, anaerobic metabolism takes place in certain tissues like skeletal muscles which do not get as much as required oxygen and produces lactic acid. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

33. (B) Both A and R are true but R is not the correct explanation of A.

Explanation: Plane mirror forms virtual image of real object and real image of virtual object. Thus both assertion and reason are true but reason is not the correct explanation of the assertion.

34. (C) A is true, but R is false.

Explanation: The colour of copper sulphate solution changes when iron nail is kept immersed in it due to the displacement reaction taking place between iron and copper leading to formation of iron sulphate. Thus assertion is true, but reason is false.

35. (B) Black absorbs all the colours

Explanation: Black colour is a good absorber.

36. (A) (I) only

Explanation: Exposure of silver chloride to sunlight for a long duration turns silver chloride grey due to the photolysis reaction in which the decomposition of the silver chloride takes place in the presence of sunlight leading to the formation of silver.

37. (C) Stomach and pancreas

Explanation: Pepsin enzyme is secreted by the stomach that breaks down proteins into smaller amino acids. Trypsin enzyme is secreted by the pancreas that breaks down proteins.

38. (B) Low melting point

39. (C) (I) and (IV)

Explanation: Fermentation is an anaerobic process in which sugar is converted to acids or alcohol in the absence of oxygen. This process occurs in yeast, bacteria, and oxygen-depleted muscle cells in the same way that lactic acid fermentation does, but it takes place in the cytoplasm rather than in the mitochondria.

40. (D) (I) and (IV)

Explanation: Good thermal conductivity and high melting point of aluminum are the properties that makes it suitable for making cooking utensils.

41. (D) (II), (III) and (IV) only

42. (C) (A) Fertilisation may occur but no implantation occurs in uterus

43. (B) prism

44. (C) Plaster of Paris

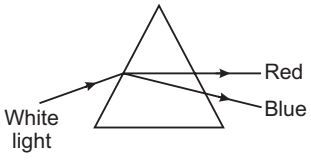
45. (A) will not split

46. (B) Has low melting point

Explanation: Reaction between compound X and Y forms compound Z. In the reaction, X loses electron and Y gains electron which means compound Z is a crystalline solid as ionic or electrovalent bond is formed between X and Y. As compound Z is a crystalline solid, it has high melting point and it conducts electricity in the molten state. Thus, the option which is incorrect is that it has low melting point.

47. (B) Refraction

48. (A)



Section - C

49. (C) NaCl shows hygroscopic properties only due to impurities
50. (D) Neutral
51. (A) Na_2CO_3
52. (C) No change in pH of the water
53. (B) focal length
54. (B) focus point and centre of curvature
55. (B) 30 cm
56. (C) centre of curvature
57. (A) human digestive system
58. (B) crushing the food with our teeth
59. (A) enzymes
60. (A) hydrochloric acid, pepsin, and mucus

Sample Paper 7

Section - A

1. (C) (I) and (III).

> **Explanation:** This reaction is an example of displacement and redox reaction since oxygen replaces hydrogen from the ammonia molecule leading to the formation of NO similarly O_2 is getting reduced in the reaction and ammonia is getting oxidised thus the redox reaction takes place in this reaction. Therefore the above reaction is both the displacement and the redox reaction.

2. (D) – 6 cm

> **Explanation:** Given, radius of curvature, R = 12 cm
> We know that the focal of concave mirror has negative value.
> Hence, focal length,
>
> $$f = \frac{-R}{2}$$
> $$= \frac{-12}{2}$$
> $$= -6 \text{ cm}$$

3. (C) Secreted by liver and stored in gall bladder

> **Explanation:** Bile juice is secreted by the liver and stored in gall bladder. It helps in the breakdown of fats into fatty acids.

4. (A) Gastric juice

Explanation: Gastric juice is acidic in nature because its pH ranges from 1.5-3.5.

5. (C) $CaSO_4 \frac{1}{2} H_2O$

Explanation: The chemical formula of plaster of paris is $CaSO_4 . \frac{1}{2} H_2O$. The half a molecule of water in the formula means that two molecules of $CaSO_4$ share one molecule of water so that the effective water of crystallisation for one $CaSO_4$ unit comes to half molecule of water.

6. (A) 2.3°

Explanation: For a small-angled prism and for a small angle of incidence, deviation is given by,

$$\delta = (n_g - 1) A$$

Where, n_g is refractive index of glass of prism

For Prism $P_1 = \delta_1 = (n_{g_1} - 1)A_1$

For Prism $P_2 = \delta_2 = (n_{g_2} - 1)A_2$

For no deviation $\delta_1 = \delta_2$

$$(n_{g_1} - 1)A_1 = (n_{g_2} - 1)A_2$$

$$A_2 = \frac{(n_{g_1} - 1)}{(n_{g_2} - 2)} A_1$$

$$= \frac{(1 - 54 - 1)}{(1.92 - 1)} \times 4° \qquad \begin{bmatrix} n_{g_1} = 1.54 \\ n_{g_2} = 1.92 \\ A_1 = 4° \end{bmatrix}$$

$$A_2 = 2.3°$$

7. (D) Carbohydrates

Explanation: Salivary amylase, which is present in saliva, digests carbohydrates such as starch. It is also digested in the pancreas by pancreatic juices.

8. (C) both (A) and (B)

9. (D) (I) and (IV)

Explanation: Good thermal conductivity and high melting point of aluminum are the properties that makes it suitable for making cooking utensils.

10. (B) Conservation of mass

Explanation: The law of conservation of mass states that "mass can neither be created nor destroyed." So both the sides of the chemical reactions have to be balanced to ensure that this law is followed and thus the number of the reactant and the product molecules remains same on both side of the equation.

11. (B) Formation of bubbles of a colourless and odourless gas.

> **Explanation:** When a few drops of acetic acid is added to the test tube containing sodium bicarbonate powder, sodium acetate is formed along with the release of colourless and odourless CO_2 gas which can be observed as the bubbles in the test tube.

12. (D) gets deviated and bends towards the thicker part (base) of the prism.

> **Explanation:** In a prism, the ray of light from air into glass bends towards the normal. The ray of light from glass to air bend away from the normal in both cases, when a ray of light passes through a prism, it bends towards the base of the prism.

13. (C) Stomach

> **Explanation:** Proteins are first broken down in the stomach. Pepsinogen is released by peptic cells in the stomach. Pepsinogen is a proenzyme which is converted into active pepsin. Pepsin breaks down proteins into smaller polypeptides.

14. (D) Device X is a convex lens and device Y is a concave mirror, whose focal lengths are 20 cm and 25 cm respectively.

> **Explanation:** Since, for device X the light rays are coming from a object at infinity passes through the device X and forms a real image on a screen on right side. Since, convex lens forms a real and inverted image at focus when object is at infinity. So, device X is converging lens or convex lens of focal length 20 cm.
>
> For device Y, the beam of parallel rays from infinity is incidence on the left side and after reflection a real image is formed on the screen. This device should be a mirror. Also, the light rays are getting converged, so mirror is converging in nature it is a concave mirror of focal length 25 cm.

15. (A) $3Fe(s) + 4H_2O(g) \longrightarrow Fe_3O_4(s) + 4H_2(g)$

16. (D) All of these

17. (C) 1.6244

> **Explanation:**
>
> $$_i\mu_p = \frac{\mu_p}{\mu_i}$$
>
> $$\Rightarrow \quad 1.25 = \frac{\mu_p}{1.31}$$
>
> $$\Rightarrow \quad \mu_p = 1.31 \times 1.25 = 1.6244$$

18. (B) Digestion of proteins

19.

	List A	List B
(B)	Ammonia, Sodium Hydroxide, Baking soda	HCl, Citric Acid, Oxalic Acid, Nitric Acid, Vinegar

20. (C) *p*, *y* and *z*

> **Explanation:** Angle *p* is the angle of incidence as this angle is formed between the incident ray and the normal. Angle *y* is angle of emergence as it is formed between emergent ray and the normal and angle *z* is the angle of deviation as it is formed between the emergent ray and the incident ray. Hence, the correct answer is *p*, *y*, *z*.

21. (B) (C) Starch

> **Explanation:** Due to the presence of starch, when iodine solution was added to rice water, the solution becomes blue black. Iodine forms starch Iodide complex when it comes in contact of the amylose structure of starch. The blue-black colour comes from the starch iodide complex.

22. (A) Scattering of light is not enough at such heights.

> **Explanation:** The scattering of light takes place due to the presence of particles in the atmosphere. This is because the atmospheric medium is very rare at higher altitudes, the scattering of light that takes at these place is very low due to which the sky appears dark to the passengers flying at very high altitudes.

23. (C) Secreted by liver and stored in gall bladder

> **Explanation:** Bile juice is secreted by the liver and stored in gall bladder. It helps in the breakdown of fats into fatty acids.

24. (C) There is no change in the blue litmus paper and the red litmus paper turns blue.

> **Explanation:** Saponification is the alkaline hydrolysis of the fatty acid esters. Hence the solution is basic, bases with blue litmus gives no colour change. Whereas, on dipping red litmus paper in a mixture of saponification reaction it turns blue.

Section - B

25. (B) Absorb carbon dioxid

26. (B) (A) Concave lens

> **Explanation:** From the figure, light rays A and B diverges after refraction from optical component X. This means X is diverging lens or concave lens.

27. (D) Trypsin digests proteins and lipase digests emulsified fats

> **Explanation:** Pancreatic juice contains the digestive enzymes amylases, lipases, and trypsin, which are secreted by the pancreas. Amylase degrades starch, trypsin degrades proteins, and lipase degrades emulsified lipids.

28. (A) The litmus paper used is dry

29. (C) lower surface of the leaf.

> **Explanation:** The student will have to observe at the lower surface of the leaf as at lower side of the leaf stomata will be protected from loss of water.

30. (A) Red colour is least scattered

> **Explanation:** The sun appears red at sunrise and sunset because the colour red is the least scattered.

31. (B) Both A and R are true but R is not the correct explanation of A.

Explanation: Aluminium is a highly reactive metal but it is resistant to corrosion. The reason for this is that aluminium reacts with oxygen present in air to form a thin layer of aluminium oxide. This oxide layer is very stable and prevents further reaction of aluminium with oxygen. It is light in weight and a good conductor of heat. Therefore, used to make utensils for cooking. Thus both assertion and reason are true but reason is not the correct explanation of assertion.

32. (C) A is true but R is false.

Explanation: Dark phase do not take place at night, it takes place independent of light, so light is not a mandatory factor here. Thus assertion is true but reason is false.

33. (A) Both A and R are true and R is the correct explanation of A.

Explanation: When a piece of copper metal is added to dilute sulphuric acid, the solution turns blue. It is because, copper reacts with dilute sulphuric acid to form blue copper (II) sulphate solution. Thus both assertion and reason are true and reason is the correct explanation of the assertion.

34. (D) A is false but R is true.

Explanation: If the ray's cross focal point of convex lens, they become diverging. Thus assertion is false but reason is true.

35. (D) They have thick elastic walls without valves inside, blood flows under high pressure and carry blood away from the heart to different parts of the body.

Explanation: Arteries are thick-walled blood that pumps blood away from the heart at a high pressure because their walls are highly muscular, they do not have valves.

36. (C) I and III

Explanation: $4NH_3(g) + 5O_2(g) \rightarrow 4NO(g) + 6H_2O(g)$
Oxygen displaces the hydrogen of ammonia. Hence, this is a displacement reaction. The nitrogen of ammonia is getting oxidized with the addition of oxygen. Both oxidation and reduction occur at the same time, the above reaction is referred to as a redox reaction. Thus the above reaction is an example of the displacement as well as redox reaction.

37. (C) All the colours of the white light move with the same speed.

38. (D) $\text{Glucose} \xrightarrow{\text{Cytoplasm}} \text{Pyruvate} \xrightarrow{\text{Cytoplasm}} \text{Ethanol + Carbon dioxide}$

Explanation: In yeast, the breakdown of pyruvate takes place in cytoplasm. Pyruvate converts into ethanol and carbon dioxide.

39. (C) C

40. (C) Yellow > Green > Violet

41. (C) First oxidation reaction, then redox reaction

42. (B) Blue > Green > Red

43. (B) Yeast, mushroom, bread mould

Explanation: Yeast, mushrooms, and bread mould all exhibit a saprophytic mode of nutrition. They use digestive enzymes secreted outside their bodies to break down complex organic substances and absorb basic molecules as nutrition.

44. (B) decomposition reaction
45. (B) Violet
46. (B) Blue > Yellow > Orange
47. (B) To coat the surface with a layer of paint.
48. (C) Violet and blue lights get scattered more than the lights of all other colours by the atmosphere.

Explanation: When sunlight passes through the atmosphere the fine particles in air scatter the blue colour (shorter wavelength) more strongly than red colour. The scattered blue light enters our eyes and the sky appears blue.

Section - C

49. (C) same size as that of the object
50. (D) either plane or convex
51. (C) Concave, plane and convex
52. (B) a concave mirror but not a convex mirror
53. (B) Concentrated H_2SO_4
54. (D) (I), (III) and (IV) are correct
55. (B) (I) and (II) are correct
56. (A) Production of HCl
57. (C) Cramps occurred due to formation of lactic acid in leg muscles.
58. (A) Hemodialysis
59. (A) Insulin
60. (C) 180 L daily

❑❑

Social Science

Sample Question Paper

Social Science [Code (087)]

Term – I

Time : 90 Minutes **Max. Marks : 40**

General Instructions :

1. The Question Paper contains four sections.
2. Section A has 24 questions. Attempt any 20 questions.
3. Section B has 22 questions. Attempt any 18 questions.
4. Section C has 12 questions (Case based). Attempt any 10 questions.
5. Section D contains 2 Map based questions. Attempt both the questions.
6. All questions carry equal marks.
7. There is no negative marking.

Section – A

(Attempt any 20 out of 24 questions)

1. Who among the following was the founder of 'Young Europe' underground secret society in Berne?

A. Giuseppe Garibaldi
B. Giuseppe Mazzini
C. Count Cavour
D. Otto Von Bismark

Ans. B. Giuseppe Mazzini

2. Which of the following was the result of the Act of Union, 1707?

A. Unification of Germany
B. Unification of the kingdom of Great Britain
C. Unification of Italy
D. Unification of Vietnam

Ans. B. Unification of the kingdom of Great Britain

3. Identify the correct statement with regard to the 'Zollverein' from the following options:

A. It was a coalition of Prussian states formed to manage political alliances.
B. Its aim was to bind the Prussia politically into an association.
C. It was a Custom Union at the initiative of Prussia.
D. It helped to awaken and raise national sentiment in Europe.

Ans. C. It was a Custom Union at the initiative of Prussia.

4. Which of the following countries were involved in the Three Wars with Prussia and ended with victory and unification of Germany?

A. Austria, Poland and France
B. Austria, Denmark and France
C. Austria, Turkey and France
D. Austria, England and France

Ans. B. Austria, Denmark and France

5. Identify the ideology under which people demanded freedom of markets in early-nineteenth-century Europe.

A. Romanticism B. Liberalism C. Socialism D. Rationalism

Ans. B. Liberalism

6. Choose the correctly matched pair about the crops and the areas they are grown in:

A. Groundnut- Assam B. Tea- Gujarat

C. Coffee- Karnataka D. Sugarcane – Chhattisgarh

Ans. C. Coffee- Karnataka

7. The piece of land left uncultivated for the past 1 to 5 agricultural years is called _____. Choose the correct option:

A. Barren land B. Forest land C. Grazing land D. Fallow land

Ans. D. Fallow land

8. Which one of the following conferences was convened to discuss environmental protection and socio-economic development at the global level in 1992?

A. Kyoto Protocol

B. Montreal Protocol

C. Rio de Janeiro Earth Summit

D. World Summit on Sustainable Development

Ans. C. Rio de Janeiro Earth Summit

9. India has land under a variety of relief features. Which of the following features ensure perennial flow of some rivers, provide facilities for tourism and ecological aspects?

A. Plains B. Plateaus C. Islands D. Mountains

Ans. D. Mountains

10. Which one of the following human activities has contributed significantly in land degradation?

A. Deforestation B. Crop rotation C. Shelter belts D. Ploughing

Ans. A. Deforestation

11. Which one of the following countries adopted majoritarianism in their Constitution?

A. Nepal B. India C. Sri Lanka D. Bangladesh

Ans. C. Sri Lanka

12. Identify the significant reason of power sharing from the following options.

A. Reduces socio-economic conflicts

B. Provides ethnic -cultural development

C. Allows people to enjoy specific rights

D. Restricts supremacy of one party

Ans. A. Reduces socio-economic conflicts

13. Apart from the Central and the State Government, Belgium has a third kind of government as well. Identify this third kind of government from the following options:

A. Democratic Government B. Socialist Government

C. Community Government D. Liberal Government

Ans. C. Community Government

14. Which of the following countries is an example of 'Coming Together Federation'?

A. India B. Sri Lanka C. USA D. Belgium

Ans. C. USA

15. Why is the power shared amongst different organs of government called as horizontal distribution of power? Identify the correct reason.

A. It gives judiciary more power than legislature and executive.

B. It allows different organs of government to be placed at the same level.

C. It gives representation to different ideologies at political level.
D. It influences and coordinates in the decision-making process.

Ans. B. It allows different organs of government to be placed at the same level.

16. In India's federal system, the Central and the State governments have the power to legislate on all those subjects which are included in the:

A. Union list
B. State list
C. Concurrent list
D. Residuary subjects

Ans. C. Concurrent list

17. Which of the following states of India enjoy special powers under Article 371A of the Constitution of India?

A. Nagaland
B. Rajasthan
C. Himachal Pradesh
D. Tamil Nadu

Ans. A. Nagaland

18. Which one of the following is an example of Primary Sector activity?

A. Baking
B. Outsourcing
C. Farming
D. Banking

Ans. C. Farming

19. Which of the following measures the proportion of literate population in the seven and above age group?

A. Net Attendance Ratio
B. Enrollment Rate
C. Literacy Rate
D. Drop out Ratio

Ans. C. Literacy Rate

20. Which one of the following is the correct meaning of 'Average Income'?

A. The total income of the country divided by its earning population.
B. The total income of the country divided by its total population.
C. The total income of all the residents of the country.
D. The total income from the domestic and foreign sources.

Ans. B. The total income of the country divided by its total population.

21. Which one of the following best describes Human Development Index (HDI)?

A. Improvement in science, information and technology
B. Improvement in health, education and income
C. Improvement in information and communication
D. Improvement in investment, finance and technology

Ans. B. Improvement in health, education and income

22. "Consequences of environmental degradation do not respect national or state boundaries." Which of the following is the essence of this statement?

A. Economic development
B. Human Development
C. Sustainable Development
D. National Development

Ans. C. Sustainable Development

23. Which of the following examples fall under an organized sector?

A. A daily wage labourer working for a contractor.
B. An engineer getting all employment benefits.
C. A cleaning staff in a private school
D. A tailor stitching clothes at his home.

Ans. B. An engineer getting all employment benefits.

24. Mahatma Gandhi National Rural Employment Guarantee Act 2005 states a guarantee of minimum 100 days of employment per year. If government is unable to fulfil these 100 days of an employment, the government would have to_____.

Choose the correct option:

A. Pay the compensation in lieu of these days
B. Provide another scheme for the same
C. Pay at least 1/3 percent allowance
D. Provide health care as compensation

Ans. A. Pay the compensation in lieu of these days

Section - B

(Attempt any 18 out of 22 questions)

25. Following image is the personification of Germany commonly associated with the Romantic Era and the Revolutions of 1848. Identify its name from among the following options.

Options:

A. Marianna B. Philip Viet C. Germania D. La Italia

Ans. C. Germania

26. Which of the following option(s) is/are correct about Balkan nationalism?

I. The Balkan region became part of the conflict because of the Ottoman Empire.
II. The region comprised of ethnic groups included Greeks, Serbs, Montenegro, etc.
III. British and ethnic nationalities struggled to establish their identity.

Options:

A. I & II B. II & III C. Only II D. Only 1

Ans. A. A. I & II

27. Why did the weavers in Silesia revolt against contractors in 1845? Identify the appropriate reason from the following options.

A. Contractors did not pay their dues.
B. Contractors appointed few on high posts.
C. Contractors used government policies.
D. Contractors gave them loans on high interests.

Ans. A. Contractors did not pay their dues

28. Identify the major aspect that helped in the formation of a nation-state in Britain.

A. In 1688, the monarch of Britain fought war with English Parliament.
B. The Parliament through a bloodless revolution seized power from the monarchy.
C. The British nation was formed as a result of a war with Ireland and Wales.
D. The formation of a nation-state in Britain was the result of many revolts.

Ans. B. The Parliament through a bloodless revolution seized power from the monarchy.

