



SSC MTS 2020 Tier I : 7

Oct S1

Mock Test Questions & Solutions

Mock Test Solutions in English

Questions

1. Select the most appropriate word that means the same as the group of words given.

The point at which the earth and the sky appear to meet

- | | |
|------------|------------|
| A. Crust | B. Horizon |
| C. Rainbow | D. Ocean |

2. Select the most appropriate word to fill in the blank.

There _____ a big park in front of our house.

3. Select the most appropriate word to fill in the blank.

To practise yoga, I usually wake up when the sun _____.

- A. covers
 - B. disappears
 - C. rises
 - D. sets

4. Select the most appropriate option to substitute the underlined segment in the given sentence.

I have online science classes for Wednesdays.

- A. on Wednesdays
 - B. from Wednesdays
 - C. in Wednesdays
 - D. at Wednesdays

5. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

The details of the menu for today's party has been worked out.

6. Select the most appropriate option to substitute the underlined segment in the given sentence.

If the town had been built at a lower altitude, it will be a lot warmer.

- A. Technology
- B. Technicality
- C. Discovery
- D. Engineering

14. Select the most appropriate word to fill in the blank.

I _____ the film we saw yesterday.

- A. didn't like
- B. wasn't like
- C. doesn't like
- D. haven't liked

15. Select the most appropriate ANTONYM of the given word.

CONFIRM

- A. Open
- B. Agree
- C. Reject
- D. Accept

16. Select the most appropriate meaning of the given idiom/phrase.

Break in

- A. Enter a building illegally
- B. End a relationship
- C. Be unable to control (one's) feelings
- D. Begin to do something) suddenly

17. Select the correctly spelt word.

- A. Safficiente
- B. Sephient
- C. Suffusiance
- D. Sufficient

18. The given sentence contains a grammatical error. Identify the segment that contains the error.

How many does the cricket bat cost?

- A. the cricket bat
- B. does
- C. How many
- D. cost

19. Select the most appropriate synonym of the given word.

EVIDENT

- A. Clear
- B. Aimless
- C. Complex
- D. Confusing

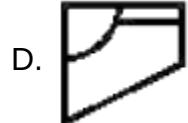
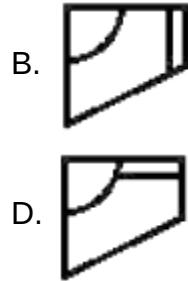
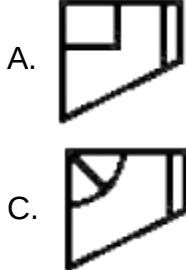
20. Select the most appropriate synonym of the given word.

CALM

Many reports have said that, in the context (###Q1###) Covid-19 lockdown, schooling and college education are likely to be online. The reports have (###Q2###) pointed out that this change will deny the students the experience of studying in a physical (###Q3###). This is because they can only interact with their teachers; they will miss the (###Q4###) to get to know their classmates and make real friends. Thus, the current situation has (###Q5###) many boys and girls and they are waiting for things to get back to normal.

Select the most appropriate option to fill in blank no. 1

27. In a certain code language, 'HOUSE' is written as '81261922' and 'INK' is written as '181411'. How will 'MISTAKE' be written in that language?
- A. 14901920261222 B. 13181920261122
C. 13181819261105 D. 13091920011122
28. Which of the following numbers will replace the question mark (?) in the given series?
- 11, 22, 25, ?, 105, 630
- A. 29 B. 55
C. 75 D. 100
29. Select the option that will replace the question mark (?) in the figure given below to complete the pattern.



30. Two statements are given followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

No bowler is a batsman.

Some bowlers are fielders.

Conclusions:

I. No fielder is a batsman.

II. No batsman is a bowler.

A. Both conclusions I and II follow.

C. Only conclusion II follows.

B. Only conclusion I follows.

D. Neither conclusion I nor II follows.

31. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

25	24	122
31	27	143
35	29	?

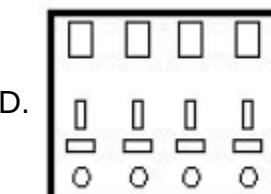
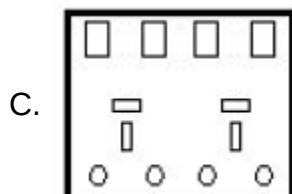
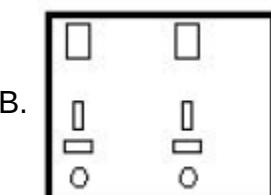
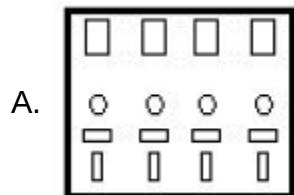
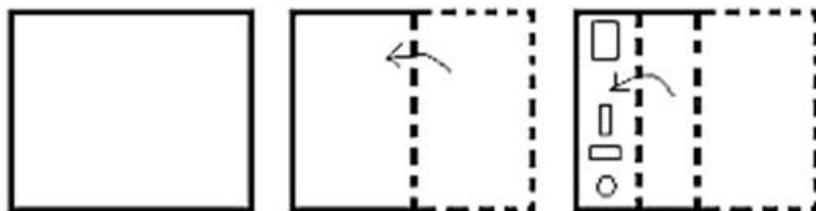
A. 197

B. 157

C. 114

D. 222

32. A paper is folded and cut as shown below. How will it appear when unfolded?



33. If $T > H > K > L$ and $V < K > Z = B$, then which of the following conclusions is NOT correct?

A. $T > L$

B. $V < T$

C. $K = B$

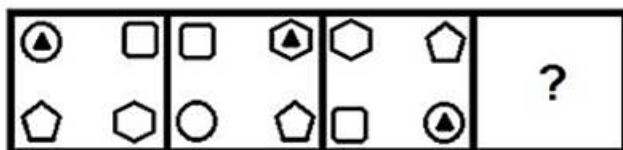
D. $H > Z$

34. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

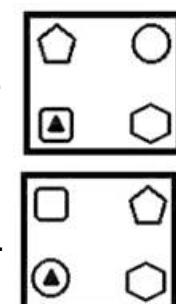
CANVAS : DCQZFY :: LOANER : ?

35. Five salesmen A, B, C, D and E are sitting in a meeting around a circular table. A is to the immediate left of E. C is to the immediate left of B. D is sitting between B and A. Who is sitting at the second place to the right of E?