29. Identify the soil with the help of clues given below –
- develops in areas with high temperature and heavy rainfall
- is low in humus content
- found in the hilly areas of Karnataka, Kerala and Tamil Nadu

A. Forest soil B. Yellow soil C. Black soil D. Laterite soil

Ans. D. Laterite soil

30. Which of the following categories of resources can we put Tidal energy in?

A. Renewable resources B. Non-renewable resources
C. Actual resources D. Potential resources

Ans. A. Renewable resources

31. Consider the following statements on power sharing and select the answer using the codes given below:

I. It is good for democracy.
II. It creates harmony in different groups
III. It brings transparency in the governance.
IV. It brings socio-political competition among parties.

Options:

A. I, II & III B. II, III & IV C. I, III & IV D. I, II & IV

Ans. A. I, II & III

32. How does Judiciary act as an umpire in a federal nation?

A. Judiciary rules over Centre and State
B. Centre and Judiciary work collectively
C. Courts can change structure of Constitution
D. Courts use the power to interpret the Constitution

Ans. D. Courts use the power to interpret the Constitution

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Sri Lanka adopted Sinhala as the only official language of the state.

Reason (R): The government of Sri Lanka wanted to foster their culture, language and religion.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Ans. A. Both A and R are true, and R is the correct explanation of A.

34. Match the following items given in Column A with those in Column B.

Column A	**Column B**
I. Information Technology	1. Concurrent List
II. Police	2. Union List
III. Education	3. State List
IV. Defence	4. Residuary Subjects

Choose the correct answer from the option given below:

A. I-4, II-3, III-1, IV-2 B. I-3, II-4, III-1, IV-2
C. I-4, II-1, III-3, IV-2 D. I-4, II-2, III-1, IV-3

Ans. A. I-4, II-3, III-1, IV-2

35. Anita is appearing in an examination conducted for recruitment to Central Government positions. In how many languages as mentioned in the 8th Schedule can she opt to take the exam? Select the appropriate option.

A. 18 B. 21 C. 22 D. 25

Ans. C. 22

36. Identify the administrative system of Indian Government with the help of the following information.

- Power shared between Central and State Governments to Local Governments.
- It is called as a third tier of the Government.
- The State Governments are required to share some powers and revenue with them.

Select the appropriate option from the following.

A. Federal system B. Unitary Federal system
C. Decentralised system D. Unitary system

Ans. C. Decentralised system

37. Which of the following options prove that India is a quasi-federal state?

I. More powers with Centre
II. Residuary subjects with Centre
III. Equal subjects with Centre and States
IV. Currency and Railways with Centre

Options:

A. I, III & IV B. I, II & IV C. II, III & IV D. II, III & IV

Ans. B. I, II & IV

38. Identify the correct statement/s about the theory of Federalism in the Indian Constitution.

I. The Constitution declared India as a Union of States.
II. Sharing of power between the Union Government and the State governments is basic to the structure of the Constitution.
III. It is easy to make changes to this power sharing arrangement.
IV. The Parliament can on its own change this arrangement.

Options:

A. I & II B. II & III C. I & III D. II & IV

Ans. A. I & II

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Human Development mentions how much socio-economic development has happened in a country.

Reason (R): Comparison of national income of two countries explains Human Development Index.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Ans. C. A is true but R is false.

Explanation: Human Development Index (HDI) is the summary of average achievement in key of Human development and it shows how much socio-economic development has happened in a country. Thus, assertion is true, but reason is false.

40. Choose the correct option from the following:

	List I (Example)	**List II (Sectors)**
A.	Courier	Tertiary Sector
B.	Fisherman	Secondary Sector
C.	Carpenter	Primary Sector
D.	Transporter	Secondary Sector

Ans. A. Courier Tertiary Sector

41. Read the following data and information carefully and select the most appropriate answer from the given options:

TABLE FOR COMPARISON OF THREE COUNTRIES					
Countries	Monthly income of citizens in 2007 (in Rupees)				
	I	II	III	IV	V
Country A	9500	10500	9800	10000	10200
Country B	500	500	500	500	48000
Country C	5000	1000	15000	4000	25000

Rita is an employee of a multinational company who gets transferred to different countries after every three years of service. She has been given an opportunity to choose any one out of the three countries mentioned in the table above as her next job location. She calculates average income of all these countries as per the given data and chooses to be transferred to Country A. Identify the reason for which Rita has chosen country A.

A. Most of its citizens are rich and stable
B. Has most equitable distribution of income
C. National income of its citizens is higher
D. Average income of its citizens is lower

Ans. B. Has most equitable distribution of income

42. Vijay is undernourished as his weight is 45 kgs and his height is 1.78 meters. Find out his Body Mass Index (BMI) from the following options.

A. 12.6 B. 13.5 C. 14.7 D. 15.2

Ans. C. 14.7

Explanation: $\text{BMI} = \frac{\text{Weight}}{[\text{Height}]^2} = \frac{45}{1{\cdot}78 \times 1{\cdot}78} = 14.7$

The nearest value to 14·2 is 14·7. Thus the BMI is 14·7

43. A woman works at a sweet shop in her village on a contract basis and gets meagre salary after working the entire day. She doesn't get any holidays or paid leave, rather her employer deducts her salary whenever she is absent from work. Find out in which of the following sectors she is working?

A. Primary Sector
B. Service Sector
C. Organized Sector
D. Unorganised Sector

Ans. D. Unorganised Sector

44. According to 2017-2018 data, the share of different sectors in employment (percentage) in India was

- Primary Sector - 44%
- Secondary Sector - 25%
- Tertiary Sector - 31%

Out of the three sectors, why did the ratio of employment in Primary Sector high? Select the most suitable option from the following:

A. Workers in the Primary Sector are underemployed
B. Low job opportunities in Secondary Sector
C. Efforts of labour are not equivalent in all the sectors
D. Outsourcing of job opportunities in Secondary Sector

Ans. A. Workers in the Primary Sector are underemployed

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Crude oil reserves in the entire world are depleting, we need to find a sustainable substitute for it.

Reason (R): Oil and petrol prices are increasing day by day.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true

Ans. B. Both A and R are true, but R is not the correct explanation of A.

> **Explanation:** Human beings are using these resources indiscriminately and this has led to the depletion of resources. Thus, both assertion and reason are true but reason is not the correct explanation of the assertion.

46. A man is employed on a food processing farm where he has to do a lot of manual work. His wife and daughter also help him in his work on the farm every day. Which type of employment is this an example?

A. Under employment
B. Seasonal employment
C. Over employment
D. Cyclical employment

Ans. A. Under employment

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions by choosing the most appropriate option:

Grimms' Fairy Tales is a familiar name in Germany. The brothers Jacob and Wilhelm Grimm were born in the German city of Hanau. While both of them studied law, they soon developed an interest in collecting old folktales. They spent six years travelling from village to village, talking to people and writing down fairy tales, which were handed down through the generations. These were popular both among children and adults.

In 1812, they published their first collection of tales. Subsequently, both the brothers became active in liberal politics, especially the movement for freedom of the press. In the meantime, they also published a 33-volume dictionary of the German language.

The Grimm brothers also saw French domination as a threat to German culture and believed that the folktales they had collected were expressions of a pure and authentic German spirit. They considered their projects of collecting folktales and developing the German language as part of the wider effort to oppose French domination and create a German national identity.

47. Why did the Grimm brothers give the tales a readable form without changing their folkloric character? Choose the correct option from the following:

A. The collection enjoyed wide distribution in Germany.
B. It became a model for the collecting of fantasy tales.
C. It formed the basis for the science of the language.
D. People easily accepted their written adventurous tales.

Ans. A. The collection enjoyed wide distribution in Germany.

48. The impact of literary contributions of Grimm brothers was widespread. Identify the best suitable option depicting the same from the following:

A. Development of cities and towns
B. Setting up of new political parties
C. Promotion of ethnic belonging
D. Emergence of socialist ideology

Ans. C. Promotion of ethnic belonging

49. Fill in the blank from the given options

The work of the Grimm Brothers influenced and inspired people to collect tales. They believed in a spirit of _____ and considered it essential for the reflection of national identity.

A. Culturalism
B. Conservatism
C. Extremism
D. Liberalism

Ans. A. Culturalism

50. Why the foreign domination was considered a threat to nation building? Select the best suitable option from the following in reference to the context.

A. Exploitation of natural resources
B. Erosion of native values and ethos
C. Violence and mass killing of people
D. Spread of new diseases in the country

Ans. B. Erosion of native values and ethos

51. How were the Germans able to connect with their culture? With reference to the above context, infer the appropriate option.

A. Through the feeling of formal way of communication
B. Through the feeling of oneness as European community
C. Through the feeling of collective belonging among nationals
D. Through the feeling of coherence in reference to mannerism

Ans. C. Through the feeling of collective belonging among nationals

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Regimes of 1815 did not tolerate criticism and dissent.

Reason (R): Conservative regimes were autocratic.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Ans. A. Both A and R are true, and R is the correct explanation of A.

Read the source given below and answer the questions by choosing the most appropriate option:

There has been a gradual shift from cultivation of food crops to cultivation of fruits, vegetables, oil-seeds and industrial crops. This has led to the reduction in net sown area under cereals and

pulses. With the growing population of India, the declining food production puts a big question mark over the country's future food security.

The competition for land between non-agricultural uses such as housing etc. and agriculture has resulted in reduction in the net sown area. The productivity of land has started showing a declining trend. Fertilisers, pesticides and insecticides, which once showed dramatic results, are now being held responsible for degrading the soils. Periodic scarcity of water has led to reduction in area under irrigation. Inefficient water management has led to water logging and salinity.

53. One can infer from the above given information that marginal and small farmers have been pushed out of cultivation. Which one of the following is the prominent cause?

A. Food and fruit crops are expensive in market
B. Shift to multifarious crops according to demand
C. Periodic scarcity of water in many regions
D. Soil degradation and extensive Green Revolution

Ans. D. Soil degradation and extensive Green Revolution

54. Read the following statements and find the correct from the given options:

I. Indian farmers are diversifying their cropping pattern.
II. They are shifting production from cereals to fruits, vegetables, etc.
III. Jute is in high demand in the Indian market.

Options:

A. I & II B. II & III C. III Only D. II Only

Ans. A. I & II

55. According to the information given above, there has been reduction in the net sown area under cereals and pulses. Identify the reason.

A. Lack of markets to sell cereals and pulses
B. Earn more income from non-agricultural sector
C. Need of huge labour in cultivating cereals and pulses
D. Availability of more profits from commercial crops

Ans. D. Availability of more profits from commercial crops

56. 'Fertilisers, pesticides and insecticides, which once showed dramatic results, are now being held responsible for degrading the soil.' Infer the positive effects of these inputs noticed earlier from the following statements.

A. These inputs have shown increased outputs and productivity.
B. These are integral to the process of reducing agrarian losses.
C. These inputs can cut the amount of harvestable produce.
D. These are the leading causes of mortality and health problems.

Ans. A. These inputs have shown increased outputs and productivity.

57. There are states in India which are using fertilisers, pesticides and insecticides at excessive level to increase their agricultural production. Identify the states which are at prominent level from the following options.

A. Karnataka and Kerala B. Haryana and Punjab
C. Punjab and Gujarat D. Haryana and Telangana

Ans. B. Haryana and Punjab

58. Food production provides the base for food security and is a key determinant of food availability. Why is this trend shifting towards industrial crops? Choose the correct option in reference to the context.

A. To improve the land use pattern B. To use intensive farming techniques
C. To improve the fertility of soil D. To fetch more income and high earnings

Ans. D. To fetch more income and high earnings

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.

59. On the political map of India, 'A' is marked as a dam. Identify it from the following options.

A. Salal
B. Bhakra-Nangal
C. Tehri
D. Rana Pratap Sagar

Ans. B. Bhakra-Nangal

60. On the same map, 'B' is also marked as a major Tea cultivating state. Identify it from the following options.

A. Assam
B. Punjab
C. Bihar
D. Gujarat

Ans. A. Assam

❑❑

Sample Paper 1

Social Science

Section - A

(Attempt any 20 out of 24 questions)

1. In 1848 who tried to unite the regions of German confederation into a nation state by an elected parliament?
A. Conservatives
B. Educated middle - class
C. Otto von Bismarck
D. Kaiser William I

2. Unification of Germany took place between :
A. 1814–1815
B. 1821–1848
C. 1866–1871
D. 1797–1905

3. Identify what the Olive branch around the sword signifies :
A. Being freed
B. Readiness to fight
C. Heroism
D. Willingness to make peace

4. ''When France sneezes, the rest of Europe catches cold''. Who among the following said this popular line?
A. Giuseppe Mazzini
B. Matternich
C. Otto von Bismarck
D. Guiseppe Garibaldi

5. The Treaty of Constantinople of 1832 recognised Greece as _____.
A. an independent nation
B. a colonial power
C. a nation-state
D. a colony

6. Choose the correctly matched pairs about months and cropping seasons:
A. October to December - Zaid
B. Onset of monsoon - Kharif
C. Onset of winters - Rabi
D. April to May - Summer

7. Zaid is a short season which comes during the _____ months.
C. Winter
B. Summer
C. Rainy
D. Autumn

8. There is enough for everybody's need and not for anybody's greed'. Who said these words?
A. Gandhiji
B. Pt. Nehru
C. Sardar Patel
D. Medha Patkar

9. What is White revolution associated with?
A. Onion production
B. Introduction of technology.
C. Bhoodan and Grandam production
D. Production of milk

10. Rearing of silk worms for the production of silk is known as:
A. Horticulture
B. Apiary
C. Sericulture
D. Fishery

11. The power sharing arrangement in Belgium prevented the possible division of the country on :
A. Linguistic basis
B. Religious basis
C. Regional basis
D. None of the above

12. In which part of Sri Lanka are the Sri Lankan Tamils concentrated ?
A. North and South
B. East and West
C. North and East
D. South and East

13. In which year Sri Lanka emerged as an independent country ?
A. 1947 B. 1948 C. 1949 D. 1950

14. Which form of power sharing is most commonly referred as federalism ?
A. Horizontal division of power.
B. Vertical division of power.
C. Division of power among various communities.
D. Sharing of power among political parties.

15. 'Coming together federation' is not found in which of the following country ?
A. India B. U.S.A. C. Switzerland D. Australia

16. Which of the following includes foreign affairs?
A. Union list B. State list C. Concurrent list D. Federal list

17. Which of the following types of ethnic diversities found in Lebanon?
A. Religious divisions B. Gender divisions
C. Regional divisions D. Caste divisions

18. What does HDI stands for ?
A. Human Development Index B. Human Development Indicator
C. High Development Index D. Hampered Development Index

19. Which of the following best defines sustainable development ?
A. Sustainable development refers to the promotion of international trade so, that the world does not have to face scarcity of resources because of geographical constraints.
B. Sustainable development refers to ensuring Pareto efficiency in the countries so, that resources are optimally allocated, and it is not possible to reallocate resources to make some one better off without making someone else worse off.
C. Sustainable development refers to meeting human development goals while maintaining the ability of natural systems to provide and replenish natural resources upon which the economy is dependent.
D. Sustainable development refers to ensuring that no individual, firm or country can become a free rider, i.e., no one can benefit from resources without paying for them.

20. Which is the most common method of measuring economic development?
A. Profit loss B. Income
C. Sales D. Import-export

21. What are the developmental goals of landless rural labourers?
A. More days of work and better wages B. Acquirement of land for self-tilling
C. More hours of work D. Self-reliance

22. Besides seeking more income, there is something people resent, what is it?
A. Getting fewer wages for more work B. Discrimination
C. No work D. Poverty

23. If women are engaged in paid work, what difference does it make?
A. Their dignity in the household and society decreases
B. No difference
C. No dignity
D. Their dignity in the household and society increases

24. What is considered to be one of the most important attributes when we compare countries at the level of development?
A. Industrial development B. Resources of the country
C. Income D. Import-export

Section - B

(Attempt any 18 out of 22 questions)

25. What does the given image depict ?

A. A poster hung on wall.
B. Postage stamp with picture of Marianne.
C. Picture of Germania, Philip Veit.
D. Caricature of Otto von Bismark.

26. Which of the following option(s) is/are correct regarding the ideas promoted by Mazzini?
I. Opposition to monarchy and support to democratic republic.
II. Censorship of newspapers, books and songs.
III. To established liberty and freedom under a monarchy.

Options:
A. I & II B. II & III C. only I D. only II

27. What was the interpretation of the word 'La Talia' by the peasants of southern Italy?
A. La Talia was Victor Emmanuel's mother.
B. La Talia was Victor Emmanuel's sister.
C. La Talia was Victor Emmanuel's wife.
D. La Talia was Victor Emmanuel's daughter.

28. Identify the soil with the help of clues given below:
- Consists of various proportions of sand, silt and clay.
- As a whole is very fertile.
- Is ideal for the growth of sugarcane, paddy, wheat and other cereal crops.

A. Red soil B. Alluvial soil
C. Black soil D. Forest soil

29. Identify which of the following is not the characteristic of primitive subsistence farming?
A. Primitive tools B. Technology
C. Small patches of land D. Dependency on monsoon

30. Which of the following crops are grown in Rabi season?
A. Sugarcane and tobacco B. Pulses, muskmelon and vegetables
C. Wheat, peas and gram D. Rice, jute and millets

31. Consider the following statements on the term ' Resource' and write the answer using the codes given below:
I. It is technological acceptable.
II. It is economically feasible.
III. It is culturally acceptable.
IV. It is present in large quantity.

Options:
A. I, II & III B. II, III ,& IV C. I, III & IV D. I, II & IV

32. Human beings used resources indiscriminately and this has led to various major problems. What are these problems?
A. Accumulation of resources in few hands B. Not many problems
C. Wastage of resources D. Not well planned use of these resources

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A) : Nationalist tensions arose in Europe after 1871 and there was intense rivalry among the European powers over trade and colonies as well as naval and military might.

Reason (R) : Each power, such as Russia, Germany, England, Austro-Hungary was keen on countering the hold of other powers over the Balkans, and extending its own control over the area.

Options :

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

34. Match the following items given in column A with those in column B.

Column A	Column B
(a) Low yielding	(1) Nilgiri Hills
(b) High yielding	(2) Subsistence Agriculture
(c) Coffee cultivation	(3) West Bengal
(d) Tea cultivation	(4) Shifting Agriculture

A. a - 3, b - 2, c - 1, d - 4

B. a - 2, b - 3, c - 4, d - 1

C. a - 4, b - 3, c - 1, d - 2

D. a - 4, b - 2, c - 1, d - 3

35. Sri Lanka emerged as an independent country in 1948. The leaders of the Sinhala community sought to secure dominance over government by virtue of their majority. Which policy was adopted by the elected government to establish Sinhala supremacy? Select the appropriate option.

A. Romanticism

B. Liberalism

C. Majoritarianism

D. Federalism

36. Identify the form of government with the help of the following information.

- Legislature and executive are closely related and share powers with each other.
- Collective responsibility of the executive to the legislature
- There are two executives i.e. the elected President or King and the Prime Minister.

A. Parliamentary form of government

B. Unitary form of government

C. Decentralised form of government

D. Community form of government

37. Which of the following options stress on the facts about Prudential reasons of power sharing?

I. It gives a fair share to minority.

II. It reduces the possibility of conflict between social groups.

III. It ensures the stability of political order.

Options:

A. I & II

B. II & III

C. Only I

D. All of the above

38. Identify the correct statement/s about the theory of Federalism in Indian democracy.

I. It is a system of government in which the power is divided between a central authority and various constituent units of the country.

II. Federation and unitary governments are one and same.

III. In a federal system, the central government cannot order the state government to do something.

IV. Federalism has two levels of government.

Options:

A. I, II & III
B. II, III & IV
C. I, III & IV
D. I, II & IV

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Control on mining doesn't check land degradation.

Reason (R): In states like Gujarat, Rajasthan, Madhya Pradesh, overgrazing is responsible for land degradation.

Options :

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

40. Choose the correct option from the following:

List-I(Terms related to power sharing)	List-II (Definition)
A. Accommodation	War between people living in the same country
B. Civil war	Government of two or more political parties
C. Majoritarian	Rule by majority community
D. Coalition Government	Rule by all communities

41. Read the following data and information carefully and select the most appropriate answer from the given options:

Workers in different Sectors (In Millions)

Sectors	Organised	Unorganised	Total
Primary	1	231	238
Secondary	41	74	115
Tertiary	40	88	128
Total	82	398	475
Total in Percentage			100%

Students of class- IX collected estimated number of workers in India in the organised and unorganised sectors.

They want to find out percentage of people in the unorganised sector in agriculture? Choose the correct answer from the following:

A. 99%
B. 48%
C. 54%
D. 78%

42. Manisha is overweight as her weight is 66 kg and her height is 1.48 metre. Find out her Body Mass Index (BMI) from the following options.

A. 25.6
B. 30.1
C. 28.8
D. 27.9

43. A man saw large-scale farming of one crop resembling the factory production, using capital investment and application of modern science and technology in cultivation, processing and marketing the final product. Find out type of agriculture this man saw?

A. Intensive agriculture
B. Slash and burn agriculture
C. Extensive agriculture
D. Plantation agriculture

44. According to a data, the ETHNIC composition of Belgium country is as follows:

- 59 per cent lives in the Flemish region and speaks Dutch language.
- Another 40 per cent people live in the Wallonia region and speak French.
- Remaining one per cent of the Belgians speak German.

Out of these three features, what could have been the impact if 56% people wanted to have only their control over country.

A. Belgium must have followed the policy of Majoritarianism

B. Belgium must have followed the policy of Accommodation

C. Belgium must have followed the policy of Power sharing

D. Belgium must have followed the policy of different level of government

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): In Belgium, the leaders realised that the unity of the country is possible by respecting the feelings and interest of different countries.

Reason (R): Belgium did not favour any particular community.

Options :

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

46. Anil wants to go to USA because all the constituent States usually have equal power and are strong vis-à-vis the federal government. Of which type Federal government is this an example?

A. Coming Together

B. Holding Together

C. Democratic

D. Socialist

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Following the defeat of Napoleon in 1815, European governments were driven by a spirit of conservatism. Conservatives believed that established, traditional institutions of state and society –like the monarchy, the Church, social hierarchies, property and the family –should be preserved. Most conservatives, however, did not propose are turn to the society of pre-revolutionary days. Rather, they realised, from the changes initiated by Napoleon, that modernization could in fact strengthen traditional institutions like the monarchy. It could make state power more effective and strong. A modern army, an efficient bureaucracy, a dynamic economy, the abolition of feudalism and serfdom could strengthen the autocratic monarchies of Europe.

In 1815, representatives of the European powers –Britain, Russia, Prussia and Austria –who had collectively defeated Napoleon, met at Vienna to draw up a settlement for Europe. The Congress was hosted by the Austrian Chancellor Duke Metternich. The delegates drew up the Treaty of Vienna of 1815 with the object of undoing most of the changes that had come about in Europe

during the Napoleonic wars. The Bourbon dynasty, which had been deposed during the French Revolution, was restored to power, and France lost the territories it had annexed under Napoleon. A series of states were set up on the boundaries of France to prevent French expansion in future. Thus the kingdom of the Netherlands, which included Belgium, was setup in the north and Genoa was added to Piedmont in the south.

47. Which traditional institutions of state Conservatives wanted to preserve?

A. The monarchy
B. The Church
C. Social hierarchies, property and the family
D. All of these

48. Which dynasty was restored to power after defeat of Napoleon?

A. The Bourbon
B. Austrian
C. France
D. Germany

49. Fill in the blank from the given options:

The kingdom of the _____ was setup in the north and Genoa was added to Piedmont in the south.

A. Belgium
B. Bourbon
C. Netherlands
D. France

50. Which of the following statements is/are incorrect ?

I. European governments were not driven by a spirit of conservatism.
II. Conservatives believed that established, traditional institutions of state and society should be preserved.
III. Most conservatives realised, from the changes initiated by Napoleon, that modernization could in fact strengthen traditional institutions like the monarchy.

Options:

A. I & II
B. II & III
C. III only
D. I only

51. Why most conservatives did not propose are turn to the society of pre-revolutionary days?

A. Modernization could in fact strengthen traditional institutions like the monarchy.
B. It could make state power more effective and strong.
C. A modern army, an efficient bureaucracy, a dynamic economy, the abolition of feudalism and serfdom could strengthen the autocratic monarchies of Europe.
D. By all of these.

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): In 1815, representatives of the European powers –Britain, Russia, Prussia and Austria –who had collectively defeated Napoleon, met at Vienna to draw up a settlement for Europe.

Reason (R): The Congress was hosted by the Austrian Chancellor Duke Metternich.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Consequences of environmental degradation do not respect national or state boundaries; this issue is no longer region or nation specific. Our future is linked together. Sustainability of development is comparatively a new area of knowledge in which scientists, economists, philosophers and other social scientists are working together. In general, the question of development or progress is perennial. At all times as a member of society and as individuals we need to ask where we want to go, what we wish to become and what our goals are. So the debate on development continues.

53. Sustainability of development is considered a new area of knowledge. Which one of the following is the prominent reason?

A. Our future is linked together
B. This subject is perennial
C. It includes other scientists also
D. We do not know our goal

54. Read the following statements and find the INCORRECT from the given options

I. In general, the question of development or progress is not perennial.
II. At all times as a member of society and as individuals we should not ask where we want to go, what we wish to become and what our goals are.
III. So the debate on development continues.

Options:

A. I & II
B. II & III
C. III only
D. II only

55. According to information given above, at all times as a member of society and as individuals we need to ask where we want to go, what we wish to become and what our goals are. Identify the reason.

A. The question of development or progress is perennial.
B. Consequences of environmental degradation do not respect national or state boundaries.
C. Sustainability of development is comparatively a new area of knowledge .
D. This issue is no longer region or nation specific.

56. So the debate on development continues. Infer the meaning of debate noticed earlier from the following statements.

A. The question of development or progress is perennial.
B. At all times as a member of society we need to ask where we want to go and what our goals are.
C. As an individual we need to ask what we wish to become and what our goals are.
D. Sustainability of development is comparatively a new area of knowledge.

57. This issue is no longer region or nation specific. Identify the issue which is at prominent level from the following.

A. Sustainable development
B. Environmental degradation
C. Development
D. All of these

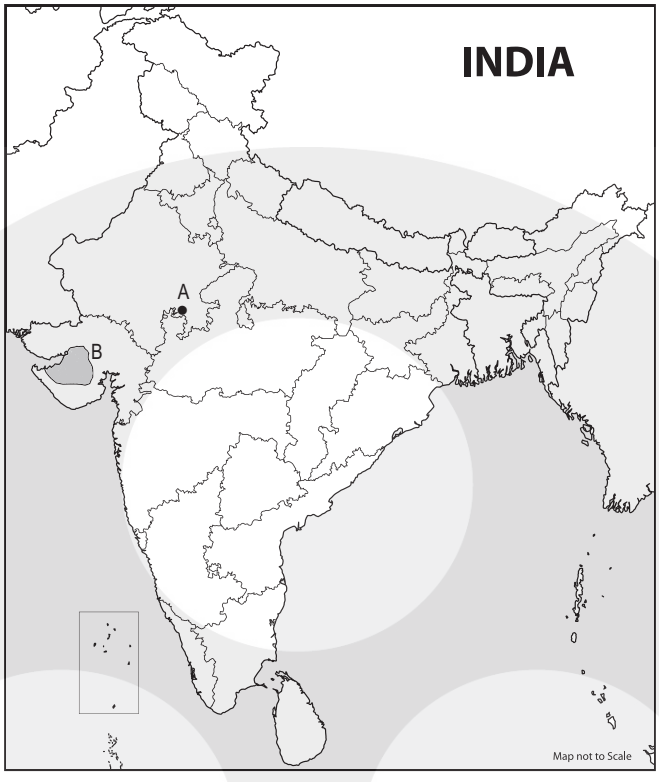
58. Our future is linked together. Why it is said so? Choose the correct option in reference to the context.

A. Consequences of environmental degradation do not respect national or state boundaries.
B. Sustainability of development is comparatively a new area of knowledge.
C. The question of development or progress is perennial.
D. The debate on development continues.

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.



59. On the political map of India, 'A' is marked as a dam. Identify it from the following options.

A. Tehri Dam
B. Sardar Sarovar Dam
C. Bhakra Nangal Dam
D. Rana Pratap Sagar Dam

60. On the same map, 'B' is also marked as a type of soil. Identify it from the following options.

A. Black soil
B. Alluvial soil
C. Arid soil
D. Laterite soil

❑❑

Sample Paper 2

Social Science

Section - A

(Attempt any 20 out of 24 questions)

1. Which incident shows that the army (conservatives) can be the architect of a nation?

A. 1848 July revolution
B. Frankfurt Parliament
C. Unification of Germany
D. Battle of Waterloo

2. The Civil Code of 1804 is usually known as :

A. Code of Conduct
B. Napoleonic Code
C. Das volk
D. Treaty of Versailles

3. Identify who celebrated the national struggle through his operas and music, turning folk dances like the polonaise and mazurka into nationalist symbols?

A. Karol Kurpinski
B. Johann Gottfried Herder
C. Louise Philippe
D. Metternich

4. The term *das volk* means :

A. Common people
B. German philosopher
C. Folk dance
D. Folk poetry

5. The Estates General was elected by the body of active citizens and renamed the :

A. Parliament
B. Constitution
C. Empire
D. National Assembly

6. Choose the correctly matched pair of other names of slash and burn agriculture and their concerned places.

A. Roca - Andhra Pradesh
B. Milpa - Mexico
C. Podu - Jharkhand
D. Kuruwa - Brazil

7. _____ is the main reason of land degradation in Punjab.

A. Intensive cultivation
B. Over irrigation
C. Deforestation
D. Overgrazing

8. Which one among the following soil types is the result of intense leaching due to heavy rainfall?

A. Black soil
B. Alluvial soil
C. Laterite soil
D. Red soil

9. Aus, Aman and Boro are the types of :

A. Paddy
B. Wheat
C. Coffee
D. Tur

10. The Club of Rome advocated resource conservation in the year :

A. 1965
B. 1966
C. 1967
D. 1968

11. Which religion is followed by Sinhala speaking people ?

A. Hindus
B. Buddhists
C. Muslims
D. None of the above

12. Which is the capital city of Belgium ?

A. Brussels B. Bonn C. Wallonia D. Paris

13. Which language is spoken by the majority of Belgians ?

A. German B. Dutch C. French D. English

14. What do you call the act of taking power from state and central government and giving it to local government ?

A. Federal government B. Democracy

C. Decentralisation D. None of the above

15. When was the use of English for official purposes stopped ?

A. 1956 B. 1958 C. 1960 D. 1965

16. Which groups reduces the possibility of conflict?

A. Media groups B. Public portal groups

C. Social groups D. None of these

17. Arrange the following in the correct sequence:

(i) The Parliament cannot on its own change this arrangement.

(ii) Then it has to be ratified by the legislatures of at least half of the total States.

(iii) Any change to it has to be first passed by both the Houses of the Parliament with at least two-thirds majority.

(iv) It is not easy to make changes to the power sharing arrangement.

A. iv-i-iii-ii B. i-ii-iii-iv C. iv-iii-ii-i D. ii-iii-iv-i

18. Which of the following report is published by the UNDP to compare the countries' education, health and per capita income level standards ?

A. Urban Development Report.

B. Living Index Development Report.

C. Human Development Report.

D. Resource Development Report.

19. Which of the following questions needs to be answered when thinking of national development?

A. Would a development plan benefit people from suburbs ?

B. Would a development plan include construction of new buildings ?

C. Would a development plan benefit a large or a small number of people ?

D. Would a development plan lead to increased international trade ?

20. Which of the following sectors is the largest producing sector in India ?

A. Primary sector B. Modern sector C. Tertiary sector D. Secondary sector

21. The goods that are derived by exploiting natural resources are referred to as the goods of:

A. Primary sector B. Modern sector

C. Secondary sector D. Tertiary sector

22. Kerala has a low infant mortality rate because:

A. It has good infrastructure

B. It has adequate provision of basic health and educational facilities.

C. All the girls are trained at the primary level schooling to look after a newborn child.

D. Most of the girls are nurses in Kerala.

23. In World Development Reports, brought out by the World Bank, which criterion is used in classifying countries?

A. Total income
B. Gross income
C. Per capita income
D. Net income

24. Which of the following neighbouring countries has better performance in terms of human development than India?

A. Bangladesh
B. Sri Lanka
C. Nepal
D. Pakistan

Section - B

(Attempt any 18 out of 22 questions)

25.

Which of the following aspect best signifies the above image of 'a street address in Belgium' ?

A. Constitution prescribes that the number of Dutch and French-speaking ministers shall be equal in the central government.
B. The state governments are not subordinate to the central government.
C. The Belgian model is very complicated, even for people living in Belgium.
D. Brussels has a separate government in which both the communities have equal representation.

26. Which of the following option(s) is/are correct about the revolt of the Silesian weavers?

I. The cause of the Silesian weavers uprising was the contractors cheating on the weavers.
II. The contractors who supplied the weavers raw materials and gave order for finished materials reduced the payments of the weavers.

Options:

A. Only I
B. Only II
C. I & II
D. None of the above

27. Who helped Garibaldi in southern Italy to drive the Spanish rulers out?

A. Victor Emmanuel II
B. Peasants
C. Rich Merchants
D. Young soldiers of Spanish army

28. Identify the correct statement with regard to the Treaty of Vienna from the following options:

A. The right to vote and to get elected was granted to property owning person.
B. The European powers drew up a settlement for Europe.
C. A landed aristocracy became the dominant class.
D. France lost the territories it had annexed under Nepoleon.

29. Identify the cropping season with the help of clues given below-

- Sown with the onset of monsoon.
- Harvested in September- October.
- Major crops – paddy, maize, groundnut, etc.

A. Kharif
B. Rabi
C. Zaid
D. None of the above

30. What are renewable resources?

A. They are obtained from biosphere and have life.
B. They are composed of non-living things.
C. They can be renewed or reproduced by physical, chemical or mechanical processes.
D. They have life such as human beings, flora and fauna, fisheries, livestock.

31. Consider the following statements regarding classification of resources on the basis of ownership and write the answer using the codes given below:

I. Resources can be owned by Individuals
II. Resources can be owned by Community
III. Resources can be owned by tribal people
IV. Resources can be owned by internationally

Options:

A. I, II & III
B. II, III & IV
C. I, III & IV
D. I, II & IV

32. Under which of the following type of resource can tidal energy be put?

A. Replenishable
B. Human-made
C. Abiotic
D. Non-renewable

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): From the very beginning, the French revolutionaries introduced various measures and practices like the idea of *la patrie* and *le citoyen.*

Reason (R): This was done to create a sense of collective identity amongst the French people.

Options :

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

34. Match the following items given in Column A with those in Column B.

Column A	Column B
(a) Red & Yellow soil	(1) Himalayan region
(b) Arid soil	(2) Western Ghats
(c) Laterite soil	(3) Chhattisgarh
(d) Forest soil	(4) Western Rajasthan

A. a - 2, b - 4, c - 3, d - 1
B. a - 3, b - 1, c - 2, d - 4
C. a - 2, b - 3, c - 4, d - 1
D. a - 3, b - 4, c - 2, d - 1

35. It is practised in areas of high population pressure on land. It is labour-intensive farming, where high doses of biochemical inputs and irrigation are used for obtaining higher production. Identify the type of farming by selecting the appropriate option.

A. Commercial farming
B. Intensive subsistence farming
C. Plantation farming
D. Primitive subsistence farming

36. Identify the type of the soil with the help of the following information:

- generally contain more nutrients, moisture, and humus
- have better drainage and infiltration of water and
- are easier to till

A. Loam soil
B. Alluvial soil
C. Black soil
D. None of these

37. Read the following statements and find the INCORRECT from the given options:

I. European governments were not driven by a spirit of conservatism.
II. Conservatives believed that established traditional institutions of state and society should be preserved.
III. Most conservatives realised from the changes initiated by Napoleon, that modernization could in fact strengthen traditional institutions like the monarchy.

Options:

A. I & II
B. II & III
C. III Only
D. I Only

38. Identify the correct statement/s regarding the consequences of the Revolution of 1848.

I. Britain was the main centre of the Revolution of 1848 and it restored the monarchy.
II. In Europe, it marked the end of the rule of Metternich and secured the system which had prevailed since 1815.

Options:

A. Only I
B. Only II
C. I & II
D. None of the above

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A) : Terrace cultivation does not restrict erosion.

Reason (R): The running water cuts through the clayey soils and makes deep channels as gullies. This makes the land unfit for cultivation.

Options :

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

40. Choose the correct option from the following:

List –I (Attributes)	List - II (Significance)
A. Broken Chain	Beginning of new Era
B. Sword	Being freed
C. Olive branch around the sword	Willingness to make peace
D. Rays of rising sun	Readiness to fight

41. Read the following data and information carefully and select the most appropriate answer from the given options:

Place of work	Nature of employment	% of working people
In offices and factories registered with the government	Organised	15
Own shops, office, clinics in marketplaces with formal license	Organised	15
People working on the street, construction workers, domestic workers	Unorganised	20
Working in small workshops usually not registered with the government	Unorganised	50

Sia was working in a shop as a helper. She was paid only the days when she is present on the shop. She was not paid even for Sundays. She has to work for 12 hour to get one day salary. She wants to take up a job in office which belongs to Organised sector.

Find the percentage of workers like Sia who are working in the unorganised sector in this city?

A. 20% B. 35% C. 40% D. 70%

42. What was the occupation of Giuseppe Garibaldi before he was a revolutionary?

A. Sailor in merchant navy B. A soldier
C. A potter D. A rich bureaucrat

43. A student read that the Sinhala community of Sri Lanka dominated Tamil people. The State also protected and promoted Buddhism. Find out the type of Power-sharing that this student saw?

A. Accommodation B. Horizontal
C. Vertical D. Majoritarianism

44. According to 2019-20 data, people working in an unorganised sector are as follows:

- Primary Sector – 68%
- Secondary – 22%
- Tertiary – 10%

Out of the three sectors, why people from primary sector work in unorganised sector? Select the most suitable option from the following:

A. Primary sector is not registered B. Low job opportunities in other sectors
C. Less labour is required in other sectors D. Unemployment rate is very high

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Power should reside with one person and group located at one place in a democracy.

Reason (B): If the power is dispersed, it will not be possible to take decisions quickly and enforce it.

Options :

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

46. Anita realizes that Judiciary is asking government to do many things, even though no such case was put up in the court. This is an example of which type of checking of government by Judiciary?

A. Different organs of government B. Government of different level
C. Among different social groups D. Among different political parties

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Power is shared among different organs of government, such as the legislature, executive and judiciary. Let us call this horizontal distribution of power because it allows different organs of government placed at the same level to exercise different powers. Such a separation ensures that none of the organs can exercise unlimited power. Each organ checks the others. This results in a balance of power among various institutions. Last year, we studied that in a democracy, even though ministers and government officials exercise power, they are responsible to the Parliament or State Assemblies. Similarly, although judges are appointed by the executive, they can check the functioning of executive or laws made by the legislatures. This arrangement is called a system of checks and balances.

47. Name Power sharing among different organs of the government.

A. Horizontal distribution of power.
B. Vertical distribution of power.
C. Power sharing among Social groups.
D. None of these

48. Why power sharing in different organs of government system is called checks and balance.

A. Ministers and government officials exercise power but they are responsible to the Parliament or State Assemblies.
B. Judges are appointed by the executive, they can check the functioning of executive or laws made by the legislatures.
C. Both the factors
D. None of these

49. Fill in the blank from the given options

Power is shared among different_____ of government, such as the legislature, executive and judiciary.

A. Parts
B. Organs
C. Sections
D. Levels

50. Find out the incorrect statements from the following options:

I. Horizontal distribution of power does not allow different organs of government placed at the same level to exercise different powers.
II. Such a separation ensures that none of the organs can exercise unlimited power. Each organ checks the others.
III. This results in a balance of power among various institutions.

Options:

A. I & II
B. II & III
C. III only
D. I only

51. What results in a balance of power among various institutions?

A. Horizontal distribution of power
B. Vertical distribution of power.
C. Power sharing among Social groups.
D. None of these

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Horizontal distribution of power because it allows different organs of government placed at the same level to exercise different powers.

Reason (R): Such a separation ensures that none of the organs can exercise unlimited power.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Read the source given below and answer the questions that follow by choosing the most appropriate option:

What people desire are regular work, better wages, and decent price for their crops or other products that they produce. In other words, they want more income. Besides seeking more income, one way or the other, people also seek things like equal treatment, freedom, security, and respect of others. They resent discrimination. All these are important goals. In fact, in some cases, these may be more important than more income or more consumption because material goods are not all that you need to live. Money, or material things that one can buy with it, is one factor on which our life depends. But the quality of our life also depends on non-material things mentioned above. If it is not obvious to you, then just think of the role of your friends in your life. You may desire their friendship. Similarly, there are many things that are not easily measured but they mean a lot to our lives. These are often ignored. However, it will be wrong to conclude that what cannot be measured is not important.

53. What do people resent?

A. Regular work
B. Equal treatment
C. Security
D. Discrimination

54. Read the following statements and find the INCORRECT from the given options:

I. People want regular work and more income.

II. Besides seeking more income, people also seek equal treatment.

III. The quality of our life depends on material things only.

Options:

A. I & II
B. II & III
C. II only
D. III only

56. There are many things that are not easily measured but they mean a lot to our lives like:

A. Regular work
B. Better wages
C. Decent price for the crops
D. Friends

55. According to the information given above: there are many things that are not easily measured but they mean a lot to our lives. These are often ignored. Select the best suitable option from the following in reference to the context.