36. Select the figure that will replace the question mark (?) in the following figure series.



-



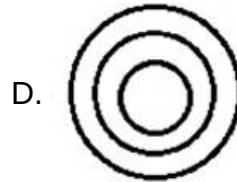
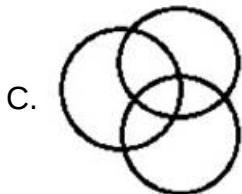
37. Select the option that is related to the third number in the same way as the second number is related to the first number.

$$6 : 85 :: 12 : ?$$

38. Select the Venn diagram that best illustrates the relationship between the following classes.

Females, Mothers, Sisters

- A.  B. 



Statements:

Some beauticians are architects.

All architects are cashiers.

Conclusions:

- I. Some architects are beauticians.
 - II. Some cashiers are architects.

III. Some cashiers are beauticians.

- A. Only conclusions I and III follow.
- B. Only conclusions II and III follow.
- C. All of the conclusions follow.
- D. Only conclusions I and II follow.

43. In a certain code language, 'ROMAN' is written as 'YVTHU'. How will 'THING' be written in that language?

- A. AORSN
- B. BCPUN
- C. APQUM
- D. AOPUN

44. Select the option that is related to the third word in the same way as the second word is related to the first word.

Pleasurable : Delightful :: Excellent : ?

- A. Endowed
- B. Comical
- C. Bonzer
- D. Happy

45. In a certain code language, 'CLASS' is written as 'TTBMD'. How will 'DINOSOUR' be written in that language?

- A. SVPTPOJE
- B. SVPRPJKE
- C. SWPUPOJE
- D. SXOSPOJE

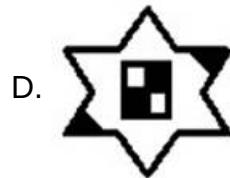
46. Which of the following numbers will replace the question mark (?) in the given series?

50, 86, ?, 127, 136, 140, 141

- A. 123
- B. 99
- C. 111
- D. 103

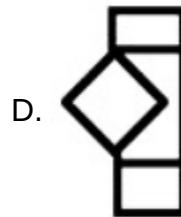
47. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.







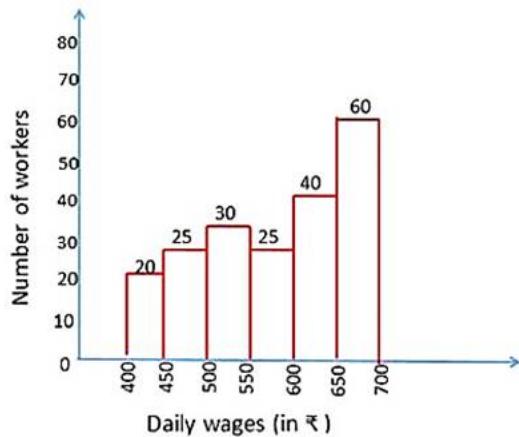
(X)



- 51. Direction:** Study the graph and answer the question given below.

The given graph represents the number of workers getting daily wages (in ₹).

Total number of workers = 200



The total number of workers whose daily wages are less than ₹550 is what percentage less than the total number of workers whose daily wages are ₹550 and above?

C. 2:1

D. 3:1

62. If the area of the base of a cylinder is 346.5 cm^2 and the area of the curved surface is 990 cm^2 , then its height is: (Take $\pi = \frac{22}{7}$)

A. 10 cm

B. 12 cm

C. 14 cm

D. 15 cm

63. What is the value of x , if $(5+4^2) \div 3$ of $x - 2 \times 4 = -7$?

A. -3

B. 5

C. 7

D. -7

64. If the volume of a sphere is $65\frac{10}{21} \text{ cm}^3$, then its surface area is:

(Take $\pi = \frac{22}{7}$)A. $77\frac{4}{7} \text{ cm}^2$ B. $76\frac{4}{7} \text{ cm}^2$ C. $78\frac{4}{7} \text{ cm}^2$ D. $78\frac{3}{7} \text{ cm}^2$

65. A sum of 8,500 amounts to ₹11,900 in 5 years at simple interest per annum. If the rate of interest is increased by 3%, then the increased amount for the same period is:

A. ₹12,175

B. ₹13,175

C. ₹12,475

D. ₹13,275

66. A certain number of persons can complete a piece of work in 46 days. If there were 8 persons more, the work could be finished in 16 days less. How many persons were originally there?

A. 25

B. 18

C. 15

D. 20

67. The average of seven consecutive odd numbers is 27. If the last number is removed from the list, then the average of the remaining numbers is:

A. 26

B. 25

C. 24

D. 22

68. The dimensions of a solid metallic cuboid are 36 cm, 54 cm and 24 cm. It is melted and recast into 8 cubes of same volume. The sum of the surface areas (in cm^2) of these 8 cubes is:

A. $\frac{7}{2}$ hours

B. $\frac{3}{2}$ hours

C. $\frac{5}{2}$ hours

D. $\frac{5}{3}$ hours

76. 'Povada dance' is a performing art from the state of _____.

A. Gujarat

B. Maharashtra

C. Rajasthan

D. Kerala

77. In which of the following states is Bhti Chitra (fresco painting) a popular art form?

A. Karnataka

B. Nagaland

C. Haryana

D. Maharashtra

78. The growing voice box in boys can be seen as a protruding part of the throat called _____.

A. bronchi

B. thyroid cartilage

C. trachea

D. Adam's apple

79. Litmus Solution is a purple dye, which is extracted from lichen, a plant belonging to the division _____.

A. Gymnosperms

B. Pteridophyta

C. Thallophyta

D. Bryophyta

80. Which part of a flower is the sticky surface at the top of the pistil, it traps and holds the pollen?

A. Style

B. Stigma

C. Sepal

D. Ovary

81. Imphal valley of Manipur is an important centre of _____ craft.

A. Kauna

B. Godna

C. Butta

D. Mirijims

82. Which is the second most important metallurgical industry in India?

A. Iron

B. Copper

C. Aluminium

D. Zinc

83. When did the Indian Army liberate Goa from the Portuguese and declare it a Union Territory?

A. 1967

B. 1961

C. 1952

D. 1969

84. As of July 2020, who among the following was the Director General of Indian Council of Medical Research (ICMR)?

A. Prof. Balram Bhargava

B. Prof. Subrata Sinha

Solutions

1. B

Sol. Crust: the outer layer of rock that forms the surface of the earth or another planet

Horizon: the furthest that you can see, where the sky seems to meet the land or the sea.