A. Regular work
B. Friendship
C. Better wages
D. Decent price for crops

57. What are important goals of people? With reference to the above context, infer the appropriate option.

A. To earn material things
B. To get non-material things
C. Both A and B
D. Either A or B

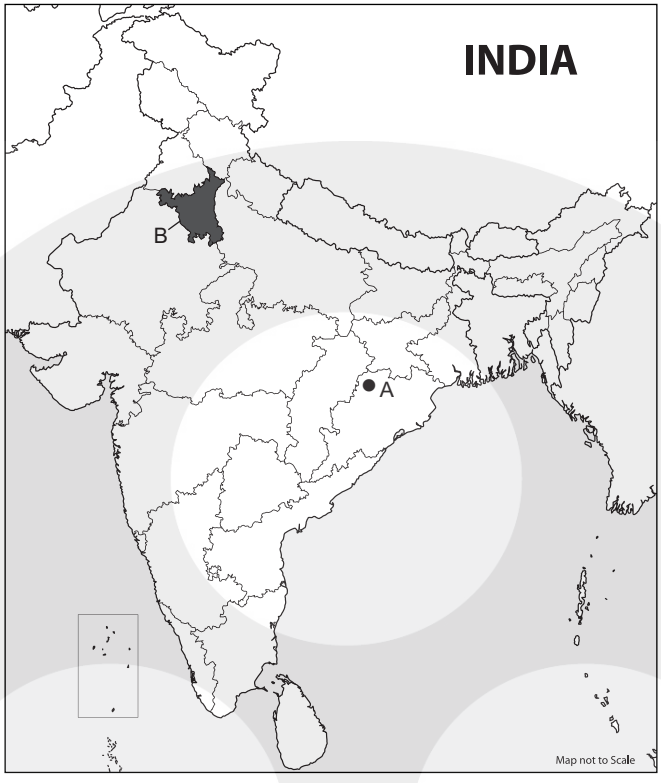
58. Our quality of work depends on non-material things also. Identify the best suitable option depicting the same from the following:

A. Friends
B. Respect
C. Equal treatment
D. All of these

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.



59. On the political map of India, 'A' is marked as a dam. Identify it from the following options.

A. Bhakra Nangal Dam
B. Hirakud Dam
C. Tungabhadra Dam
D. Koyna Dam

60. On the same map, 'B' is also marked as a major wheat producing state. Identify it from the following option.

A. Punjab
B. Uttar Pradesh
C. Rajasthan
D. Haryana

❑❑

Sample Paper 3

Social Science

Section - A

(Attempt any 20 out of 24 questions)

1. He was the Chief Minister and the chief architect of the movement for National Unification of Prussia :

A. Kaiser William I
B. Otto von Bismarck
C. Hitler
D. Giuseppe Mazzini

2. Who suppressed the liberal initiative of nation-building?

A. Military of monarch of Prussia and Junkers
B. Louis Philippe
C. Louis XV
D. Victor Emmanuel

3. Identity which among the following best signifies the idea of liberal nationalism of nineteenth century Europe?

A. Emphasis on social justice
B. State planned socio-economic system
C. Freedom for individual and equality before law
D. Supremacy of State oriented nationalism.

4. He had sought to put together a coherent programme for a Unitary Italian Republic:

A. King Victor Emmanuel II
B. Kaiser William I
C. Giuseppe Mazzini
D. Chief Minister Cavour

5. The broken chains signify:

A. beginning of a new era
B. readiness to fight
C. heroism
D. being freed

6. Choose the correct pair of cultivation and the term associated with it.

A. Sericulture - Production of silk
B. Plantation - Production of vegetables
C. Pisciculture - Production of milk
D. Monoculture - Production of flowers

7. _____is the method of checking soil erosion.

A. Strip cropping
B. Terrace farming
C. Contour ploughing
D. All of these

8. In which of the following states terrace cultivation is practiced?

A. Punjab
B. Haryana
C. Uttarakhand
D. Jharkhand

9. Pea is a :

A. Kharif crop
B. Rabi crop
C. Zaid crop
D. None of these

10. Which of the following is true for a renewable resource ?
A. Renewable resources can never be overused as they are in abundance.
B. Renewable resources are replenished by the nature over a period of time.
C. Renewable resources are fixed, and they are bound to get exhausted.
D. Renewable resources are available only in developed nations.

11. Which religion is followed by Sinhala speaking people ?
A. Hindus
B. Buddhists
C. Muslims
D. None of the above

12. In which part of Sri Lanka are the Sri Lankan Tamils concentrated ?
A. North and South
B. East and West
C. North and East
D. South and East

13. In which Schedule of the Indian Constitution are the 22 Scheduled Languages included ?
A. Eighth Schedule
B. Tenth Schedule
C. Twelfth Schedule
D. Ninth Schedule

14. Which subjects are included in the Concurrent List ?
A. National importance
B. State importance
C. Both national and state importance
D. Importance of local government

15. Which of the following is true regarding language policy of India ?
A. Hindi is the national language.
B. English is the official language.
C. No language is given the status of national language.
D. English is the national language.

16. Which of the following was not one of the initial demand of Sri Lankan Tamils ?
A. Regional autonomy.
B. Recognition of Tamil as an official language.
C. Equal opportunities in securing jobs and education.
D. Creation of an independent Tamil Eelam (state).

17. What was the main reason of conflict in Belgium?
A. State was protecting and fostering Buddhism
B. Dutch were in minority in capital city
C. Due to economic disparity
D. Dutch community was in majority in the whole country.

18. Which of the following is another name for primary sector ?
A. Service sector
B. Agriculture and related sector
C. IT Sector
D. Industrial sector

19. Which of the following refers to the intermediary goods ?
A. Goods that are included in the estimation of GDP.
B. Goods that are not used as raw material for production of other goods during a year.
C. Goods that are used as raw material for the production of other goods during a year.
D. Goods that are not resold by the firms to make profit during a year.

20. Which of the following is true about development ?
A. The notion of development is different for people from different sections of society.
B. The notion of development can never be conflicting for people from different sections of society.

C. The notion of development always go hand in hand for industrialists and tribal people.
D. The notion of development is only associated to higher income.

21. Choose a method to tackle the problem of underemployment in a country.
A. Identify, promote and locate industries and services where a large number of people can be employed.
B. Provide debt-waiver schemes for farmers so, that they can easily take loans to increase agricultural activities.
C. The government should provide unemployment benefits to citizens.
D. The government should focus on developing jobs in the unorganised sector as most of the people are employed in unorganised sector.

22. Which of the following is a benefit of a tertiary sector ?
A. The activities of tertiary sector help in the development of primary and secondary sector.
B. The tertiary sector helps in the production of goods by directly using natural resources.
C. The individuals involved in tertiary sector use better quality seeds and manure to produce agricultural goods.
D. The individuals involved in tertiary sector buys raw materials directly from farmers to convert them into final goods.

23. Consider the following statements regarding comparing different countries or states and select the answer using the codes given below:
I. For comparing countries their income is considered to be one of the most important attribute.
II. The income of the country, is the income of all rich residents of the country.
III. For comparison between countries, income is not a very useful measure.
IV. The average income is also called per capita income.

Options:
A. I, II & III
B. II, III & IV
C. I, III & IV
D. I, II & IV

24. Over the past decade or so, _____indicators have come to be widely used along with income as a measure of development?
A. Health and nutrition
B. Health and education
C. Child development
D. Human development

Section - B

(Attempt any 18 out of 22 questions)

25. Which one of the following option best signifies this picture ?

A. Private development system
B. Public department system
C. Pure domestic system
D. Public distribution system

26. Which of the following option(s) is/are correct about allegory of the nation?

I. During 1789, paintings of female figures appeared as symbols of liberty.
II. Germania was depicted by Kaiser William I.
III. Female figure in France was named as Marianne.
IV. The idea behind Marianne was to represent the French nation as people's nation.

Options:

A. I & II
B. II & III
C. I, III & IV
D. Only II

27. Who had prepared the painting of the proclamation of the German empire in the Hall of Mirrors at Versailles?

A. Frederic Sorrieu
B. Philip Veit
C. Delacroix
D. Anton von Werner

28. Identify the person whom was described as the most dangerous enemy of our social order by Duke Metternich.

A. Giuseppe Mazzini
B. Otto von Bismarck
C. Giuseppe Garibaldi
D. Lord Byron

29. Identify the soil with the help of clues given below:

- Ranges from red to brown in colour.
- Is low in humus content.
- Found in western part of the country.

A. Alluvial soil
B. Laterite soil
C. Arid soil
D. Red and Yellow soil

30. Which one of the following best signifies the idea of liberal nationalism of nineteenth century Europe?

A. Freedom for individual and equality before law
B. Supremacy of state oriented nationalism
C. Emphasis on social justice
D. State planned socio-economic system

31. Consider the following statements regarding tertiary sectors and select the answer using the codes given below:

I. It aid and support the production.
II. Communication is also included in tertiary sector.
III. In this sector natural products are changed to other form.
IV. As it generates services it is known as service sector.

Options:

A. I, II & III
B. II, III & IV
C. I, III & IV
D. I, II & IV

32. What was the main feature of the pattern of land holding prevailing in the Eastern and Central Europe?

A. Small landowners
B. Tenants
C. Landlords
D Vast Estates

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Germany, Italy and Switzerland were divided into kingdoms, duchies and cantons whose rulers had their autonomous territories.

Reason (R): They were closely bound to each other inspite of their autonomous rule.

Options :

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

34. Match the following items given in column 'A' with those in column 'B':

Column A	Column B
(a) Giuseppe Mazzini	(1) Frankfurt Parliament
(b) Duck Metternich	(2) Unification of Germany
(c) Otto Von Bismarck	(3) Young Italy
(d) Carl Welcker	(4) Congress of Vienna

A. a - 4, b - 3, c - 2, d - 1

B. a - 3, b - 4, c - 1, d - 2

C. a - 2, b - 4, c - 1, d - 3

D. a - 2, b - 1, c - 4, d - 3

35. Shagun wants to contest election in Gram Sabha. How many seats are reserved for woman in Panchayati Raj bodies, that makes her chance of winning the seat?

A. One-fourth

B. One-sixth

C. One-third

D. Half

36. Identify the three-fold distribution of legislative powers between Union Government and State Governments with the help of following information.

- It includes subjects of common interests to both levels of governments.
- If their laws conflict with each other, the law made by the union Government will prevail.

Select the appropriate option from the following:

A. Union List

B. Concurrent List

C State List

D. None of the above

37. Consider the following statements regarding sustainable development and select the answer using the codes given below:

I. It is defined as development that meets the needs of the present without compromising the ability of future generations.

II. A number of scientists have been warning that the present type and levels of development are not sustainable.

III. Consequences of environmental degradation respect national or state boundaries.

IV. It is a new area of knowledge in which scientists, economists, philosophers and other social scientists are working together.

Options:

A. I, II & III

B. II, III & IV

C. I, III & IV

D. I, II & IV

38. Identify the correct statement/s regarding Federalism in India.

I. Constitution declared India as a union of States

II. The constitution provides three tier system of government.

III. The third tier of federalism was added in the form of panchayats and municipalities.

IV. Union list, state list and concurrent list does not make India a federal country.

Options:

A. I, II & III
B. II, III & IV
C. I, III & IV
D. I, II & IV

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Organic farming is much in vogue.

Reason (R): In organic farming, crops are grown using high doses of chemicals to increase production.

Options :

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

40. Choose the correct option from the following:

List- I (Sector)	List-II (Example)
A. Primary	Yarn
B. Secondary	Transportation
C. Tertiary	Fishing
D. Primary	Forestry

41. Read the following data and information carefully and select the most appropriate answer from the given options:

The following table gives the GDP in Rupees (Crores) by the three sectors:

Year	Primary	Secondary	Tertiary
2000	52,000	48,500	1,33,500
2013	800,500	10,74,000	38,68,000

Reeta was comparing contribution of all three sectors in Rupees for her Maths class. Calculate the ratio of the Tertiary and Primary sectors in GDP 2013.

A. 1: 6
B. 2:5
C. 1:4
D. 2:7

42. Assume there are four families in a country. The average per capita income of these families is ₹ 5000. If the income of three families is ₹ 4000, ₹ 7000 and ₹ 3000 respectively, what is the income of the fourth family?

A. ₹ 7500
B. ₹ 3000
C. ₹ 2000
D. ₹ 6000

43. A person is willing to work at prevailing wages that is given by government. But he could not find work. Find out what he should do?

A. Wait till he gets work
B. Ask for allowance under MGNREGA
C. Take loan from bank
D. Take loan from his relatives/friends.

44. According to 2012-13 data, Per capita income of few states is as follows:

- Maharashtra - Rs. 1,07,670
- Kerala - Rs. 88,527
- Bihar - Rs. 28,774

Out of three states why Maharashtra will have better living condition as compared to other states. Select the most suitable option from the following:

A. Due to better PDS

B. Due to high literacy rate

C. Money can buy things that will make life comfortable

D. Material and non-material things can be bought from money.

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Belgium and Sri Lanka both faced ethical tension among different communities.

Reason (R): Both the countries resolved the conflict by power sharing arrangement which gave equal representation to all the communities.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

46. Mr. X lives in a country where the government or system of rule has no restraints on the power exercised. Of which type of government is this an example?

A. Utopian

B. Absolutist

C. Democratic

D. Monarchical

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions that follow by choosing the most appropriate option:

The idea of power-sharing has emerged in opposition to the notions of undivided political power. For a long time it was believed that all power of a government must reside in one person or group of persons located at one place. It was felt that if the power to decide is dispersed, it would not be possible to take quick decisions and to enforce them. But these notions have changed with the emergence of democracy. One basic principle of democracy is that people are the source of all political power. In a democracy, people rule themselves through institutions of self-government. In a good democratic government, due respect is given to diverse groups and views that exist in a society. Everyone has a voice in the shaping of public policies. Therefore, it follows that in a democracy political power should be distributed among as many citizens as possible.

47. How the idea of power-sharing has emerged?

A. In opposition to the notions of undivided political power.

B. All power of a government must reside in one person

C. All power of a government must reside in group of persons.

D. None of these

48. Why democracy is considered a good government?

A. People are the source of all political power.

B. People rule themselves through institutions of self-government.

C. Everyone has a voice in the shaping of public policies.

D. All of these

49. Fill in the blank from the given options:

In a democracy, people rule themselves through institutions of ____

A. Political Party

B. Pressure group

C. Self-government

D. Government

50. Identify the incorrect statements from the given options:

I. The idea of power-sharing has emerged in support of the notions of undivided political power.

II. For a long time it was believed that all power of a government must reside in one person or group of persons located at one place.

III. It was felt that if the power to decide is dispersed, it would not be possible to take quick decisions and to enforce them.

Options:

A. I & II

B. II & III

C. I only

D. III only

51. Which power in a democracy should be distributed among as many citizens as possible?

A. Political

B. Social

C. Legislative

D. Executive

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): In a democracy, people rule themselves through institutions of self-government.

Reason (R): In a good democratic government, due respect is given to diverse groups and views that exist in a society.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Read the source given below and answer the questions that follow by choosing the most appropriate option:

You have studied the physical diversities and plurality of cultures in India. These are also reflected in agricultural practices and cropping patterns in the country. Various types of food and fibre crops, vegetables and fruits, spices and condiments, etc. constitute some of the important crops grown in the country. India has three cropping seasons — rabi, kharif and zaid.

Rabi crops are sown in winter from October to December and harvested in summer from April to June. Some of the important rabi crops are wheat, barley, peas, gram and mustard. Though, these crops are grown in large parts of India, states from the north and north- western parts such as Punjab, Haryana, Himachal Pradesh, Jammu and Kashmir, Uttaranchal and Uttar Pradesh are

important for the production of wheat and other rabi crops. Availability of precipitation during winter months due to the western temperate cyclones helps in the success of these crops. However, the success of the green revolution in Punjab, Haryana, western Uttar Pradesh and parts of Rajasthan has also been an important factor in the growth of the above- mentioned rabi crops.

Kharif crops are grown with the onset of monsoon in different parts of the country and these are harvested in September-October. Important crops grown during this season are paddy, maize, jowar, bajra, tur(arhar), moong, urad, cotton, jute, groundnut and soyabean. Some of the most important rice-growing regions are Assam, West Bengal, coastal regions of Orissa, Andhra Pradesh, Tamil Nadu, Kerala and Maharashtra, particularly the (Konkan coast) along with Uttar Pradesh and Bihar. Recently, paddy has also become an important crop of Punjab and Haryana. In states like Assam, West Bengal and Orissa, three crops of paddy are grown in a year. These are Aus, Aman and Boro.

In between the rabi and the Kharif seasons, there is a short season during the summer months known as the Zaid season. Some of the crops produced during 'zaid' are watermelon, muskmelon, cucumber, vegetables and fodder crops. Sugarcane takes almost a year to grow.

53. Which crops are produced in Zaid season?

A. Muskmelon
B. Cucumber
C. Fodder Crops
D. All of these.

54. Read the following statements and find the INCORRECT from the given options:

I. In between the rabi and the kharif seasons, there is a long season during the summer months known as the zaid season.

II. Some of the crops produced during 'zaid' are watermelon, muskmelon, cucumber, vegetables and fodder crops.

III. Sugarcane takes six months to grow.

Options:

A. I & III only
B. II & III only
C. III only
D. I only

55. According to the information given above, how the physical diversities and plurality of cultures in India is reflected?

A. Various types of food and fibre crops, vegetables and fruits, spices and condiments, etc. constitute some of the important crops grown in the country.

B. India has three cropping seasons — rabi, kharif and zaid.

C. In agricultural practices and cropping patterns in the country.

D. By all of these.

56. Which crop has become important recently?

A. Soyabean
B. Maize
C. Wheat
D. Paddy

57. In which of the following months are Rabi crops sown?

A. September to November
B. October to November
C. September to December
D. October to December

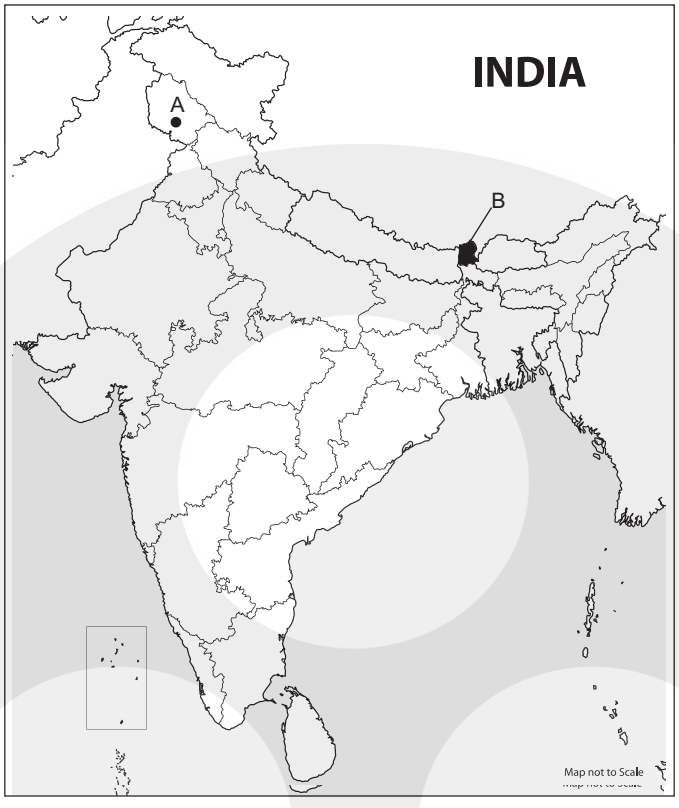
58. Availability of precipitation during winter months due to the western temperate cyclones helps in the success of these crops. Identify this winter rain from the following options:

A. Kalbaisakhi
B. Mahawat
C. Mango showers
D. Norwesters

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.



59. On the political map of India, 'A' is marked as a dam. Identify it from the following options:

A. Periyar Dam
B. Tehri Dam
C. Bhakra Nangal Dam
D. Salal Dam

60. On the same map 'B' is marked as a type of soil. Identify it from the following options:

A. Arid soil
B. Alluvial soil
C. Forest soil
D. Red soil

❑❑

Sample Paper 4

Social Science

Section - A

(Attempt any 20 out of 24 questions)

1. Who celebrated the national struggle through his operas and music, turning folk dances like the polonaise and mazurka into nationalist symbols?

A. Karol Kurpinski
B. Johann Gottfried Herder
C. Louise Philippe
D. Metternich

2. What was seen as a symbol of the struggle against Russian dominance?

A. Use of Romanticism
B. Use of culture
C. Use of Polish language
D. Use of Prussian language

3. Identify why was Ireland forcibly incorporated into the United Kingdom in 1801?

A. Wolfe Tone and his United Irishmen (1798) failed against the Protestants who were supported by the English to establish their dominance over a largely Catholic country
B. The Protestants lost against Wolfe Tone and his United Irishmen who were supported by the English and the Catholics
C. They lost the Greek war of independence
D. They lost in the French Revolution and was forced to concede into the United Kingdom

4. Unification of Germany took place between :

A. 1814–1815
B. 1821–1848
C. 1866–1871
D. 1797–1905

5. Who among the following leaders formed a secret society called 'Young Italy' ?

A. Victor Emmanuel II
B. Giuseppe Mazzini
C. Count Cavour
D. Giuseppe Garibaldi

6. Choose the correctly matched pairs about months and cropping season

A. October to December - Zaid
B.Onset of monsoon - Kharif
C. Onset of winters - Rabi
D. April to May - Summer

7. Rabi is the cropping season and the Rabi crops are harvested in _____

A. Monsoon
B. Winter
C. Summer
D. Autumn

8. Which one among the following is the method to control degradation?

A. Deforestation
B. Intensive cultivation
C. Overgrazing
D. Afforestation

9. Which one of the following crops is an example of Rabi cropping season ?

A. Watermelon
B. Cucumber
C. Maize
D. Barley

10. Which one of the following is the main reason for degradation in Punjab?

A. Intensive cultivation
B. Over irrigation
C. Deforestation
D. Overgrazing

11. When was the use of English for official purposes stopped?

A. 1956 B. 1958 C. 1960 D. 1965

12. Modern democracies maintain check and balance system. Identify the correct option based on the horizontal power sharing arrangement.

A. Central government, state government, local bodies.

B. Legislature, executive, judiciary.

C. Among different social groups.

D. Among different pressure groups.

13. Federation has two levels of government and both of them enjoy _____.

A. power dependent on each other B. power independent of the other.

C. equal power D. authoritative power

14. The Estates General was elected by the body of active citizens and renamed the :

A. Parliament B. Constitution

C. Empire D. National Assembly

15. Why is there a need for third level of government in India?

A. A large number of problems and issues which are best settled at the local level

B. Indian states are large and internally very diverse

C. Both A. and B.

D. None of above

16. Which of the following is true about development?

A. The notion of development is different for people from different sections of society.

B. The notion of development can never be conflicting for people from different sections of society.

C. The notion of development always go hand in hand for industrialists and tribal people.

D. The notion of development is only associated to higher income.

17. Which sector acts as an aid or support to the other sectors in the economy?

A. Primary Sector B. Secondary Sector

C. Tertiary Sector D. Allied sector

18. Which of the following questions needs to be answered when thinking of national development?

A. Would a development plan benefit people from suburbs ?

B. Would a development plan include construction of new buildings ?

C. Would a development plan benefit a large or a small number of people ?

D. Would a development plan lead to increased international trade ?

19. Who hosted the Congress of Vienna in 1815 ?

A. Duke Metternich B. Rainer Ferdinand

C. King Victor Emmanuel D. Cavour

20. While baking a cake, the cocoa powder used by the baker is an example of which type of good?

A. Final good B. Service good

C. Raw good D. Intermediate good

21. Which of the following neighbouring countries has better performance in terms of human development than India?

A. Bangladesh B. Sri Lanka

C. Nepal D. Pakistan

22. He was proclaimed King of United Italy in 1861 :

A. Victor Emmanuel II
B. Giuseppe Mazzini
C. Kaiser William I
D. Otto von Bismarck

23. Which of the following sector does not come under the service sector in India?

A. Transport
B. Electronic television development
C. Real estate
D. Restaurants

24. In UP, most of the industries run on thermal power but in Gujarat, it is mandatory for the industries to run on solar energy. Which of the following best defines sustainable Development? Choose the correct option:

A. Sustainable development refers to the promotion of international trade so that the world does not have to face scarcity of resources because of geographical constraints.
B. Sustainable development refers to ensuring Pareto efficiency in the countries so that resources are optimally allocated, and it is not possible to reallocate resources to make some one better off without making someone else worse off.
C. Sustainable development refers to the development that meet the needs of the present generation without compromising the ability of the future generations to meet their own needs.
D. Sustainable development refers to ensuring that no individual, firm or country can become a free rider, i.e., no one can benefit from resources without paying for them.

Section - B

(Attempt any 18 out of 22 questions)

25.

What does the image given above depict?

A. A poster hung on wall
B. Postage stamp with picture of Marianne
C. Picture of Germania, Philip Veit
D. Caricature of Otto van Bismarck

26. Which of the following is correct about people and their idea about world.

A. Frederick Sorrieu - Democratic and social Republic
B. Ernst Renan - Culture can be found in common people
C. Napoleon - A common past and present
D. Johann Gottfried - Democratic countries

27. Why did the weavers in Silesia revolt against contractors in 1845? Identify the appropriate reason from the following options.

A. Contractors did not pay their dues
B. Contractors appointed few on high posts
C. Contactors used government policies
D. Contractors gave them loans on high interests

28. To which country the leader of unification Otto von Bismarck belongs?

A. Britain B. France C. Spain D. Germany

29. Identify the crop with the help of the following features:

- Staple food crop of India
- Above 100 cm rainfall is required
- It is a Kharif Crop

A. Rice B. Wheat C. Maize D. Pulse

30. What kind of resource is Pastureland?

A. Individual resource B. Community resource

C. International resource D. None of these

31. Consider the following statements on Why is power sharing desirable and select the answer using the codes given below:

I. Power sharing is good because it helps to reduce the possibility of conflict between social groups.

II. Power sharing is not very spirit of democracy.

III. A democratic rule involves sharing power with those affected by its exercise, and who have to live with it effects.

IV. Prudential reasons stress that power sharing will bring out better outcomes, moral reasons emphasizes the very act of the power sharing as valuable.

Options:

A. I,II& III B. II,III& IV C. I,III&IV D. I,II&IV

32. Which of the following statements about Belgium are correct?

I. 59% in the Flemish region speaks Dutch.

II. Another 40% people live in Wallonia region and speaks French.

III. Remaining 1% of the Belgians speak Germany.

IV. In the capital city Brussels, 60% people speak French while 40% are Dutch – speaking.

Options:

A. I,II& III B. II,III& IV C. I,III&IV D. I,II&IV

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): In a democracy, everyone has voice in the shaping of public policies.

Reason (R): India has federal system.

Options :

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

34. Match the following items given in column A with those in column B.

Column A	Column B
(i) Dalits	A. Competition among various political parties
(ii) Christians	B. Heterogeneous population
(iii) Multi-cultural	C. Catholics and Protestants
(iv) Democracy	D. Discriminated section of the Indian society

35. Ridhi was reading in her text book about Greece War for independence. Nationalist in Greece got support from many Western Europeans who had sympathies for ancient Greek culture. Finally Greece was recognized as an independent nation through Treaty of Constantinople. In which year this treaty was signed?

A. 1832 B. 1833 C. 1834 D. 1835

36. Identify the type of the crop based on the information given below:

- It requires a cool growing season and bright sunshine at the time of ripening.
- There are two important wheat growing zones in the country.
- It is a Rabi crop.

A. Wheat B. Maze C. Cotton D. Rice

37. Consider the following statements on the term ' Resource' and write the answer using the codes given below:

I. It is technological acceptable.

II. It is economically feasible.

III. It is culturally acceptable.

IV. It is present in large quantity.

Options:

A. I, II & III B. II, III ,& IV C. I, III & IV D. I, II & IV

38. Identify the correct statements regarding classification of resources on the basis of ownership:

I. Resources can be owned by Individuals

II. Resources can be owned by Community

III. Resources can be owned by tribal people.

IV. Resources can be owned internationally.

Options:

A. I, II & III B. II, III ,& IV C. I, III & IV D. I, II & IV

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Britain, France and Germany fought as a team.

Reason (R): Russia, Prussia and Austria were great powers.

Options :

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

40. Choose the correct option for the following:

List-I (Agricultural reforms)	List-II (Type of reforms)
A. Collectivization	Institutional reforms
B. Grameen Bank	Institutional reforms
C. Crop insurance	Institutional reforms
D. Radio, TV programs	Institutional reforms

41. Read the following data and information carefully and select the most appropriate answer from the given options:

Crude Oil Reserves

Region/Country	Reserves(2013) (Thousand Million Barrels)	No. of Years Reserves will last
Middle East	808.5	78.1
United States of America	44.2	12.1
World	1687.9	53.3

Reena wants to buy a car for herself. When she read the above given table and data given there, she dropped her idea of buying a car that runs on petrol. Now, she is planning to buy electric car. Help her to calculate difference between reserves of USA and Middle East.

A. 1,634.6 B. 879.4 C. 764.3 D. 876.6

42. Mamta realizes that India lies in Low Income countries. So, Per capita Income of India would be less than _____

A. US $955 B. Us $1200 C. US $1205 D US $1800

43. Which is the method of checking soil erosion ?

A. Strip cropping B. Terrace farming

C. Contour ploughing D. All of these

44. He was the Chief Minister and the chief architect of the movement for national unification of Prussia :

A. Kaiser William I B. Otto von Bismarck

C. Hitler D. Giuseppe Mazzini

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): India is an agrarian country.

Reason (R): Majority of the population are into agriculture.

Options :

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

46. Germany was unified by :

A. The military actions B. Revolutionary upsurge

C. Peasants uprising D. Liberals revolution

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Power is shared among different organs of government, such as the legislature, executive and judiciary. Let us call this horizontal distribution of power because it allows different organs of government placed at the same level to exercise different powers. Such a separation ensures that

none of the organs can exercise unlimited power. Each organ checks the others. This results in a balance of power among various institutions. Last year, we studied that in a democracy, even though ministers and government officials exercise power, they are responsible to the Parliament or State Assemblies. Similarly, although judges are appointed by the executive, they can check the functioning of executive or laws made by the legislatures. This arrangement is called a system of checks and balances.

47. Name Power Sharing among different organs of the government.

A. Horizontal distribution of power.
B. Vertical distribution of power.
C. Power sharing among Social groups.
D. None of these

48. Why power sharing in different organs of government system is called checks and balance.

A. Ministers and government officials exercise power but they are responsible to the Parliament or State Assemblies.
B. Judges are appointed by the executive, they can check the functioning of executive or laws made by the legislatures.
C. Both the factors
D. None of these

49. Fill in the blank from the given options

Power is shared among different_____ of government, such as the legislature, executive and judiciary.

A Parts
B. Organs
C. Sections
D. Levels

50. Read the following statements and find the INCORRECT from the given options

I. Horizontal distribution of power does not allows different organs of government placed at the same level to exercise different powers.
II. Such a separation ensures that none of the organs can exercise unlimited power. Each organ checks the others.
III. This results in a balance of power among various institutions.

Options:

A. I & II
B. II & III
C. III Only
D. I Only

51. What results in a balance of power among various institutions?

A. Horizontal distribution of power
B. Vertical distribution of power.
C. Power sharing among Social groups.
D. None of these

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Horizontal distribution of power because it allows different organs of government placed at the same level to exercise different powers.

Reason (R): Such a separation ensures that none of the organs can exercise unlimited power.

Options :

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Consequences of environmental degradation do not respect national or state boundaries; this issue is no longer region or nation specific. Our future is linked together. Sustainability of development is comparatively a new area of knowledge in which scientists, economists, philosophers and other social scientists are working together. In general, the question of development or progress is perennial. At all times as a member of society and as individuals we need to ask where we want to go, what we wish to become and what our goals are. So the debate on development continues.

53. Sustainability of development is considered a new area of knowledge. Which one of the following is the prominent reason?

A. Our future is linked together
B. This subject is perennial
C. It includes other scientists also
D. We do not know our goal.

54. Read the following statements and find the INCORRECT from the given options:

I. In general, the question of development or progress is not perennial.
II. At all times as a member of society and as individuals we should not ask where we want to go, what we wish to become and what our goals are.
III. So the debate on development continues.

Options:

A. I & II
B. II & III
C. III Only
D. II Only

55. According to information given above, at all times as a member of society and as individuals we need to ask where we want to go, what we wish to become and what our goals are. Identify the reason.

A. The question of development or progress is perennial.
B. Consequences of environmental degradation do not respect national or state boundaries
C. Sustainability of development is comparatively a new area of knowledge
D. This issue is no longer region or nation specific.

56. So the debate on development continues. Infer the meaning of debate noticed earlier from the following statements.

A. The question of development or progress is perennial.
B. At all times as a member of society we need to ask where we want to go and what our goals are.
C. As an individual we need to ask what we wish to become and what our goals are.
D. Sustainability of development is comparatively a new area of knowledge.

57. This issue is no longer region or nation specific. Identify the issue which is at prominent level from the following.

A. Sustainable development
B. Environmental degradation
C. Development
D. All of these.

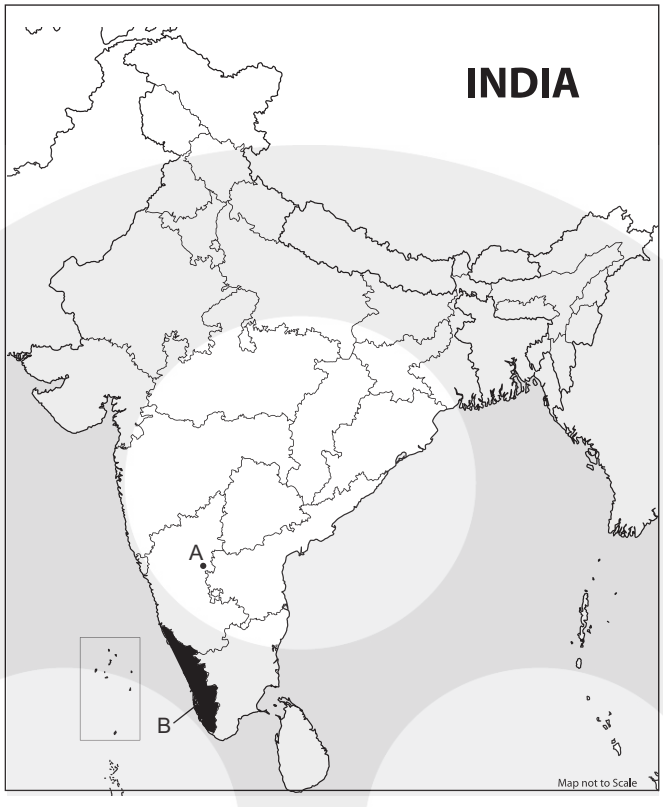
58. Our future is linked together. Why it is said so? Choose the correct option in reference to the context.

A. Consequences of environmental degradation do not respect national or state boundaries.
B. Sustainability of development is comparatively a new area of knowledge.
C. The question of development or progress is perennial.
D. The debate on development continues.

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.



59. On the political map of India, 'A' is marked as a dam. Identify it from the following options.

A. Tungabhadra Dam
B. Koyna Dam
C. Sardar Sarovar Dam
D. Periyar Dam

60. On the same map, 'B' is also marked as a major coffee cultivating state. Identify it from the following options.

A. Karnataka
B. Tamil Nadu
C. Maharashtra
D. Kerala

❑❑

Sample Paper 5

Social Science

Section - A

(Attempt any 20 out of 24 questions)

1. Which among the following best signifies the idea of liberal nationalism of nineteenth century Europe?
A. Emphasis on social justice
B. State planned socio-economic system
C. Freedom for individual and equality before law
D. Supremacy of State oriented nationalism.

2. He had sought to put together a coherent programme for a Unitary Italian Republic:
A. King Victor Emmanuel II
B. Kaiser William I
C. Giuseppe Mazzini
D. Chief Minister Cavour

3. ''When France sneezes, the rest of Europe catches cold''. Identify who among the following said this popular line?
A. Giuseppe Mazzini
B. Matternich
C. Otto von Bismarck
D. Guiseppe Garibaldi

4. Which incident marked the French Revolution?
A. February Revolution
B. April Revolution
C. July Revolution
D. October Revolution

5. Which of the following revolutions is called as the first expression of 'Nationalism' ?
A. French Revolution
B. Russian Revolution
C. Glorious Revolution
D. The Revolution of the liberals

6. Choose the correctly matched pairs about crops and its leading producing states.
A. Mango - Maharashtra
B. Banana - Andhra Pradesh
C. Grapes - Kerala
D. Apple - Mizoram

7. _____ recognised Greece as an independent nation.
A. Treaty of Paris
B. Treaty of Versailles
C. Treaty of Constantinople
D. Treaty of Vienna

8. When was Ireland forcibly incorporated into united kingdom?
A. 1798
B. 1799
C. 1800
D. 1801

9. Which is the most important plantation crop grown in Karnataka?
A. Tea
B. Coffee
C. Rice
D. Banana

10. 'There is enough for everybody's need but not for everybody's greed'. Who said these words ?
A. Gandhiji
B. Nehru
C. S.V.B. Patel
D. Medha Patkar

11. Which one of the following is the method of checking soil erosion ?

A. Strip cropping
B. Terrace farming
C. Contour ploughing
D. All of these

12. The land should be used in a optimum way, because land is a _____ resource.

A. Useless
B. Finite
C. Man made
D. None of them

13. Which one of the following is a major caste group of Sri Lanka :

A. Christian and Tamil
B. Buddhist and Hindu
C. Sinhali and Tamil
D. Sinhali and Christian

14. Which of the following includes foreign affairs?

A. Union list
B. State list
C. Concurrent list
D. Federal list

15. What led to tensions between Dutch-speaking and French-speaking community?

A. Cultural difference between the two communities
B. Delay in getting benefits of economic development by Dutch community
C. Delay in getting benefits of economic development by French community
D. None of the above

16. What percentage of Belgium's population lives in Flemish region?

A. 30%
B. 40%
C. 50%
D. 59%

17. Which one of the following communities constituted majority in Brussels?

A. Dutch-speaking
B. French-speaking
C. German-speaking
D. English-speaking

18. ATM is an example of:

A. Primary sector
B. Organised sector
C. Secondary sector
D. Tertiary sector

19. Which of the following sectors is also called the agricultural and allied sector?

A. Primary sector
B. Secondary sector
C. Tertiary sector
D. Public sector

20. Which among the following activities is not related to primary sector?

A. Mining
B. Making sugar
C. Fishing
D. Natural gas extraction

21. Which of the following is a drawback of using average income as a measure of development ?

A. Average income does not indicate the disparity in income level.
B. Calculation of average income is a tedious process.
C. Average income is always lower than the actual income of people.
D. Average income fails to indicate the economic stability of a country.

22. In addition to the level of income, which of the following measures are important for measuring the development status of a nation ?

A. Literacy level and health facilities
B. Bond prices and stock prices
C. Inflation level
D. Interest level

23. Which of the following best defines the Gross Domestic Product (GDP) of a country ?

A. It is the decrease in the value of assets over a given period of time.

B. It is the value of final goods and services produced within the domestic territory of a country.
C. It is the difference between value of goods imported and the value of goods exported.
D. It is the value of all final goods and services produced by the citizens of a country within and outside the country.

24. People may have different developmental goals; what is development for one, may even be …….. for the other.

A. Constructive
B. Equal
C. Same
D. Destructive

Section - B

(Attempt any 18 out of 22 questions)

25. Study the picture and answer the question that follows:

Which of the following aspect best signifies the above image?

A. Romanticism
B. Conservatism
C. Federalism
D. Feminism

26. Which of the following option(s) is/are correct about the French Revolutionaries?

I. The Revolutionaries adopted ideas of *la patrie* and *le citoyen*.
II. They formulated unequal laws for different classes of the society.
III. They replaced the standard royal flag by the new French tricolour flag.

Options:

A. I & II
B. II & III
C. Only I
D. I & III

27. What was the name of the language spoken by the Scottish people?

A. Polish
B. Gaelic
C. Magyar
D. French

28. Identify the reason which would facilitate the movement and exchange of goods and capital from one region to another.

A. A common national currency
B. Uniform laws
C. Standardised weights and measures
D. All of the above

29. Identify the crop with the help of clues given below:

- A kharif crop which requires temperature between 21°C to 27°C.
- Used both as food and fodder.
- Grown as rabi crop in Bihar.

A. Ragi
B. Maize
C. Jowar
D. Bajra

30. Which of the following is not a major social group in Sri Lanka?

A. Indian Tamils
B. Sinhalese
C. Anglo-Indians
D. Sri Lankan Tamils

31. Consider the following statements regarding language policy of Indian Federation.

I. Hindi was identified as the official language.
II. Besides Hindi, there are 21 other languages recognised as scheduled languages.
III. English can be used along with Hindi for offical purpose.

Choose the right option from the following :

A. I and III
B. I and II
C. only I
D. I,II and III

32. How many times was the Belgian Constitution amended between 1970 and 1993?

A. Four times
B. Five times
C. Three times
D. Seven times

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Culture played an important role in creating the idea of the nation.

Reason (R): Weavers in Silesia had led a revolt against contractors who supplied raw material and gave them orders for finished textiles but drastically reduced their payments.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

34. Match the following items given in column A with those in column B.

Column A	Column B
A. Caricature of Otto von Bismarck	(1) Idea of a people's nation
B. Giuseppe Mazzini	(2) Union Jack
C. British Flag	(3) Italy
D. Marianne	(4) Germany

A. a - 3, b - 4, c - 1, d - 2
B. a - 4, b - 2, c - 1, d - 3
C. a - 4, b - 3, c - 2, d - 1
D. a - 2, b - 3, c - 4, d - 1

35. Amita came to know about Mahatma Gandhi National Rural Employment Guarantee Act in which government ensures 100 days work. When was this Act implemented?