Rainbow: a curved band of different colours that appears in the sky when the sun shines through rain.

Ocean: the mass of salt water that covers most of the earth's surface.

Hence, **option B** is the correct answer.

2. C

Sol. Let us understand the meaning of the given words:-

- * *Are* = (plural helping verb) used in present tense.
- * *May be* = (modal) used to show the possibility.
- * *Is* = (singular helping verb) used in present tense.
- * *Were* = (plural helping verb) used in past tense.

Now let's find out the correct fit for the blank:

- * "Are" is a plural helping verb. Thus, option A is incorrect.
- * "May be" used to show the possibility but there is no sign in the sentence that necessitates its usage to show the possibility. Thus, option B is incorrect.
- * "Were" is used in past tense. Thus, option D is incorrect.
- * "Is" is a singular helping verb and it is used in present tense.
- * Here in the given sentence, it is used after the empty subject "there".
- * In sentences that begin with empty subjects (like It, There), verb is used in accordance with the complement.
- * Here, "park" is the complement, which is singular in nature. Thus, singular helping verb "Is" is used in the filler.

Thus, "Is" becomes the correct word to fill in the blank.

The correct sentence will be: **There is a big park in front of our house.**

3. C

Sol. Let us understand the meaning of the given words:-

- * *Covers* = to place something over or in front of something in order to hide, protect or decorate it.
- * *Disappears* = to become impossible to see.
- * *Rises* = (in context of sun, moon etc.) appears above the horizon.
- * *Sets* = (in context of sun, moon etc.) to go down below the horizon.

Now let's find out the correct fit for the blank:

- * "Covers" is used in context of "place something to hide/protect". Thus, option A is incorrect.
- * "Disappears" is used in context of "impossible to see". Thus, option B is incorrect.
- * "Sets" is used in context of "go below the horizon". Thus, option D is incorrect.
- * "Rises" is used in context of "appear above the horizon".
- * Here in the given sentence, it means in order to do yoga, the speaker wakes up when the sun appears above the horizon.

Thus, "Rises" becomes the correct word to fill in the blank.

The correct sentence will be: **To practise yoga, I usually wake up when the sun rises.**

4. A

Sol. The underlined part of the sentence is grammatically incorrect.

- * Underlined part needs correction in preposition.
- * "For" as a preposition is used to show reason or cause.

For example:

She got an award **for** bravery.

* “On” as a preposition is used to show a day or date.

For example:

He is not fit to play in the match **on** Sunday.

* In the underlined sentence, “Wednesdays” is a day but we have used preposition “for”. This is wrong. Thus, preposition “on” should be used in place of preposition “for”.

* Hence, **“on Wednesdays”** is the correct substitution.

Thus, the correct sentence will be: **I have online science classes on Wednesdays.**

Hence, **option A** is the correct answer.

5. B

Sol. **The underlined part of the sentence is grammatically incorrect.**

* Underlined part needs correction in verb.

* As per the Subject Verb agreement, verb should be in accordance with the subject. Singular verb should be used with singular subject. Plural verb should be used with plural subject.

For example:

This **detail suggests** that the killer knew his victim.

* In the underlined sentence, singular helping verb “has” is used for plural subject “details”.

* This is not according to the subject verb agreement. Thus, plural helping verb “have” should be used in place of singular helping verb “has”.

* So, **“have been”** is the correct substitution.

The correct sentence will be: **The details of the menu for today's party have been worked out.**

Hence, **option B** is the correct answer.

6. D

Sol. **The underlined part of the sentence is grammatically incorrect.**

* Underlined part needs correction in conditionals.

* Third Conditional sentence is used to show imagined result based on imagined condition. IF clause (condition) takes the past perfect tense and mentions the imagined condition. Main clause (result) takes “would/should have” and mentions the imagined result.

For example:

If he **had passed** the exam, he **would have** got the job.

* In the underlined sentence, we have used “will” in the clause having the result.

* But IF clause contains an imagined condition in past perfect form.

* Thus, as per the third conditionals “would have been” should be used in place of “will be”.

* Hence, “**would have been**” is the correct substitution.

Thus, the correct sentence will be: **If the town had been built at a lower altitude, it would have been a lot warmer.**

Hence, **option D** is the correct answer.

7. B

Sol. The idiom “**Go off**” means stop working.

Example: Suddenly the lights **went off**.

Note: “Go off” also means to leave a place, especially in order to do something. But in option C, the usage of word “disappear” with “Leave” dilutes the meaning of “leaving a place for some work”. It simply suggests the act of “disappearing” act like a ghost. That’s why option C is not marked as correct option.

Hence, **option B** is the correct answer.

8. B

Sol. Let us understand the meaning of the given words:-

* *Anything* = (pronoun) used instead of “something” in negative sentences and in questions.

* *Other* = (pronoun) used to refer to people or things that are additional or different to people or things that have been mentioned or are known about

* *Another* = (pronoun) an extra thing or person.

* *None* = (pronoun) not one of a group of people or things; not any.

Now let's find out the correct fit for the blank:

- * "Anything" is used in the context of "something" in negative sentences. Thus, option A is incorrect.
- * "Another" is used in the context of "an extra thing". Thus, option C is incorrect.
- * "None" is used in the context of "not any". Thus, option D is incorrect.
- * "Other" is used to refer to people or things that are additional or different to people or things that have been mentioned.
- * Here, it refers to "oil" that are different from that have been mentioned i.e. "one kind of oil".

Thus, "Other" becomes the correct word to fill in the blank.

The correct sentence will be: **To an ordinary person, one kind of oil is as important as other.**

9. B

Sol. Let's understand the meaning of the given words:

End = the final part of a period of time, an event, an activity.

E.g.: You will be given a chance to ask questions at the **end**.

Show = a programme on television or the radio.

Start = the point at which something begins

E.g.: We have not won a match since the **start** of this season.

Hide = to put or keep someone/something in a place where something/someone cannot be seen or found.

Close = to put something into a position so that it covers an opening

Hence, **option B** is the correct answer.

10. C

Sol.

Option C has correctly spelt word.