A. 2002
B. 2003
C. 2004
D. 2005

36. Identify the sector of Indian economy with the help of the following information.

- Rules and regulations are not followed.
- Jobs are low-paid and often not regular.
- Employment is not secure.

A. Organised sector
B. Unorganised sector
C. Public sector
D. Private sector

37. Which one of the following criteria is the basis to measure the development of a country according to UNDP?

A. Per capita income
B. Health status of people
C. Educational levels of the people
D. All of the above

38. Consider the following statements regarding public facilities and select the answer using the codes given below:

I. These are the services provided by the government to the citizens.

II. Sanitation, public transport, health care etc. are some of the important public facilities.

III. Income by itself is not a completely adequate indicator of medical material goods and services.

IV. Money in pocket can buy all the goods and services that one person may need to live well.

Options:

A. I, II & III
B. II, III & IV
C. I, III & IV
D. I, II & IV

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): India has a federal system.

Reason (R): Under a unitary system, either there is only one level of government or the subunits are subordinate to central government.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

40. Choose the correct option from the following:

List –I (Year)	List – II (Activity)
A. 1804	Greek Independence for struggle
B. 1815	Treaty of Vienna
C. 1717	Napoleonic Wars
D. 1821	Civil War

41. Read the following data and information carefully and select the most appropriate answer from the given options:

SOME DATA REGARDING INDIA AND ITS NEIGHBOURS FOR 2013				
Country	**Gross National Income (GNI) per capita (2011 PPP $)**	**Life Expectancy at birth**	**Literacy Rate for 15+ yrs population 2005-2012**	**HDI Rank in the world**
Sri Lanka	9250	74.3	91.2	73
India	5150	66.4	62.8	135
Myanmar	3998	65.2	92.7	150
Pakistan	4652	66.6	54.9	146
Nepal	2194	68.4	57.4	145
Bangladesh	2713	70.7	57.7	142

A study was conducted about GNI, Life Expectancy at birth, Literacy Rate and HDI Rank in the world regarding India and its neighbouring countries.

Identify the difference between GNI of Sri Lanka and Nepal.

A. 6,056
B. 7,056
C. 6,506
D. 7,506

42. Ramesh is undernourished as his weight is 42 kg and his height is 1.74 metre. Find out his Body Mass Index (BMI) from the following options.

A. 13.9 B. 13.2

C. 14.8 D. 15.3

43. During celebration of Independence Day, Seema saw statue of Bharat Mata displayed on stage. She remembered her teacher told her that personification of their country is called Bharat Mata. She wondered whose allegory she would see when she would go to Germany. Help her to find out allegory of Germany.

A. Gaucho B. Marine

C. Germania D. Johnny Canuck

44. According to 2019-20 data, production of important crop and largest producing states was:

- Rice –West Bengal, Uttar Pradesh, Punjab
- Wheat – Uttar Pradesh, Madhya Pradesh, Punjab
- Maize – Karnataka, Madhya Pradesh, Telangana

Out of three crops why rice is grown in West Bengal, Uttar Pradesh and Punjab. Select the most suitable option from the following:

A. Because here temperature is above 25°C and rainfall is above 100 cm.

B. Because here temperature is between 21-27°C and rainfall is between 50-75 cm.

C. Because here temperature is above 25°C and rainfall is above 100 cm.

D. Because here temperature is between 21-30°C and rainfall is between 50- 100 cm.

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): GDP shows how big an economy is.

Reason (R): GDP is the value of all goods and services produced within the domestic territory of a country in a year.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

46. In Kerala, 12 Infants die before the age of one year as a proportion of 100 live children born in that particular year. Of which type is this an example?

A. Literacy rate B. Infant mortality rate

C. Net attendance ratio D. Death rate

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Federalism is a system of government in which the power is divided between a central authority and various constituent units of the country. Usually, a federation has two levels of government. One is the government for the entire country that is usually responsible for a few subjects of

common national interest. The others are governments at the level of provinces or states that look after much of the day-to-day administering of their state. Both these levels of governments enjoy their power independent of the other. In this sense, federations are contrasted with unitary governments. Under the unitary system, either there is only one level of government or the sub-units are subordinate to the central government. The central government can pass on orders to the provincial or the local government. But in a federal system, the central government cannot order the state government to do something. State government has powers of its own for which it is not answerable to the central government. Both these governments are separately answerable to the people.

47. A federation has how many levels of government? (Choose the most appropriate answer)

A. Two
B. Three
C. Four
D. All of these

48. Which government can pass on orders to the local government?

A. Provincial
B. Community
C. State
D. Central

49. Fill in the blank from the given options:

Under the unitary system, either there is _____level of government or the sub-units are subordinate to the central government.

A. One
B. Two
C. Three
D. Four

50. Which among the following given options is/are incorrect ?

I. One is the government for the entire country that is usually responsible for a few subjects of common national interest.
II. The others are governments at the level of provinces or states that look after much of the day-to-day administering of their state.
III. Both these levels of governments enjoy their power interdependent of the other.

Options:

A. I & III
B. II & III
C. III Only
D. I Only

51. In which sense, federations are contrasted with unitary governments?

A. Under the unitary system, there is only one level of government.
B. The sub-units are subordinate to the central government.
C. Both of these.
D. None of these

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): In a federal system, the central government cannot order the state government to do something.

Reason (R): State government has powers of its own for which it is not answerable to the central government.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Read the source given below and answer the questions that follow by choosing the most appropriate option:

The main characteristic of this type of farming is the use of higher doses of modern inputs, e.g. high yielding variety (HYV) seeds, chemical fertilisers, insecticides and pesticides in order to obtain higher productivity. The degree of commercialisation of agriculture varies from one region to another. For example, rice is a commercial crop in Haryana and Punjab, but in Odisha, it is a subsistence crop. Plantation is also a type of commercial farming. In this type of farming, a single crop is grown on a large area. The plantation has an interface of agriculture and industry. Plantations cover large tracts of land, using capital intensive inputs, with the help of migrant labourers. All the produce is used as raw material in respective industries.

In India, tea, coffee, rubber, sugarcane, banana, etc. are important plantation crops. Tea in Assam and North Bengal coffee in Karnataka are some of the important plantation crops grown in these states. Since the production is mainly for market, a well- developed network of transport and communication connecting the plantation areas, processing industries and markets plays an important role in the development of plantations.

53. Name the main characteristic of this type of farming that is practiced in order to obtain higher productivity? (Choose the most appropriate answer)

A. High yielding variety (HYV) seeds
B. Use of chemical fertilisers
C. Use of insecticides and pesticides
D. All of the above

54. Read the following statements and find the INCORRECT from the given options.

I. In this type of farming, a single crop is grown on a large area.

II. Plantations cover small tracts of land, using capital intensive inputs, with the help of migrant labourers. All the produce is used as raw material in respective industries.

III. The states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits.

Options:

A. I & II
B. II & III
C. III Only
D. II Only

55. Assam and North Bengal in northeast and Karnataka in south are major producers of plantation crops. Identify the plantation crops which are grown in these states respectively.

A. Rubber, Sugarcane
B. Tea, Coffee
C. Rubber, Tea
D. Tea, Sugarcane

56. Identify the crop which is not a plantation crop.

A. Coffee
B. Rubber
C. Jute
D. Coconut

57. Give example of crop that is a subsistence crop in one area and commercial crop in another.

A. Rice
B. Sugarcane
C. Banana
D. Wheat

58. Which of the following factors play an important role in the development of plantations in India?

A. Availability of markets
B. Well-developed network of transport
C. Processing industries
D. All of the above

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.

59. On the political map of India, 'A' is marked as a dam. Identify it from the following options.

A. Periyar Dam
B. Nagarjuna Sagar Dam
C. Tehri Dam
D. Koyna Dam

60. On the same map, 'B' is also marked as a major sugarcane producing state. Identify it from the following options.

A. Uttar Pradesh
B. Punjab
C. Madhya Pradesh
D. Bihar

❑❑

Sample Paper 6

Social Science

Section - A

(Attempt any 20 out of 24 questions)

1. Choose the correctly matched pair from the following:

A. Otto Von Bismarck-Germany
B. Napoleon-Spain
C. Giuseppe Garibaldi -France
D. Bourbon Kings-Italy

2. Which one of the following claimed that true German culture was discovered among the common people-dos volk?

A. Karol Karpinski
B. Louis Philippe
C. Carl Welcker
D. Johann Gottfried Herder

3. Identify the correct pair of year and the action taken by revolutionaries in unification of Italy.

A. 1831 - Efforts of Mazzini failed
B. 1859 - Italy unified
C. 1817 - Italy fragmented in seven States
D. 1863 - Cavour through diplomacy allied France to defeat Austria

4. Which one of the following was NOT among the symbols of the new Britain when a new 'British nation" was forged through the propagation of dominant English culture?

A. Union Jack
B. God Save Our Noble King
C. English Language
D. Irish Language

5. Identify which of the following contexts was advocated on the international level for the first time the resources conservation?

A. The Club Rome advocated resource conservation for the first time in a more systematic way in 1968.
B. The Brundtland Committee Report published it.
C. It was discussed in an Indian Affairs with America Discussion.
D. It was discussed through a book called Small is Beautiful.

6. Choose the correctly matched pair of the system of voting.

A. Absolutist — vision of society
B. Utopian — A form of government
C. Plebiscite — A system of direct vote
D. Suffrage — A system of holding electron

7. Red laterite soil is suitable for growing _____ crop.

A. Coffee
B. Tea
C. Wheat
D. Cashew nut

8. Which of the following pulses do not help in restoring soil fertility?

A. Moong
B. Gram
C. Peas
D. Arhar

9. In which of the following state deforestation due to mining have caused severe land degradation?

A. Jharkhand, Madhya Pradesh
B. Gujarat, Rajasthan, Odisha
C. Maharashtra, Chhattisgrah
D. All of the above

10. Which of the following institution is not one of the three organs of government that shares powers?

A. Legislature
B. Bureaucracy
C. Executive
D. Judiciary

11. Which of the following measures does not establish Sinhale supermacy in Sri Lanka?

A. Sinhala is the only official language.
B. Preferential Policies for government jobs.
C. The state shall protect and faster Buddhism.
D. Equal political rights to Sri Lankan

12. Identify the main reason for the killing of thousands of people in Sri Lanka?

A. Cold war between Sinhala and Tami speaking population
B. Civil war between Sinhala and Tamil speaking population
C. Atomic war between Sinhala and Tamil speaking population
D. None of the above

13. Which of the following right leads to the division of land among upcoming generations in India?

A. The right to property
B. The right of inheritance
C. The right of successor
D. None of the above

14. It is a system of dividing up power between a central national government and local state governments that are connected to one another by the national government. Identify the correctly matched pair of the type of government from the options given below:

A. Federal government - Entire country
B. Centre Government - Regional area
C. Community government - Third level of government
D. State Government - Particular area of country

15. There are many things that are not easily measured but they mean a lot to our lives. These are often ignored. Identify the best suitable option from the following in reference to the context.

A. Regular work
B. Friendship
C. Better wages
D. Decent price for crops

16. The idea of development or progress has always been with us. We have aspiration or desires about what we would like to do and how we would like to live. Similarly, we have ideas about what a country should be like.

Which of the following is the right replacement for the underlined sentence?

A. We have community goals
B. We have occupational goals.
C. We have developmental goals
D. We have social goals

17. This is the general pattern observed in developed countries. Infer the meaning of general pattern noticed earlier from the following statements.

A. Shift from secondary to tertiary sector in developed countries.
B. Shift from primary to tertiary sector in developed countries.
C. Shift from secondary to primary sector in developed countries.
D. Shift from primary to secondary sector in developed countries.

18. Which organisation conducts a survey on employment and unemployment?

A. NSSO
B. NREGA
C. ILO
D. NITI Aayog

19. Which among the following is the method to control land degradation ?

A. Deforestation
B. Intensive cultivation
C. Overgrazing
D. Afforestation

20. Which one of the following statement defines 'Literacy Rate' ?

A. Total literate population divided by total population.
B. Total literate population divided by total literate population
C. Proportion of literate population in the 18 and above age group
D. It measures the proportion of literate population in the 7 years and above age group.

21. Which of the following best defines the Gross Domestic Product (GDP) of a country?

A. It is the decrease in the value of assets over a given period of time.
B. It is the value of final goods and services produced within the domestic territory of a country.
C. It is the difference between value of goods imported and the value of goods exported.
D. It is the value of all final goods and services produced by the citizens of a country within and outside the country.

22. Bank/ATM is an example of which sector?

A. Industrial sector
B. Primary
C. Tertiary
D. None

23. Which level of government in India has the power to legislate on the 'Residury' subjects?

A. Union Government
B. State Government
C. Local Self Government
D. Both A and B

24. Apart from the Central and the State government, there is third kind of government. This 'Community Government' is elected by people belonging to one language community–Dutch, French and German-speaking–no matter where they live. This government has the power regarding cultural, educational and language-related issues.

A. Central Government
B. State Government
C. Community Government
D. Belgian Government

Section - B

(Attempt any 18 out of 22 questions)

25.

Which of the following define the above image correctly?

A. Mutual understanding between the coalition partners.
B. The states should not go to the centre with a begging bowl.
C. The states pled for more power.
D. It is against the essence of federalism.

26. Which of the following step was not taken by the Belgium leader to accommodate social differences?

I. Equal representation was given to Dutch and French speaking ministers in the Central Government.

II. Many powers of the central government were given to state government.

III. Principles of majoritarianism was followed

Options:

A. I & II B. II & III

C. Only II D. Only III

27. Which of the following types of farming is practised in areas with high population pressure on land?

A. Primitive subsistence farming B. intensive subsistence farming

C. Commercial farming D. Plantations

28. Identify the one functioning activity of the Tertiary sector.

A. Goods that are produced would need to be transport by trucks or trains and then sold in wholesale and retail shops.

B. This sector gradually become associated with the different kinds of industries.

C. Activities in which natural products are changed into other forms through ways of manufacturing.

D. Produce a good by exploiting natural resources.

29. Identify the region from the information given below:

- Geographical and ethnic region
- They were jealous of each other

A. Balkan state B. Ottoman empire

C. Both (a) and (b) D. None of them

30. Which of the following did the European conservatives not believe in?

A. Traditional insitution of state policy

B. Strengthened monarchy

C. A return to a society of pre-revolutionary days

D. Strengthened aristocracy

31. Consider the following statements of alluvial soil and select the answer using the codes given below:

I. It consists of various proportions of salt, silt and clay.

II. It is red in colour.

III. It is very fertile.

IV. It is described on the basis of age.

Options:

A. I, II & III B. I, III & IV

C. I, II & IV D. II, III & IV

32. What percentage of Belgiums population live in Flemish region ?

A. 40% B. 30% C. 59% D. 50%

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): The basic idea behind decentralisation is to focus on locality based issues and problems.

Reason (R): Local government is the worst method of realizing the concepts of democracy.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

34. Match the following items given in Column A with those in Column B.

Column A	Column B
1. The total number of children enrolled in or attending primary school, as a percentage of total number of children of primary school age.	A. Per Capita income
2. This is the total percentage of the population of an area at a particular time aged 7 years or above, who can read and write with understanding at least one language.	B Life expectancy at birth
3. This is the total National income (GDP) divided by the total population.	C. Net Attendance Ratio
4. This is the number of years, a new born child is expected to live if subject to the mortality risks prevailing for the population concerned.	D. Literacy Rate

A. 1-C, 2-D, 3-A, 4-B
B. 1-D, 2-C, 3-A, 4-B
C. 1-A, 2-B, 3-C, 4-D
D. 1-B, 2-A, 3-D, 4-C

35. Meena likes to read history of various countries. She gets to know that Sri Lanka got its independence in the year 1948. But an Act was passed which recognized Sinhala as an official language of Sri Lanka. Help her in finding out the correct year.

A. 1955 B. 1956 C. 1957 D. 1958

36. Identify the type of system with the help of the following information:

(i) It is derived from the latin word 'libes'
(ii) It stands for the end of aristocratic and clerical privileges.
(iii) It emphasis under strained freedom of thought and religion

A. Liberalism
B. Revolutionism
C. Romanticism
D. None of these

37. Which of the following options is correct about power sharing?

I. Power sharing is good for democracy.
II. It is not the spirit of democracy.
III. It helps to reduce the possibility of conflict between social groups.
IV. It ensure the stability of political order.

Options:

A. I, II, & IV
B. I, II & IV
C. I, III, IV
D. II, III, IV

38. Identity the correct statements regarding language policy of Indian Federation:

I. Hindi was identified as the official language.
II. English is our national language
III. Besides Hindi, there are 21 other languages recognised as scheduled languages
IV. Our constitution did not give the status of national language to any one language.

Options:

A. I & II B. I & III C. II & III D. II & IV

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Normally, your money cannot buy you a pollution-free environment or ensure you that you get unadulterated medicines.

Reason (R): Money may also not be able to protect you from infectious diseases, unless the whole of your community takes preventive steps.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

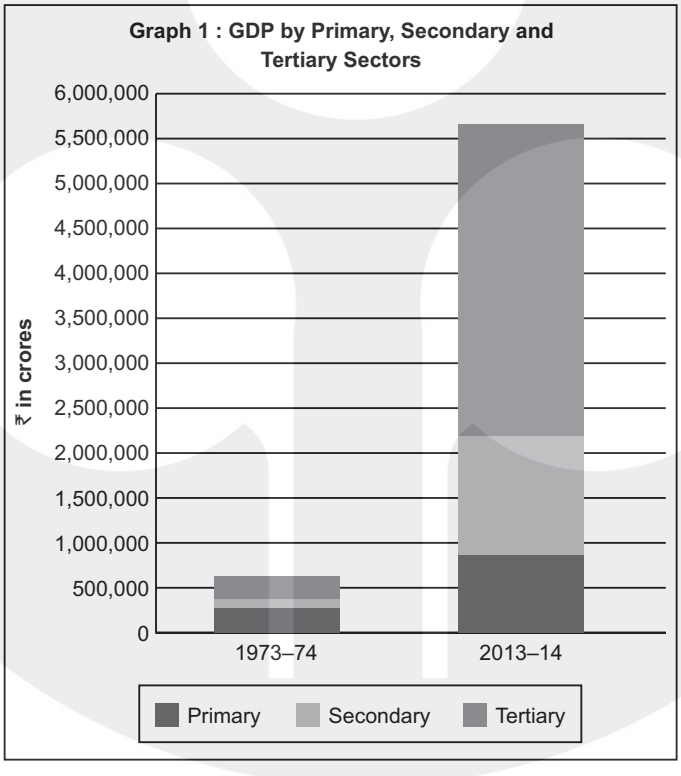
C. A is true but R is false.

D. A is false but R is true.

40. Choose the correct option from the following:

List A (Features)	List B (Country)
A. Capita income is low	Developed
B. Capital formatting is high	Developing
C. Efficiency and productivity is low	Developed
D. Standard of living is high	Developed

41. Read the following data and information carefully and select the most appropriate answer from the given options:



Minal is asked by the teacher to read the above graph which shows the production of goods and services in the three sectors. This is shown for two years 1973-74 and 2013-14. She was asked to compare how the total production has grown over the forty years and answer the following question.

Can you say which sector has grown the most over forty years?

A. Primary B. Secondary

C. Tertiary D. All sectors developed equally

42. Reema is undernourished as her weight is 20 kgs and her height is 1.50 meters. Find out her Body Mass Index (BMI) from the following options.

A. 12.6 B. 13.5 C. 19.05 D. 8.88

43. A Vessel dumped 500 tonnes of liquid toxic wastes into open-air dumps in a city and in the surroundings area of sea. The fumes from the highly toxic waste caused nausea, skin, rashes, fainting, diarrhoea etc. After a month, seven persons were dead, twenty in hospital and twenty-six thousand treated for symptoms of poisoning. Find out from the following what should be the development goal for this city?

A. Pollution free environment
B. National Development
C. Equitable Distribution
D. Safe and secure environment

44. After a 26-year military campaign, the Sri Lankan military defeated the Tamil Tigers in May 2009, bringing the civil war to an end. Immediately following the end of war, on 20 May 2009, the UN estimated a total of 80,000–100,000 deaths. Select the correctly matched pair of Sri Lanka and its main events.

A. 1948 - Dominance of Sinhala speaking
B. 1980 - Sri Lanka got its independence
C. 1956 - Demand of independent Tamil Elam
D. 2009 - End of civil war

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Rakesh is an educated and skilled worker who earns a high monthly salary as he is employed in a private bank in a city.

Reason (R): All services sectors in India are growing extremely well and each individual engaged in any kind of tertiary activity earns a high income.

Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

46. As a literary device, an allegory is a narrative in which a character, place, or event is used to deliver a broader message about real-world issues and occurrences. What is the allegory of France?

A. Marianne
B. Germania
C. Mother Hayastan
D. Effray of the Republic

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions that follow by choosing the most appropriate option:

From the very beginning, the French revolutionaries introduced various measures and practices that could create sense of collective identity amongst the French people. The ideas of *la patrie* (the fatherland) and *le citoyen* (the citizen) emphasized, the notion of a united community enjoying equal rights under a constitution. A new French flag, the tricolour, was a chosen to replace the former royal standard. The Estates General was elected by the body of active citizens and renamed the National Assembly. New hymns were composed, oaths taken and martyrs commemorated, all in the name of the nation. A centralized administrative system was put in place and it formulated uniform laws for all citizens within its territory. Internal customs duties and dues were abolished and a uniform system of weights and measures was adopted. Regional dialects were discouraged and French, as it was spoken and written in Paris, became the common language of the nation.

47. What was the idea behind *la patrie* and *le citoyen*?

A. A united community enjoying equal rights under a constitution.
B. Use of common language
C. A centralized administrative system
D. Use of French as it was spoken and written in Paris

48 What measures and practices were introduced by the French Revolutionaries?
A. All citizens have equal rights
B. Uniform laws for all citizens
C. Centralized Administrative system
D. All of these

49. Fill in the blank from the given options
A centralized _____ system was put in place and it formulated uniform laws for all citizens within its territory.
A. legislative
B. executive
C. judiciary
D. administrative

50. Select the incorrect option from the following statements:
I. The ideas of la patrie and le citoyen was emphasized.
II. Centralized administrative system did not formulated uniform laws for all citizens.
III. Internal customs duties and dues were abolished.
Options:
A. I & II
B. II & III
C. III Only
D. II Only

51. How was the Estate General elected?
A. By the rulers.
B. By the body of active citizens
C. By the National Assembly.
D. By all of these.

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.
Assertion (A): From the very beginning, the French revolutionaries introduced various measures and practices that could create sense of collective identity amongst the French people.
Reason (R): The ideas of la patrie (the fatherland) and le citoyen (the citizen) emphasized, the notion of a united community enjoying equal rights under a constitution.
Options:
A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Read the source given below and answer the questions that follow by choosing the most appropriate option:
Planning is the widely accepted strategy for judicious use of resources. It has importance in a country like India, which has enormous diversity in the availability of resources. There are regions which are rich in certain types of resources but are deficient in some other resources. There are some regions which can be considered self-sufficient in terms of the availability of resources and there are some regions which have acute shortage of some vital resources. For example, the states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits. Arunachal Pradesh has abundance of water resources but lacks in infrastructural development. The state of Rajasthan is very well endowed with solar and wind energy but lacks in water resources. The cold desert of Ladakh is relatively isolated from the rest of the country. It has very rich cultural heritage but it is deficient in water, infrastructure and some vital minerals. This calls for balanced resource planning at the national, state, regional and local levels.

53. Why planning has importance in a country like India?
A. It is the widely accepted strategy for judicious use of resources.
B. India has enormous diversity in the availability of resources.
C. Both reasons
D. None of these

54. Read the following statements and find the INCORRECT from the given options:
I. The states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits.
II. Rajasthan has abundance of water resources but lacks in infrastructural development.
III. The cold desert of Ladakh is relatively isolated from the rest of the country.

Options:

A. I & II B. II & III C. III Only D. II Only

55. According to the information given above, the state of Rajasthan is very well endowed with which natural resources but lacks in water resources.

A. Solar and wind energy B. Water resources.

C. Minerals and cultural heritage D. All of these.

56. Which of the following method is widely accepted for judicious use of resources?

A. Production B. Planning C. Reuse D. Distribution

57. Arunachal Pradesh has abundance of which resources but lacks in infrastructural development.

A. Coal B. Water C. Culture D. Mineral

58. Why some regions are considered self-sufficient?

A The availability of resources B Acute shortage of some vital resources

C Has abundance of water resources D None of these

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.

59. On the political map of India, 'A' is marked as a dam. Identify it from the following options.

A. Tehri Dam B. Tungabhadra Dam

C. Sardar Sarovar Dam D. Koyna Dam

60. On the same map, 'B' is also marked as a type of soil. Identify it from the following options:

A. Alluvial soil B. Red soil

C. Laterite soil D. Black soil

❑❑

Sample Paper 7

Social Science

Section - A

(Attempt any 20 out of 24 questions)

1. Identify the correct statement with regard to 'The Civil Code of 1804' from the following options:
A. A new constitution with citizens enjoying equal rights was adopted
B. A centralised administrative system was formulated
C. All the privileges based on birth were abolish
D. It emphasised the concept of government by consent

2. Which year became the source of tension in Europe?
A. 1871 B. 1914 C. 1902 D. 1892

3. Identify the option which is correct about Italy?
A. In 1859, Kingdom of Piedmont and Sardinia gain Lombardy from the Austrlian Europe
B. Garbaldi conquers Sicily and Naples
C. In 1860, Panama, Modena and Tuscany joined it
D. All of the above

4. A treaty was signed in London in 1827, by:
A. England B. France
C. Russia D. All of these

5. The Polish State was divided into partitioned among the:
A. Russians, Germans and Prussians B. Germans, Austrians and Prussians
C. Russians, Prussians and Austrlians D. None of the above

6. Choose the correct pair of soil and the areas covered by it.
A. Red and yellow soil - Western Rajasthan
B. Laterite soil - Chhattisgarh and Western Ghats
C. Arid soil - Kerala and Tamil Nadu
D. Forest soil - Hills and mountains

7. _____is the main food crop of the North and North- western parts of the country.
A. Rice B. Wheat
C. Maize D. Jowar

8. Under which of the following type of resources can tidal energy be put ?
A. Renewable B. Abiotic
C. Human-made D. Non-renewable

9. Which one of the following statements refers to the sustainable development?
A. Overall development of various resources
B. Development should take place without damaging the environment
C. Economic development of people
D. Development that meets the desires of the members of all communities

10. Calcium carbonate, potash and lime minerals are found in which type of soil?
A. Alluvial B. Laterite C. Black D. Arid

11. Which of the following is not a characteristic of unorganised sector?
A. Small and scattered units which are largely outside the control of the government
B. Rules and regulations are not followed
C. Jobs here are high-paid and often regular
D. No provision for overtime, paid leave, holidays, medical leaves

12. Choose a correct pair of HDI and its variables.
A. Long and healthy life - Health facilities B. Literacy - Good nutrition
C. Standard of living - Good schools D. Proper BMI - Good jobs

13. Which among the following is correct pair of development and its indicators?
A. Social development - Sex ratio
B. Environmental development - Good salary
C. Economic development - Security
D. Physical development - Working condition.

14. Which is the state religion of Sri Lanka?
A. Buddhism B. Islam
C. Hinduism D. Christianity

15. The power sharing arrangement in Belgium prevented the possible division of the country on :
A. Linguistic basis B. Religious basis
C. Regional basis D. None of the above

16. In Sri Lanka, which series of measures were adopted to establish the majority of the Sinhalese population?
A. Federal government B. Majoritarian government
C. Community government D. Prudential government

17. Why is there a need for third level of government in India?
A. A large number of problems and issues which are best settled at the local level
B. Indian states are large and internally very diverse
C. Both (a) and (b)
D. None of above

18. Which of the following includes foreign affairs ?
A. Union List B. State List
C. Concurrent List D. Federal List

19. Which one of the following is also called average income ?
A. National Income B. Per capita income
C. Total Income D. All of the above

20. Which of the following is another name for primary sector?
A. Service sector B. Agriculture and related sector
C. IT sector D. Industrial sector

21. 'Coming together federation' is not found in which of the following country ?
A. India B. U.S.A.
C. Switzerland D. Australia

22. In UP, most of the industries run on thermal power but in Gujarat, it is mandatory for the industries to run on solar energy. Which state do you think has adopted sustainable development?

A. Gujarat
B. UP
C. Both (a) and (b)
D. None of these

23. "Jaggery making" is an example of which sector?

A. Primary sector
B. Secondary Sector
C. Tertiary Sector
D. Non-economic sector

24. Analyse the information given below, considering one of the following correct options :

It includes subjects of common interests to both the Union Government as well as the State government, such as education, forest, trade unions, marriage, adoption and succession. Both the union as well as the state government can make laws on the subjects mentioned in this list.

A. Concurrent List
B. Union List
C. State List
D. Government List

Section - B

(Attempt any 18 out of 22 questions)

25.

Which of the following aspect best signifies this image of 'a street address in Belgium'?

A. Constitution prescribes that the number of Dutch and French-speaking ministers shall be equal in the central government.
B. The state governments are not subordinate to the central government.
C. The Belgian model is very complicated, even for people living in Belgium.
D. Brussels has a separate government in which both the communities have equal representation.

26. Which of the following option(s) is the main reason for degradation of land in Punjab?

(I) Intensive cultivation
(II) Over irrigation
(III) Deforestation
(IV) Overgrazing

Options:

A. I & II
B. II & III
C. Only II
D. Only I

27. Why did the Sri Lankan Tamils launch parties and struggle?

A. To adopt majoritarianism
B. To recognise Sinhalese as the only official language
C. To recognise Tamil as an official language
D. To dominate other languages

28. Identify among the given types of soil which soil is red to brown in colour?

A. Arid soil
B. Sandy soil
C. Black soil
D. None of them

29. Identify the following and choose the correct option:

(i) It was signed in 1707.

(ii) It was signed between England and Scotland.

(iii) It resulted in the formation of United Kingdom of Great Britain.

Options :

A. Treaty of Constantinople
B. Treaty of Paris
C. Act of Union
D. Treaty of Vienna

30. What did the idea of le citoyen signify in the French Revolution?

A. The motherland
B. The fatherland
C. The citizens
D. The community

31. Consider the following statements regarding Britain as it is considered to be a strange case of unification and write the answer using the codes given below:

I. It was the result of a long drawn revolution.

II. The primary identities of the people who inhabited the British Isles were ethnic ones.

III. The English help the Protestants of Ireland to establish their dominance over a large catholic country.

IV. England was able to impose its influence over Scotland.

Options:

A. I, II & III
B. II, III ,& IV
C. I, III & IV
D. I, II & IV

32. Who were the 'Junkers'?

A. Soldiers
B. Large landowners
C. Aristocracy
D. Weavers

33. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Power should reside with one person and group located at one place in a democracy.

Reason (R): If the power is dispersed, it will not be possible to take decision quickly and enforce it.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

34. Match the following items given in column A with those in column B.

Column 'A'	Column 'B'
(1) Sri Lanka	(A) 68.8
(2) India	(B) 66.6
(3) Pakistan	(C) 75.5
(4) Nepal	(D) 70.6

A. 1-C,2-A,3-B,4-D
B. 1-B,2-D,3-C,4-A
C. 1-A,2-C,3-D,4-B
D. 1-D,2-B,3-A,4-C

35. In Belgium the government is elected by the specific body which is the correctly matched pair of the government of Belgium and its elected body?

A. Central government - People living in state
B. State government - People living in particular area
C. Community government - People belonging to one community
D. Local government - People living in whole country

36. Identify the type of the decentralisation in India with the help of the following information.

- Each village has Gram Panchayat.
- It has Panchs and a Sarpanch.
- He/She is directly elected by the adult population living in the village.
- Panchayat works under the Gram Sabha.

Select the appropriate option from the following:

A. Panchayati Raj system
B. Gram sabha
C. Zila Parishad
D. Municipalities

37. Which of the following options prove the country and its types of federation.

I. India - Coming together
II. Spain - Holding together
III. Belgium - Coming together
IV. USA - Holding together

Options:

A. I, III & IV
B. I, II & IV
C. II, III & IV
D. II only

38. Identify which of the following is true for disguised unemployment?

A. When individuals are unemployed for more than 100 days in a year, they are disguisedly unemployed.
B. If individuals become unemployed because a country starts using new technology and the skills of workers become obsolete, they are disguisedly unemployed.
C. If individuals become unemployed because they are changing their jobs or moving from one place to another, they are disguisedly unemployed.
D. When individuals are engaged in some work, however, they work less than their potential, then they are disguisedly unemployed.

39. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): A state has a per capita income of ₹ 2, 25, 000 per annum. The infant mortality rate in the state is 62%. So, the state cannot be considered a developed state.

Reason (B): There are medical facilities in the state, but people fail to take their children to hospital in time.

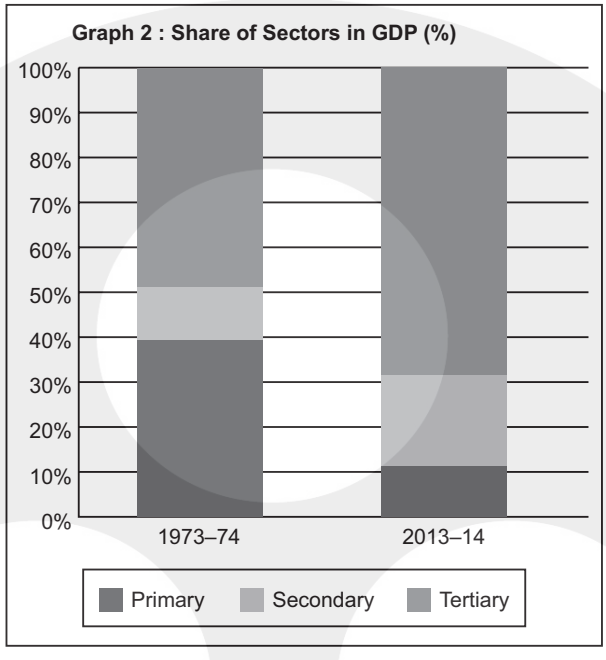
Options:

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

40. Choose the correct option from the following:

List- I (Abbreviation)	List -II (Full form)
A. MR	Medical representative
B. IMR	Indian medical resources
C. HDI	Human development index
D. NAR	National aeronautical research

41. Read the following data and information carefully and select the most appropriate answer from the given options:



Seema, a student of class 10 was reading the chapter- Sectors of Indian Economy. While studying about various sectors and their contribution in Indian economy, following bar diagram was discussed. She was told by the teacher that primary sector large number of people involved. She got confused by analysing the graph.

Identify and compare contribution of tertiary sector in GDP of year 1973-74 and 2013-14.

A. 100% and 100% B. 55% and 65%

C. 45% and 75% D. 50% and 50%

42. Ananya is undernourished as her weight is 50 kgs and her height is 1.62 meters. Find out her Body Mass Index (BMI) from the following options.

A. 12.6 B. 13.5 C. 19.05 D. 15.2

43. Which of the following is true for a renewable resource?

A. Renewable resources can never be overused as they are in abundance.

B. Renewable resources are replenished by the nature over a period of time.

C. Renewable resources are fixed and they are bound to get exhausted.

D. Renewable resources are available only in developed nations.

44. According to the information given below about the powers of the government:

I. The idea of power-sharing has emerged in support of the notions of undivided political power.

II. For a long time it was believed that all power of a government must reside in one person or group of persons located at one place.

III It was felt that if the power to decide is dispersed, it would not be possible to take quick decisions and to enforce them.

Choose the INCORRECT option/s from the given options:

Options:

A. I & II B. II & III C. I Only D. III Only

45. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Leela works five days a week, receives her income on the last day of each month and gets medical facilities from her firm.

Reason (R): Leela is working in organised sector.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

46. Name the sector which continued to be the largest employer till today.

A. Secondary B. Primary C. Tertiary D. None of these

Section - C

(This section consists of two cases. There are total of 12 questions in this section. Attempt any 10 questions from this section.)

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Let us look at Romanticism, a cultural movement which sought to develop a particular form of nationalist sentiment. Romantic artists and poets generally criticized the glorification of reason and science and focused instead on emotions, intuition and mystical feelings. Their effort was to create a sense of a shared collective heritage, a common cultural past, as the basis of a nation. Other Romantics such as the German philosopher Johann Gottfried Herder (1744-1803) claimed that true German culture was to be discovered among the common people–*das volk*. It was through folk songs, folk poetry and folk dances that the true spirit of the nation (volksgeist) was popularised. So collecting and recording these forms of folk culture was essential to the project of nation-building.

47. Which movement sought to develop a particular form of nationalist sentiment?

A. Collective B. Volksgeist

C. Romanticism D. Common cultural past

48. Which feeling was glorified by Romantic artists and poets?

A. The glorification of reason and science.

B. Focused emotions, intuition and mystical feelings.

C. The glorification of reason, science, emotions, intuition and mystical feelings.

D. None of these

49. Fill in the blank from the given options

Romantics such as the German philosopher Johann Gottfried Herder (1744-1803) claimed that true German culture was to be discovered among the common people…….. It was through folk songs, folk poetry and folk dances that the true spirit of the nation (volksgeist) was popularised.

A. das volk B. volksgeist

C. dasgeist D. volkdas

50. How was true German culture was to be discovered among the common people ?

A. By folk song B. By folk poetry

C. By folk dances D. By all of these

51. Which among the following is incorrect option?

I. Romantics such as the German philosopher Johann Gottfried Herder claimed that true German culture was to be discovered among the common people–dasvolk.

II. It was not through folk songs, folk poetry and folk dances that the true spirit of the nation (volksgeist) was popularised.

III. The ideas of *la patrie* and *le citoyen* were emphasized.

Options:

A. I only
B. II only
C. III only
D. All of those

52. Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option.

Assertion (A): Romantics such as the German philosopher Johann Gottfried Herder (1744-1803) claimed that true German culture was to be discovered among the common people–dasvolk.

Reason (R): So collecting and recording these forms of folk culture was essential to the project of nation-building.

Options:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Mining sites are abandoned after excavation work is complete leaving deep scars and traces of over-burdening. In Jharkhand, Chhattisgarh, MadhyaPradesh and Odisha deforestation due to mining have caused severe land degradation states like Gujarat, Rajasthan, Madhya Pradesh and Maharashtra overgrazing is one of the main reasons for land degradation. In the states of Punjab, Haryana, western Uttar Pradesh, over irrigation is alkalinity in the soil. The mineral processing like grinding of limestone for cement industry and calcite and soapstone for ceramic industry generate huge quantity of dust in the atmosphere. It retards the process of irrigation of water into the soil after it settles down on the land. In recent years, industrial effluents as waste have become a major source of land and water pollution in many parts of the country.

53. Which issue is addressed in the extract above?

A. Land degradation
B. Water pollution
C. Air pollution
D. Noise pollution

54. Read the following statements and find the INCORRECT from the given options:

I. Mining sites are abandoned after excavation work is complete leaving deep scars and traces of over-burdening.

II. In Jharkhand, Chhattisgarh, MadhyaPradesh and Odisha deforestation due to mining have caused severe land degradation states like Gujarat, Rajasthan, Madhya Pradesh and Maharashtra overgrazing is one of the main reasons for land degradation.

III. In the states of Punjab, Haryana, western Uttar Pradesh, over grazing is alkalinity in the soil.

Options:

A. I & II
B. II & III
C. III Only
D. III Only

55. According to the information given above, which of these human activates is responsible deteriorating quality of land?

A. Mining
B. Land degradation
C. Mineral processing
D. None of these

56. The mineral processing like grinding of limestone for cement industry and calcite and soapstone for which industry generate huge quantity of dust in the atmosphere?

A. Ceramic
B. Cement
C. Oil
D. Minerals

57. Which of these has led to land degradation in Punjab?

A. Over irrigation
B. Mining
C. Deforestation
D. All of these.

58. Which sites are abandoned after excavation work is complete leaving deep scars and traces of over-burdening.

A. Mining
B. Grazing
C. Eroded
D. None of these

Section - D

(Attempt both the Map based questions)

On the given outline map of India, identify the locations with the help of specified information.

59. On the political map of India, 'A' is marked as a dam. Identify it from the following options.

A. Bhakra Nangal Dam
B. Nagarjuna Sagar Dam
C. Tehri Dam
D. Salal Dam

60. On the same map, 'B' is also marked as a type of soil. Identify it from the following options:

A. Forest soil
B. Arid soil
C. Alluvial soil
D. Laterite soil

❑❑

Answers

Sample Paper 1

Section - A

1. B. Educated middle - class
2. C. 1866–1871
3. D. Willingness to make peace
4. B. Metternich
5. A. an independent nation
6. B. Onset of monsoon–Kharif
7. B. Summer
8. A. Gandhi ji
9. D. Production of milk
10. C. Sericulture
11. A. Linguistic basis
12. C. North and East
13. B. 1948
14. B. Vertical division of power.
15. A. India
16. A. Union list
17. A. Religious divisions
18. A. Human Development Index
19. C. Sustainable development refers to meeting human development goals while maintaining the ability of natural systems to provide and replenish natural resources upon which the economy is dependent.
20. B. Income
21. A. More days of work and better wages
22. B. Discrimination
23. D. Their dignity in the household and society increases
24. C. Income

Section - B

25. B. Postage stamp with picture of Marianne.
26. C. only I
27. C. La Talia was Victor Emmanuel's wife.
28. B. Alluvial soil
29. B. Technology
30. C. Wheat, peas and gram
31. A. I, II & III
32. A. Accumulation of resources in few hands

33. A. Balkan area became an area of intense conflict. It also became the scene of big power rivalry. This led to a series of war and eventually the First World War. The conflict of control over Balkans was also a reason for intense rivalry among European powers. Thus, both assertion and reason are true, and reason is the correct explanation of the assertion.