“Difference” is the correct spelling. It means the way in which two people or things are not like each other.

11. A

Sol. The sentence is grammatically incorrect, and the error lies in **option A**. The error is related to **Preposition**.

* “Although” is a conjunction and it is used to join two clauses. It is used for introducing a statement that makes the statement in a sentence seem surprising.

For example:

Although the sun was shining, it wasn’t very warm.

Here, two clauses are:

Clause1: It wasn’t very warm.

Clause2: The sun was shining.

* “Despite” is a preposition and it is used before nouns or pronouns. It is used to show that something happened or is true although something else might have happened to prevent it.

For example:

His voice was shaking **despite** all his efforts to control it.

* In the given sentence, there is no clause after “although”.

* Only one clause is there in the sentence.

* Thus, preposition “despite” should be used in place of conjunction “although”.

* So, “**despite having**” is the correct substitution.

Thus, the correct sentence will be: **Smitha was offered the job despite having no qualifications.**

Hence, **option A** is the correct answer.

12. C

Sol. The sentence is grammatically incorrect, and the error lies in **option C**. The error is related to **Tense**.

* Simple present tense is used to show the activities that are done on regular basis. First form of verb is used in simple present tense.

For example:

She **goes** swimming **every day** in order to keep fit.

* Present continuous tense is used when focus is on ongoing activity. Verb structure for present continuous tense: “is/am/are + V1 + ing”

For example:

She **is riding** the crest of the wave at the moment.

* In the given sentence, “everyday” means happening regularly.

* But we have used present continuous tense show the action which is regular in nature.

* Thus, first form of verb “goes” should be used in place of “is going”.

* Hence, “**Sumanth goes**” is the correct substitution.

Thus, the correct sentence will be: **Sumanth goes to school by the school bus every day**.

Hence, **option C** is the correct answer.

13. A

Sol. Technology: scientific knowledge used in practical ways in industry.

Technicality: the small details of how to do something or how something works

Discovery: an act or the process of finding someone/something.

Engineering: the activity of applying scientific knowledge to the design, building and control of machines, roads, bridges etc.

Hence, **option A** is the correct answer.

14. A

Sol. Let us understand the meaning of the given words:-

- * *Didn't like* = (verb structure) used in simple past tense.
- * *Wasn't like* = (verb structure) used in past tense.
- * *Doesn't like* = (verb structure) used in simple present tense.
- * *Haven't liked* = (verb structure) used in present perfect tense.

Now let's find out the correct fit for the blank:

- * "*Wasn't like*" is incorrect verb structure. Thus, option B is incorrect.
- * "*Doesn't like*" is used in simple present tense. Thus, option C is incorrect.
- * "*Haven't liked*" is used in present perfect tense. Thus, option D is incorrect.
- * "*Didn't like*" is used in simple past tense and it is the correct verb structure.
- * Here in the given sentence, the time word "yesterday" necessitates that tense of the sentence should be "past".
- * So, it is appropriate to use verb structure of simple past tense.

Thus, "*Didn't like*" becomes the correct word to fill in the blank.

So, the correct sentence will be: **I didn't like the film we saw yesterday.**

15. C

Sol. Let's understand the meaning of the given words:

Confirm= to state or show that something is definitely true or correct.

E.g.: Her guilty expression **confirmed** my suspicions.

Open = allowing things to go through.

Agree = to have the same opinion as someone.

Reject = to refuse to accept or consider something

E.g.: The minister **rejected** any idea of reforming the current system.

Accept = to take willingly something that is offered.

Hence, **option C** is the correct answer.

16. A

Sol. The idiom “**break in**” means entry into a building using force, usually to steal something.

Example: Burglars had **broken in** while we went to the market.

Hence, **option A** is the correct answer.

17. D

Sol. **Option D has correctly spelt word.**

“Sufficient” is the correct spelling. It means enough for a particular purpose; as much as you need.

18. C

Sol. The sentence is grammatically incorrect, and the error lies in **option C**. The error is related to **Adjective**.

* “Much” as a determiner is used with uncountable nouns, esp. in negative sentences to mean “a large amount of something”, or after “how” to ask about the amount of something.

For example:

How **much water** does she needs?

Water is an uncountable noun

* “Many” as a determiner is used with plural countable nouns.

For example:

How **many children** do you have?

Children is a countable noun.

* In the given sentence, “cost” is an uncountable noun. Thus, “much” should be used in place of “many”.

* Hence, “**How much**” is the correct substitution.

Thus, the correct sentence will be: **How much does the cricket bat cost?**

19. A

Sol. Let's understand the meaning of the given words:

Evident= clear; easily seen.

E.g.: The growing interest in international affairs is clearly **evident** among the youth of our country.

Clear = easy to understand and not confusing.

E.g.: He was quite **clear** about his reasons for going abroad.

Aimless = having no direction or plan

Complex = complicated

Confusing = difficult to understand; not clear.

Hence, **option A** is the correct answer.

20. B

Sol. Let's understand the meaning of the given words:

Calm= not excited/nervous/upset.

E.g.: She always stays **calm** under pressure.

Excited = feeling or showing happiness and enthusiasm.

Quiet = making very little noise.

E.g.: They were all **quiet** for a moment.

Disturbed = mentally ill, esp. because of very unhappy or unpleasant experiences.

Claim = to say that something is true although it has not been proved and other people may not believe it.

Hence, **option B** is the correct answer.

21. A

Sol. The given passage is about a report titled "**Schooling and College Education in Covid-19 lockdown**".

"At" as a preposition is used to show where something/someone is or where something happens. Thus, option B is wrong.

"From" as a preposition is used to show where someone/something starts. Thus, option C is wrong.

"In" as a preposition is used to show at a point within an area or a space. Thus, option D is wrong.

"Of" as a preposition is used to show relating to something. Here in the given sentence, it is used to relate the "reports" to "Covid-19 lockdown" i.e. those reports that are related to the Covid-19 lockdown.

Hence, **option A** is the correct answer.

22. A

Sol. The given passage is about a report titled "**Schooling and College Education in Covid-19 lockdown**".

"Addition" is a noun, and it means a thing that is added to something else. Thus, option B is wrong.

"Though" as a conjunction is used to show "despite the fact that". Thus, option C is wrong.

"But" as a conjunction is used to show contrast. Thus, option D is wrong.

"Also" as an adverb is used to show the sense of "too".

Here in the given sentence, it is used for verb "pointed".

By using this adverb, the author is trying to add the additional point that has been put in the report.

Hence, **option A** is the correct answer.

23. C

Sol. The given passage is about a report titled "**Schooling and College Education in Covid-19 lockdown**".

"Condition" means the state that something is in. Thus, option A is wrong.

“Area” means part of a place, town etc. Thus, option B is wrong.

“Situation” means all the circumstances and things that are happening at a particular time. Thus, option D is wrong.

“Campus” means the buildings of a university or college and the land around them.

In the given sentence, it means that online schooling and college education will not allow students get the feel of studying in a physical environment of universities/schools.

Hence, **option C** is the correct answer.

24. B

Sol. The given passage is about a report titled “**Schooling and College Education in Covid-19 lockdown**”.

“Reward” means a thing that someone is given because someone has done something good, worked hard etc. Thus, option A is wrong.

“Conduct” means a person’s behaviour in a particular place. Thus, option C is wrong.

“Award” means a prize such as money, etc. for something that someone has done. Thus, option D is wrong.

“Opportunity” means a chance. In the given sentence, it means that in online schooling and university education, students will miss the chance to interact with real friends and their classmates.

They will only have interaction with their teacher.

Hence, **option B** is the correct answer.

25. D

Sol. The given passage is about a report titled “**Schooling and College Education in Covid-19 lockdown**”.

“Supported” means to help or encourage someone/something by saying or showing that you agree with them/it. Thus, option A is wrong.

“Encouraged” means to give someone support, courage or hope. Thus, option B is wrong.

“Discouraged” means to try preventing something or to prevent someone from doing something. Thus, option C is wrong.

“Upset” means to make someone feel unhappy, anxious or annoyed.

In the given sentence, it means that boys and girls are unhappy/annoyed with the present situation of covid-19 lockdown.

Hence, **option D** is the correct answer.

26. D

Sol. If the two numbers are interchanged the equation becomes:

A). $49 \div 7 \times 5 + 35 - 42 = 18$

-> On solving the L.H.S we get;

-> $7 \times 5 + 35 - 42$

-> $35 + 35 - 42 = 28$

Not equal to R.H.S so it's incorrect.

B). $42 \div 7 \times 5 + 49 - 35 = 18$

-> On solving the L.H.S we get;

-> $6 \times 5 + 49 - 35$

-> $30 + 49 - 35 = 44$

Not equal to R.H.S so it's incorrect.

C). $42 \div 7 \times 35 + 5 - 49 = 18$

-> On solving the L.H.S we get;

-> $6 \times 35 + 5 - 49$

-> $210 + 5 - 49 = 166$

Not equal to R.H.S so it's incorrect.

D). $35 \div 7 \times 5 + 42 - 49 = 18$

-> On solving the L.H.S we get;

-> $5 \times 5 + 42 - 49$

-> $25 + 42 - 49 = 18$

Which is equal to R.H.S so it's correct.

Hence, option D is the correct answer.

27. B

Sol. The pattern is as follows; for consonants the place value of the letter is the coded number whereas for vowels the place value of the opposite letter is the coded number as shown below:

H	O	U	S	E
L	F			V
8	12	6	19	22
I	N	K		
R				
18	14	11		

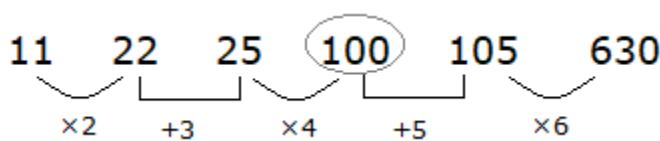
Therefore,

M	I	S	T	A	K	E
R			Z		V	
13	18	19	20	26	11	22

Hence, option B is the correct answer.

28. D

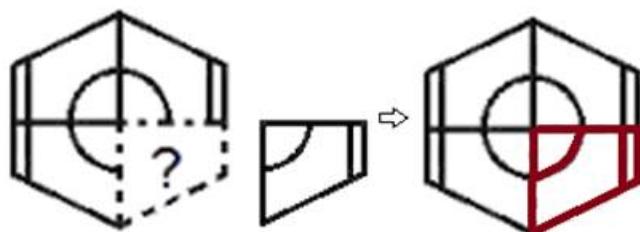
Sol. The pattern is as follows;



Hence, option D is the correct answer.

29. B

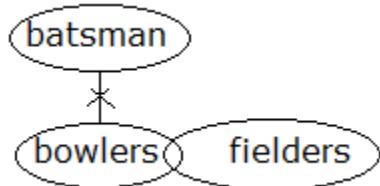
Sol. The complete pattern of the figure will be as shown below;



Hence, option B is the correct answer.

30. C

Sol. The least possible Venn-diagram will be:



Conclusions:

- I. No fielder is a batsman – It is not a definite case, hence false.
- II. No batsman is a bowler - It is a definite case, hence true.

Thus, only conclusion II follows.

Hence, option C is the correct answer.

31. B

Sol. The pattern is as follows:

$$25 \times 3 = 75; 24 \times 2 = 48$$

$$\text{Now, } 75 + 48 = 123$$

Now, subtract from the number obtain by subtracting 1st number by 2nd number so, $25 - 24 = 1$

$$\rightarrow 123 - 1 = 122$$

Similarly,

$$31 \times 3 = 93; 27 \times 2 = 54$$

$$\text{Now, } 93 + 54 = 147$$

Now, subtract from the number obtain by subtracting 1st number by 2nd number so, $31 - 27 =$

$$4$$

$$\rightarrow 147 - 4 = 143$$

Therefore,

$$35 \times 3 = 105; 29 \times 2 = 58$$

$$\text{Now, } 105 + 58 = 163$$

Now, subtract from the number obtain by subtracting 1st number by 2nd number so, $35 - 29 = 6$

$$\rightarrow 163 - 6 = 157$$

Hence, option B is the correct answer.

32. D

Sol. When the given sheet of paper is unfolded it will appear as shown below:



Hence, option D is the correct answer.

33. C

Sol. Given;

$$\begin{array}{c} V \\ \wedge \\ T > H > K > L \\ \vee \\ Z = B \end{array}$$

It is clear that K is greater than Z, and Z is equal to B. That means K should also be greater than B. Thus, K cannot be equal to B.