34. D. a - 4, b - 2, c - 1, d - 3

35. C. Majoritarianism

36. A. Parliamentary form of government

37. D. All of the above

38. C. I, III & IV

39. D. Activities of mining caused land degradation because mining sites are abandoned after excavation work, this results in over - burdening. Control on mining check land degradation. Overgrazing activities in the mentioned states have contributed significantly in land degradation. Thus, assertion is false but reason is true.

40. C. Majoritarian—Rule by majority community

41. A. 99%

42. B. 30.1

Explanation: BMI = $\frac{\text{Weight}}{[\text{Height}]^2} = \frac{66}{1{\cdot}48 \times 1{\cdot}48} = 30{\cdot}1$

43. D. Plantation agriculture

44. A. Belgium must have followed the policy of Majoritarianism

45. D. Belgians adopted a power sharing arrangement in which all the communities have equal representation. This helped in relieving tension between the different communities. So they did not favour any particular community. Thus, the assertion is false and reason is true.

46. A. Coming Together

Section - C

47. D. All of these

48. A. The Bourbon

49. A. Belgium

50. D. I only

51. D. By all of these

52. B. Both A and R are true, and R is not the correct explanation of A.

53. C. It includes other scientists also

54. A. I & II

55. A. The question of development or progress is perennial.

56. A. The question of development or progress is perennial.

57. B. Environmental degradation

58. A. Consequences of environmental degradation do not respect national or state boundaries.

Section - D

59. D. Rana Pratap Sagar Dam

60. A. Black soil

Sample Paper 2

Section - A

1. C. Unification of Germany
2. B. Napoleonic Code
3. A. Karol Kurpinski.
4. A. Common people
5. D. National Assembly
6. B. Milpa - Mexico
7. B. Over irrigation
8. B. Alluvial soil
9. A. Paddy
10. D. 1968
11. B. Buddhists
12. A. Brussels
13. B. Dutch
14. C. Decentralisation
15. D. 1965
16. C. Social groups
17. A. iv-i-iii-ii
18. C. Human Development Report.
19. A. Would a development plan benefit people from suburbs ?
20. C. Tertiary sector
21. A. Primary sector
22. C. It has adequate provision of basic health and educational facilities.
23. C. Per capita income
24. B. Sri Lanka

Section - B

25. D. Brussels has a separate government in which both the Communities have equal reprsentation.
26. C. I & II
27. B. Peasants
28. D. France lost the territories it had annexed under Napoleon.
29. A. Kharif
30. C. They can be renewed or reproduced by physical, chemical or mechanical processes.
31. A. I, II & III
32. A. Replenishable
33. A. The French Revolution proclaimed that it was the people who would henceforth, constitute the nation and shape its destiny. From the very beginning, the French revolutionaries introduced various measures and practices that would create a sense of collective identity amongst the French people. The centralised administrative system was one of the measures

taken for making uniform laws for all citizens within its territory. Thus, both assertion and reason are true, and reason is the correct explanation of the assertion.

34. D. a - 3, b - 4, c - 2, d - 1

35. B. Intensive subsistence farming

36. A. Loam soil

37. D. I only

38. B. Only II

39. D. Terraces, cut out on slops in forms of steps breaks up the force of the wind thus, preventing erosion. The gullies render cultivation in those lands impossible. Thus, assertion is false, but reason is true.

40. C. Olive branch around the sword— Willingness to make peace

41. D. 70%

42. A. A sailor in Merchant navy

43. D. Majoritarianism

44. A. Primary sector is not registered.

45. D. Power should reside with one person and group located at one place in a monarchy/ dictatorship. While it is distributed among citizens in a democracy. Thus, assertion is false, but reason is true.

46. B. Government of different level

Section - C

47. A. Horizontal distribution of power.

48. C. Both the factors

49. B. Organs

50. D. I Only

51. A. Horizontal distribution of power.

52. A. Both A and R are true, and R is the correct explanation of A.

53. D. Discrimination

54. A. I & II

55. B. Friendship

56. D. Friends

57. C. Both A and B

58. D. All of these.

Section - D

59. B. Hirakud Dam

60. D. Haryana

Sample Paper 3

Section - A

1. B. Otto von Bismarck

2. A. Military of monarch of Prussia and Junkers
3. D. Supremacy of State oriented nationalism.
4. C. Giuseppe Mazzini
5. D. being freed
6. A. Sericulture - Production of silk
7. D. All of these
8. D. Jharkhand
9. B. Rabi crop
10. B. Renewable resources are replenished by the nature over a period of time.
11. B. Buddhists
12. C. North and East
13. A. Eighth Schedule
14. C. Both national and state importance
15. C. No language is given the status of national language.
16. D. Creation of an independent Tamil Eelam (state).
17. C. Due to economic disparity
18. B. Agriculture and related sector
19. C. Goods that are used as raw material for the production of other goods during a year.
20. A. The notion of development is different for people from different sections of society.
21. A. Identify, promote and locate industries and services where a large number of people can be employed.
22. A. The activities of tertiary sector help in the development of primary and secondary sector.
23. C. I, III & IV
24. B. Health and education

Section - B

25. D. Public distribution system
26. C. I, III & IV
27. D. Anton von Werner
28. A. Giuseppe Mazzini
29. C. Arid soil
30. A. Freedom for individual and equality before law
31. D. I, II & IV
32. D. Vast Estates
33. C. Germany, Italy and Switzerland were divided into kingdoms, duchies and cantons whose rulers had their autonomous territories. Diverse people lived within the territories. They did not share a collective identity or a common culture. They spoke different languages belonged to different ethnic groups. There were no close ties binding them. Thus, assertion is true but reason is false.
34. D. a - 2, b - 3, c - 4, d - 1
35. C. One-third
36. B. Concurrent List
37. A. I, II & III
38. C. I, III & IV

39. C. Organic farming is much in vogue today because it is practiced without factory made chemicals such as fertilizers and pesticides. Hence, it does not affect environment and human beings in a negative manner. Thus, assertion is true but reason is false.
40. D. Primary — Forestry
41. C. 1:4
42. D. ₹ 6000

> **Explanation:** Total income of four families = 5000 × 4 = 20000
> Total income of three families = 4000 +7000 + 3000 = 14000
> Income of the fourth family = 20000 – 14000 = 6000

43. B. Ask for allowance under MGNREGA
44. C. Money can buy things that will make life comfortable
45. C. Belgians adopted a power sharing model where all the communities got equal representation; this helped in solving tension between different communities. However, Sri Lanka tried to promote the supremacy of Sinhala community which eventually led to civil war. Thus, the assertion is true, but reason is false.
46. A. Utopian

Section - C

47. A. In opposition to the notions of undivided political power
48. D. All of these
49. B. Self-government
50. C. I only
51. A. Political
52. A. Both A and R are true, and R is the correct explanation of A.
53. D. All of these
54. A. I & III only
55. D. By all of these.
56. D. Paddy.
57. D. October to December
58. B. Mahawat

Section - D

59. D. Salal Dam
60. C. Forest soil

Sample Paper 4

Section - A

1. A. Karol Kurpinski.
2. C. Use of Polish language.
3. A. Wolfe Tone and his United Irishmen (1798) failed against the Protestants who were supported by the English to establish their dominance over a largely Catholic country
4. C. 1866–1871
5. B. Giuseppe Mazzini

6. B. Onset of monsoon – Kharif
7. C. Summer
8. D. Afforestation
9. D. Barley
10. D. Overgrazing
11. D. 1965
12. B. Legislature, executive, judiciary.
13. B. power independent of the other.
14. D. National Assembly
15. C. Both A. and B.
16. A. The notion of development is different for people from different sections of society.
17. C. Tertiary Sector
18. A. Would a development plan benefit people from suburbs ?
19. A. Duke Metternich
20. D. Intermediate good
21. B. Sri Lanka
22. A. Victor Emmanuel II
23. B. Electronic television development
24. C. Sustainable development refers to the development that meet the needs of the present generation without compromising the ability of the future generations to meet their own needs.

Section - B

25. B. Postage stamp with picture of Marianne
26. A. Frederick Sorrieu - Democratic and social Republic
27. A. Contractors did not pay their dues
28. D. Germany
29. A. Rice
30. A. Individual resource
31. C. I, III & IV
32. A. I, II & III
33. B. In a democracy, people elect the representatives who participate in the decision making process. Due respect and proper representation is given to diverse groups in a democratic system. Hence, in democracy everyone has voice in the shaping of public policies. Thus assertion and reason both are true but reason is not the correct explanation of the assertion.
34. (i)-D, (ii)-C, (iii)-B, (iv)-A
35. A. 1831
36. A. Wheat
37. A. I, II & III
38. A. I, II & III
39. D Germany fought against the Triple Entente, which consisted of British, France and Russia. Thus, Assertion is false but Reason is true.
40. A. Collectivization — Institutional reforms
41. C. 764.3
42. A. US $ 955
43. D. All of these
44. B. Otto von Bismarck
45. A. India is an agrarian country as two-thirds of its population is engaged in agricultural activities. Agriculture is a primary activity, which produces most of the foods that we consume. Thus, both assertion and reason are true and reason is the correct explanation of assertion.
46. **A.** The military actions

Section - C

47. A. Horizontal distribution of power.
48. C. Both the factors
49. B. Organs
50. D. I Only
51. A. Horizontal distribution of power.
52. A. Both A and R are true, and R is the correct explanation of A
53. C. It includes other scientists also
54. A. I & II
55. A. The question of development or progress is perennial.
56. A. The question of development or progress is perennial.
57. B. Environmental degradation
58. A. Consequences of environmental degradation do not respect national or state boundaries.

Section - D

59. A. Tungabhadra Dam
60. D. Kerala

Sample Paper 5

Section - A

1. D. Supremacy of State oriented nationalism.
2. C. Giuseppe Mazzini
3. B. Matternich
4. C. July Revolution
5. A. French Revolution
6. A. Mango - Maharashtra
7. C. Treaty of Constantinople.
8. A. 1798
9. B. Coffee
10. A. Gandhiji
11. D. All of these
12. B. Finite.
13. C. Sinhali and Tamil
14. A. Union list
15. B. Delay in getting benefits of economic development by Dutch community
16. D. 59%
17. B. French-speaking
18. D. Tertiary sector
19. A. Primary sector
20. B. Making sugar
21. A. Average income does not indicate the disparity in income level.
22. A. Literacy level and health facilities

23. B. It is the value of final goods and services produced within the domestic territory of a country.

24. D. Destructive

Section - B

25. A. Romanticism

26. D. I & III

27. B. Gaelic

28. D. All of the above

29. B. Maize

30. C. Anglo-Indians

31. D. I, II and III

32. A. Four times

33. B. Culture played an important role in creating the idea of the nation: art and poetry, stories and music helped express and shape nationalist feelings. Thus, both assertion and reason are true, but reason is not the correct explanation of assertion.

34. C. A. 4, B. 3, C. 2, D. 1

35. D. 2005

36. B. Unorganised sector

37. D. All of the above

38. A. I, II & III

39. B. India has a federal government. There is a central government for the entire country and state governments for different regions. Thus assertion and reason both are true, but reason is not the correct explanation of assertion.

40. B. 1815 — Treaty of Vienna

41. B. 7,056

42. A. 13.87

Explanation: BMI = $\frac{\text{Weight}}{[\text{Height}]^2} = \frac{42}{1{\cdot}74 \times 1{\cdot}74} = 13{\cdot}87$

43. C. Germania

44. A. Because here temperature is above 25°C and rainfall is above 100 cm

45. A. GDP is the value of all final goods and services produced within a country. A higher GDP is indicative of higher production level and higher economic activity. Also, a higher GDP implies people of the country are earning more so it is indicative of the size of an economy. Thus, both assertion and reason are true, and reason is the correct explanation of the assertion.

46. B. Infant mortality rate

Section - C

47. A. Two

48. D. Central

49. A. One

50. C. III Only

51. C. Both of these.
52. A. Both A and R are true, and R is the correct explanation of A.
53. D. All of the above
54. B. II Only
55. B. Tea, Coffee
56. C. Jute
57. A. Rice
58. D. All of the above

Section - D

59. B. Nagarjuna Sagar Dam
60. A. Uttar Pradesh

Sample Paper 6

Section - A

1. A. Otto Von Bismarck-Germany
2. D. Johann Gottfried Herder
3. A. 1831- Efforts of Mazzini failed
4. D. Irish Language
5. C. The Club of Rome advocated resources conservation for the first time in a more systematic way in 1968.
6. C. Plebiscite- (iii) A system of direct vote
7. D. Cashew nut
8. D. Arhar
9. D. All of the above
10. B. Bureaucracy
11. D. Equal political rights to Sri Lankan
12. B. Civil war between Sinhala and Tamil speaking population
13. B. The right of inheritance
14. A. Federal government - Entire country
15. B. Friendship
16. C. We have development tools
17. A. Shift from secondary to tertiary sector in developed countries.
18. A. NSSO
19. D. Afforestation
20. D. It measures the proportion of literate population in the 7 years and above age group.
21. B. It is the value of final goods and services produced with in the domestic territory of a country.
22. C. Tertiary
23. A. Union Government
24. C. Community Government

Section - B

25. C. The states pled for more power.
26. C. Only II
27. B. intensive subsistence farming
28. A. Goods that are produced would need to be transport by trucks or trains and then sold in wholesale and retail shops.
29. A. Balkan state
30. C. A return to a society of pre-revolutionary days
31. B. I, III & IV
32. C. 59%
33. C. When power is taken away from Central and State governments and given to local government, it is called decentralisation. The basic idea behind decentralisation is that there are a large number of problems and issues which are best settled at the local level. People have better knowledge of problems in their localities. They also have better ideas on where to spend money and how to manage things more efficiently. Besides, at the local level it is possible for the people to directly participate in decision making. This helps to inculcate a habit of democratic participation. Local government is the best way to realise one important principle of democracy, namely local self-government. Thus, assertion is true but reason is false.
34. A. 1-C, 2-D, 3-A, 4-B
35. B. 1956
36. A. Liberalism
37. C. I, III, IV
38. B. I & III
39. A. Both Assertion and Reason are correct and Reason is the correct explanation of Assertion.
40. D. Standard of living is high — Developed
41. C. Tertiary
42. D. 8.88

Explanation: BMI = $\frac{\text{Weight}}{[\text{Height}]^2} = \frac{20}{[1.50 \times 1.50]} = 8.88$

43. A. Pollution free environment
44. D. 2009 - End of civil war
45. C. All the service sectors in India are not growing at the same pace they are subject to change as per market conditions. Thus, assertion is true but reason is false.
46. A. Marianne

Section - C

47. A. A united community enjoying equal rights under a constitution.
48. D. All of these
49. D. Administrative
50. D. II Only
51. B. By the body of active citizens
52. A. Both A and R are true, and R is the correct explanation of A
53. B. India has enormous diversity in the availability of resources.
54. D. II Only
55. A. Solar and wind energy

56. B. Planning
57. B. Water
58. A. The availability of resources

Section - D

59. C. Sardar Sarovar Dam
60. A. Alluvial soil

Sample Paper 7

Section - A

1. C. All the privileges based on birth were abolish
2. A. 1871
3. D. All of the above
4. D. All of these
5. C. Russians, Prussians and Austrlians
6. D. Forest soil—Hills and mountains
7. B. Wheat
8. A. Renewable
9. B. Development should take place without damaging the environment
10. C. Black
11. C. Jobs here are high-paid and often regular
12. A. Long and healthy life - Health facilities.
13. A. Social development - Sex ratio
14. A. Buddhism
15. A. Linguistic basis
16. B. Majoritarian government
17. C. Both (a) and (b)
18. A. Union List
19. B. Per capita income
20. B. Agriculture and related sector
21. A. India
22. A. Gujarat
23. B. Secondary Sector
24. A. Concurrent List

Section - B

25. A. Constitution prescribes that the number of Dutch and French-speaking ministers shall be equal in the central government.
26. C. Only II
27. C. To recognise Tamil as an official language
28. A. Arid soil
29. C. Act of Union
30. C. The citizens
31. B. II, III ,& IV

32. B. Large landowners

33. D. Power should reside with one person and group located at one place in a monarchy/ dictatorship. While it is distributes among citizens in a democracy. Thus, assertion is false, but reason is true.

34. A. 1-C, 2-A, 3-B, 4-D

35. C. Community government -People belonging to one community

36. A. Panchayati Raj system

37. D. II only

38. D. When individuals are engaged in some work, however, they work less than their potential, then they are disguisedly unemployed.

39. C. The assertion is true; however, the reason is false because if the parents are earning well and medical facilities are available, then they would definitely take their child for timely treatment. Also, some parents may fail to do so, but not so many that the infant mortality rate would be as high as 62%. Thus, assertion is true, but reason is false.

40. C. HDI — Human Development Index

41. B. 55% and 65%

42. C. 19.05

Explanation: BMI = $\frac{\text{Weight}}{[\text{Height}]^2} = \frac{50}{1{\cdot}62 \times 1.62} = 19.05$

43. B. Renewable resources are replenished by the nature over a period of time.

44. C. I only

45. A. The firms in organised sector are registered by the government and have to follow its rules and regulations which are given in various laws such as the Factories Act, Minimum Wages Act, Payment of Gratuity Act, Shops and Establishments Act, etc. Thus, assertion and reason are true, and reason is the correct explanation of assertion.

46. B. Primary

Section - C

47. C. Romanticism

48. B. Focused emotions, intuition and mystical feelings.

49. A. das volk

50. D. By all of these

51. B. II only

52. B. Both A and R are true, and R is not the correct explanation of A

53. A. Land degradation

54. D. III Only

55. A. Mining

56. A. Ceramic

57. A. Over irrigation

58. A. Mining

Section - D

59. C. Tehri Dam

60. B. Arid soil

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2021-22

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47.	○	○	○	○
48.	○	○	○	○
49.	○	○	○	○
50.	○	○	○	○
51.	○	○	○	○
52.	○	○	○	○
53.	○	○	○	○
54.	○	○	○	○
55.	○	○	○	○
56.	○	○	○	○
57.	○	○	○	○
58.	○	○	○	○
59.	○	○	○	○
60.	○	○	○	○

Name of Exam : _____

2021-22

OMR Response Sheet

Roll No.							
1	○	○	○	○	○	○	○
2	○	○	○	○	○	○	○
3	○	○	○	○	○	○	○
4	○	○	○	○	○	○	○
5	○	○	○	○	○	○	○
6	○	○	○	○	○	○	○
7	○	○	○	○	○	○	○
8	○	○	○	○	○	○	○
9	○	○	○	○	○	○	○
0	○	○	○	○	○	○	○

Name _____

Class & Section _____

Subject _____

Subject Code : ☐☐☐

Date of Exam : D D / M M / YYYY

☐☐/☐☐/☐☐ ☐☐

Candidate's Sign.

Invigilator's Sign.

Instructions for filling the OMR sheet :

1. Use only black blue ballpoint pen to fill the circle
2. Use of pencil is strictly prohibited
3. Circle should be designed completely and properly
4. Cutting and erasing on this sheet is not allowed

Q. No.	A	B	C	D
1.	○	○	○	○
2.	○	○	○	○
3.	○	○	○	○
4.	○	○	○	○
5.	○	○	○	○
6.	○	○	○	○
7.	○	○	○	○
8.	○	○	○	○
9.	○	○	○	○
10.	○	○	○	○
11.	○	○	○	○
12.	○	○	○	○
13.	○	○	○	○
14.	○	○	○	○
15.	○	○	○	○
16.	○	○	○	○
17.	○	○	○	○
18.	○	○	○	○
19.	○	○	○	○
20.	○	○	○	○

Q. No.	A	B	C	D
21.	○	○	○	○
22.	○	○	○	○
23.	○	○	○	○
24.	○	○	○	○
25.	○	○	○	○
26.	○	○	○	○
27.	○	○	○	○
28.	○	○	○	○
29.	○	○	○	○
30.	○	○	○	○
31.	○	○	○	○
32.	○	○	○	○
33.	○	○	○	○
34.	○	○	○	○
35.	○	○	○	○
36.	○	○	○	○
37.	○	○	○	○
38.	○	○	○	○
39.	○	○	○	○
40.	○	○	○	○

Q. No.	A	B	C	D
41.	○	○	○	○
42.	○	○	○	○
43.	○	○	○	○
44.	○	○	○	○
45.	○	○	○	○
46.	○	○	○	○
47.	○	○	○	○
48.	○	○	○	○
49.	○	○	○	○
50.	○	○	○	○
51.	○	○	○	○
52.	○	○	○	○
53.	○	○	○	○
54.	○	○	○	○
55.	○	○	○	○
56.	○	○	○	○
57.	○	○	○	○
58.	○	○	○	○
59.	○	○	○	○
60.	○	○	○	○

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