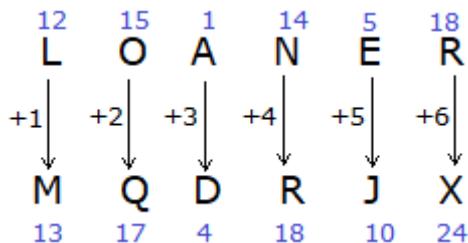
Hence, option C is the correct answer.

34. C

Sol. The pattern is as follows:

³ C	¹ A	¹⁴ N	²² V	¹ A	¹⁹ S
+1	+2	+3	+4	+5	+6
D 4	C 3	Q 17	Z 26	F 6	Y 25

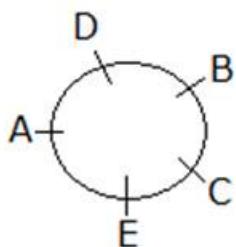
Similarly,



Hence, option C is the correct answer.

35. A

Sol. As per the given information the sitting position of the salesman around the table will be;

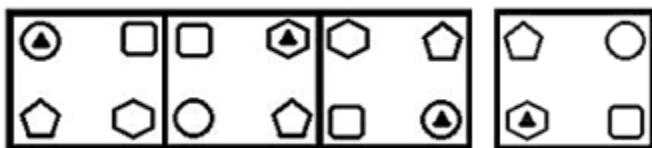


Clearly, 'B' is sitting second place to the right of 'E'.

Hence, option A is the correct answer.

36. C

Sol. Logic: The four figures the circle, cube, hexagon and the pentagon is moving in anticlockwise direction starting from the circle in the 1st figure. Also, the shaded triangle is moving in clockwise direction inside each of the figure. Thus, the next figure should be as given in option (C) shown below;



Hence, option C is the correct answer.

37. C

Sol. The pattern is as follows:

$$6^2 + 7^2 = 36 + 49 = 85$$

Similarly,

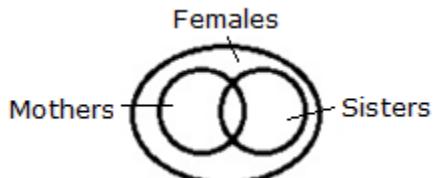
$$12^2 + 13^2 = 144 + 169 = 313$$

Hence, option C is the correct answer.

38. B

Sol. The given classes are best represented by the Venn diagram given in option (B) as shown below:

Some sisters are mothers and all mothers and sisters are females.



Hence, option B is the correct answer.

39. C

Sol. The pattern is as follows: the coded number is the square of the digit obtained by just counting the number of letters in the respective word for example:

FOSTER – 6 letters

The square of 6 = 36

Thus,

DANCE – 5 letters

The square of 5 – 25

Therefore,

ORCHARD – 7 letters

The square of 7 = 49

Hence, option C is the correct answer.

40. B

Sol. Rupee is a currency (a medium of exchange for goods and services). Similarly, Summer is a season (is a division of the year based on changes in ecology, weather, and the number of daylight hours in a given region).

Hence, option B is the correct answer.

41. C

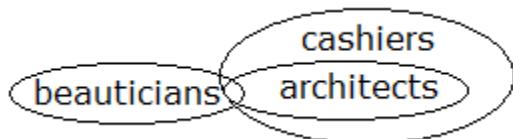
Sol. The pattern is as follows;

	F	U	V
+3	I	X	W
+3	L	A	X
+3	O	D	Y
+3	R	G	Z

Hence, option C is the correct answer.

42. C

Sol. The least possible Venn-diagram as per the statements will be:



Conclusions:

- I. Some architects are beauticians – It is a definite case, hence true.
- II. Some cashiers are architects – It is a definite case, hence true.
- III. Some cashiers are beauticians – It is a definite case, hence true.

So, all conclusions follow.

Hence, option C is the correct answer.

43. D

Sol. The pattern is as follow:

18	15	13	1	14
R	O	M	A	N
+7	+7	+7	+7	+7
Y	V	T	H	U

25 22 20 8 21

Similarly,

20	8	9	14	7
T	H	I	N	G
+7	+7	+7	+7	+7
A	O	P	U	N

27 15 16 21 14

Hence, option D is the correct answer.

44. C

Sol. Here the relation between the word pair is that both the words are synonyms. Thus, 'Pleasurable' and 'Delightful' both are synonym words. Likewise, 'Excellent' and 'Bonzer' both are synonym words.

Hence, option C is the correct answer.

45. A

Sol. The pattern is as follows;

C - (+1) - D
L - (+1) - M
A - (+1) - B
S - (+1) - T
S - (+1) - T

Now reverse the order to obtain the code;

CLASS -> TTBMD

Similarly,

D - (+1) - E
I - (+1) - J
N - (+1) - O
O - (+1) - P
S - (+1) - T
O - (+1) - P
U - (+1) - V
R - (+1) - S

Now reverse the order to obtain the code;

DINOSOUR -> SVPTPOJE

Hence, option A is the correct answer.

46. C

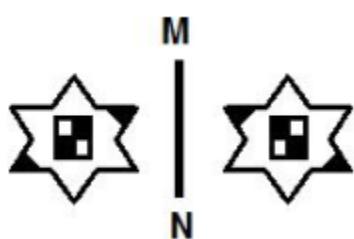
Sol. The pattern is as follows;

50	86	111	127	136	140	141
+36	+25	+16	+9	+4	+1	
6^2	5^2	4^2	3^2	2^2	1^2	

Hence, option C is the correct answer.

47. A

Sol. The correct mirror image will be as shown below:



Hence, option A is the correct answer.

48. A

Sol. As per the given information;

A	B	C	D
+	\times	-	\div

After we put the given signs replacing the letters the equation becomes:

$$\rightarrow 5 \times 5 \times 3 + 14 - (28 \div 7) + 5 \times (13 - 9)$$

$$\rightarrow 75 + 14 - 4 + 5 \times 4$$

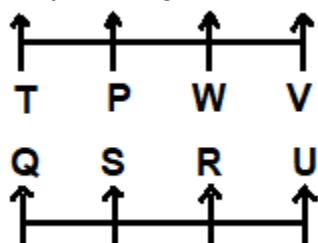
$$\rightarrow 75 + 10 + 20$$

$$\rightarrow 85 + 20 = 105$$

Hence, option A is the correct answer.

49. B

Sol. As per the given information; the arrangement will be-

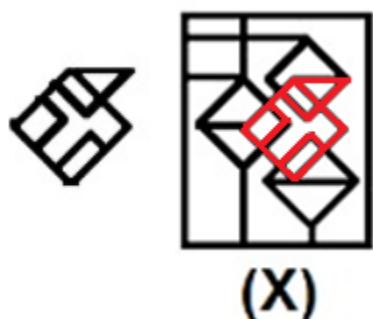


It is clear that W is sitting between P and V.

Hence, option B is the correct answer.

50. B

Sol. In the given figure the figure in option (B) is perfectly embedded as shown below:



Hence, option B is the correct answer.

51. C

Sol. The total number of workers whose daily wages are less than ₹550 = 20 + 25 + 30 = 75

The total number of workers whose daily wages are ₹550 and above = $25 + 40 + 60 = 125$

$$\text{Therefore, required percentage} = \frac{(125 - 75)}{125} \times 100 = \frac{50}{125} \times 100 = 40\%$$

Hence, option C is correct.

52. A

Sol. The total number of workers whose daily wages are less than ₹500 = $20 + 25 = 45$

The total number of workers whose daily wages are ₹600 and above = $40 + 60 = 100$

Therefore, required ratio of the total number of workers whose daily wages are less than ₹500 to the total number of workers whose daily wages are ₹600 and above = $45 : 100 = 9 : 20$

Hence, option A is correct.

53. D

Sol.

$$\text{The percentage of workers whose daily wages are less than 500} = \frac{(25+20)}{200} \times 100 = \frac{45}{200} \times 100 = 22.5\%$$

$$\text{The percentage of workers whose daily wages are ₹600 and above} = \frac{(40+60)}{200} \times 100 = \frac{100}{200} \times 100 = 50\%$$

Therefore, required difference between the percentage of workers whose daily wages are less than 500 and the percentage of workers whose daily wages are ₹600 and above = $50\% - 22.5\% = 27.5\%$

Hence, option D is correct.

54. A

Sol. Let the two numbers are $7x$ and $9x$

According to question,

$$\Rightarrow (7x)^2 + (9x)^2 = 8320$$

$$\Rightarrow 49x^2 + 81x^2 = 8320$$

$$\Rightarrow 130x^2 = 8320$$

$$\Rightarrow x^2 = 64$$

$$\Rightarrow x = 8$$

Therefore, required sum of the numbers = $7x + 9x = 16x = 16 \times 8 = 128$

Hence, option A is correct.

55. A

Sol. Let the second number be x

$$\text{First number} = \frac{3}{4} \times (x) = \frac{3x}{4}$$

According to question,

$$\Rightarrow \frac{\left(\frac{1}{x} + \frac{1}{\left(\frac{3x}{4} \right)} \right)}{2} = \frac{7}{72}$$

$$\Rightarrow \frac{\left(\frac{1}{x} + \frac{4}{3x} \right)}{2} = \frac{7}{72}$$

$$\Rightarrow \frac{\left(\frac{3+4}{3x} \right)}{2} = \frac{7}{72}$$

$$\Rightarrow \frac{7}{(3x) \times 2} = \frac{7}{72}$$

$$\Rightarrow x = \frac{7 \times 72}{7 \times 3 \times 2}$$

$$\Rightarrow x = 12$$

$$(x) + \frac{3x}{4} = \frac{7x}{4} = \frac{7 \times 12}{4}$$

Therefore, the sum of two numbers = $\frac{7x}{4} = \frac{7 \times 12}{4} = 21$

Hence, option A is correct.

56. A

Sol. We know that:

$$\frac{(100 \pm \text{profit / loss}\%)}{100}$$

$$\text{Selling price} = \text{cost price} \times \frac{(100 \pm \text{profit / loss}\%)}{100}$$

Let the cost price of the article be x Rs.

$$\frac{(100 - \text{loss}\%)}{100}$$

$$\text{Selling price} = \text{cost price} \times \frac{(100 - \text{loss}\%)}{100}$$

$$= (x) \times \frac{(100 - 18)}{100}$$

$$= \frac{82x}{100}$$

$$= \frac{41x}{50}$$

According to question,

$$\Rightarrow \frac{41x}{50} + 2475 = (x) \times \frac{(100 + 12)}{100}$$

$$\Rightarrow \frac{41x}{50} + 2475 = \frac{112x}{100}$$

$$\Rightarrow \frac{56x}{100} - \frac{41x}{50} = 2475$$

$$\Rightarrow \frac{15x}{50} = 2475$$

$$\Rightarrow x = \frac{2475 \times 50}{15}$$

$$\Rightarrow x = 8250$$

Therefore, the cost price of the article is 8250 Rs.

Hence, option A is correct.

57. D

Sol. The number which is divisible by 18, 32 and 48 = LCM of 18, 32 and 48 = 288

Therefore, required smallest four-digit number which is exactly divisible by 18, 32 and 48 =
 $288 \times 4 = 1152$

Hence, option D is correct.

58. D

Sol.

$$\text{Number of marbles in Box A} = \frac{3}{(3+5+7)} \times 75 = \frac{3}{15} \times 75 = 15$$

$$\text{Number of marbles in Box B} = \frac{5}{(3+5+7)} \times 75 = \frac{5}{15} \times 75 = 25$$

$$\text{Number of marbles in Box C} = \frac{7}{(3+5+7)} \times 75 = \frac{7}{15} \times 75 = 35$$

If 3 marbles are transferred from B to A then,

$$\text{Number of marbles in Box B} = 25 - 3 = 22$$

$$\text{Number of marble in Box A} = 15 + 3 = 18$$

Now,

If 5 marbles are transferred from C to B then

$$\text{Number of marbles in Box C} = 35 - 5 = 30$$

$$\text{Number of marble in Box B} = 22 + 5 = 27$$

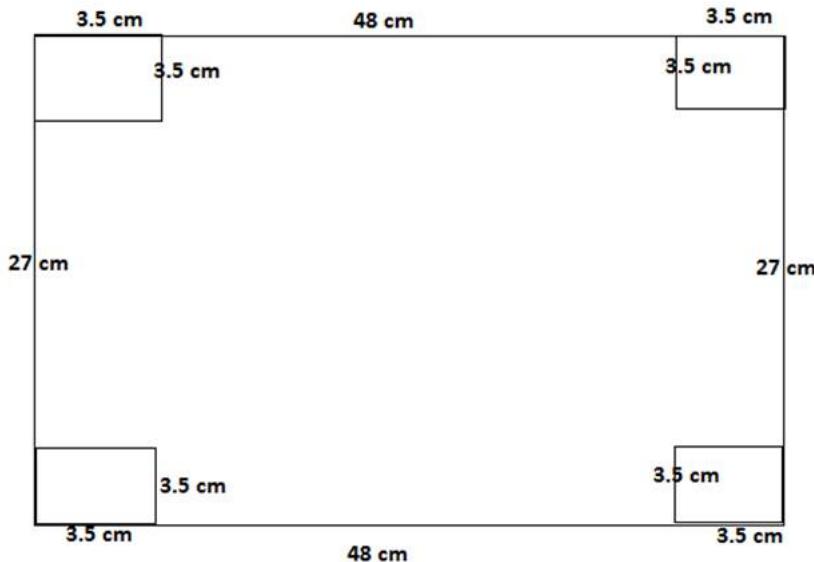
$$\text{Number of marbles in Box A} = 18$$

Therefore, the new ratio of marbles = 18 : 27 : 30 = 6 : 9 : 10

Hence, option D is correct.

59. C

Sol.



$$\text{Length of the Box} = 48 - 2 \times 3.5 = 48 - 7 = 41 \text{ cm}$$

$$\text{Breadth of the Box} = 27 - 2 \times 3.5 = 27 - 7 = 20 \text{ cm}$$

$$\text{Height of the Box} = 3.5 \text{ cm}$$

$$\text{Volume of the Box} = \text{length} \times \text{breadth} \times \text{height}$$

$$= 41 \times 20 \times 3.5$$

$$= 2870 \text{ cm}^3$$

Therefore, the volume of the Box = 2870 cm^3

Hence, option C is correct.

60. C

Sol. Given:

Ratio between the first and second number = $7 : 11$

Ratio between the second and third number = $11 : 15$

Ratio of first, second and third number = $7 : 11 : 15$

$$\text{The value of first number} = \frac{7}{(7+11+15)} \times 396 = \frac{7}{33} \times 396 = 84$$

$$\text{The value of third number} = \frac{15}{(7+11+15)} \times 396 = \frac{15}{33} \times 396 = 180$$

Therefore, required difference between the first and third number = $180 - 84 = 96$

Hence, option C is correct.

61. C

Sol. Given:

An article was sold at 65% of its marked price, so discount percentage = $100 - 65 = 35\%$

We know that:

$$\frac{\text{Cost price}}{\text{marked price}} = \frac{(100 - \text{discount}\%)}{(100 + \text{profit}\%)}$$

$$\Rightarrow \frac{\text{Cost price}}{\text{marked price}} = \frac{(100 - 35)}{(100 + 30)}$$

$$\Rightarrow \frac{\text{Cost price}}{\text{marked price}} = \frac{65}{130}$$

$$\Rightarrow \text{Cost price : marked price} = 1 : 2$$

Therefore, required ratio of marked price : cost price = $2 : 1$

Hence, option C is correct.

62. D

Sol. We know that:

Area of the base of a cylinder = πr^2

Curved surface area of a cylinder = $2\pi rh$

Now,

$$\Rightarrow \frac{\pi r^2}{2\pi rh} = \frac{346.5}{990}$$

$$\Rightarrow \frac{r}{2h} = \frac{7}{20}$$

$$\Rightarrow r = \frac{7h}{10}$$

Now,

$$\text{Curved surface area of a cylinder} = 2\pi rh$$

$$\Rightarrow 990 = 2 \times \frac{22}{7} \times \frac{7h}{10} \times h$$

$$\Rightarrow 990 = \frac{22h^2}{5}$$

$$\Rightarrow h^2 = \frac{990 \times 5}{22}$$

$$\Rightarrow h^2 = 225$$

$$\Rightarrow h = 15 \text{ cm}$$

Therefore, the height of the cylinder = 15 cm

Hence, option D is correct.

63. C

Sol. Given:

$$(5+4^2) \div 3 \text{ of } x - 2 \times 4 = -7$$

$$\Rightarrow (5+16) \div 3x - 2 \times 4 = -7$$

$$\Rightarrow \frac{21}{3x} = -7 + 8$$

$$\Rightarrow \frac{21}{3x} = 1$$

$$\Rightarrow x = 7$$

Therefore, the value of x = 7

Hence, option C is correct.

64. C

Sol. We know that:

$$\text{Volume of a sphere} = \frac{4}{3}\pi r^3$$

$$\Rightarrow 65\frac{10}{21} = \frac{4}{3} \times \frac{22}{7} r^3$$

$$\Rightarrow \frac{1375}{21} = \frac{4}{3} \times \frac{22}{7} r^3$$

$$\Rightarrow r^3 = \frac{125}{8}$$

$$\Rightarrow r = \frac{5}{2} \text{ cm}$$

Surface area of a sphere = $4\pi r^2$

$$= 4 \times \frac{22}{7} \times \frac{5}{2} \times \frac{5}{2}$$

$$= \frac{550}{7}$$

$$= 78\frac{4}{7} \text{ cm}^2$$

Therefore, the surface area of sphere = $78\frac{4}{7} \text{ cm}^2$

Hence, option C is correct.

65. B

Sol. Given:

Principal = 8500 Rs.

Amount = 11900 Rs.

Simple interest = $11900 - 8500 = 3400$ Rs.

We know that:

$$\text{Simple interest} = \frac{P \times R \times T}{100}$$

$$\Rightarrow 3400 = \frac{8500 \times R \times 5}{100}$$

$$\Rightarrow R = \frac{3400 \times 100}{8500 \times 5}$$

$$\Rightarrow R = 8\%$$

If the rate of interest increase by 3%, then new rate of interest = $8 + 3 = 11\%$

Now,

$$\text{Simple interest} = \frac{8500 \times 11 \times 5}{100}$$
$$= 4675 \text{ Rs.}$$

Therefore, required amount = $8500 + 4675 = 13175 \text{ Rs.}$

Hence, option B is correct.

66. C

Sol. Let x persons were originally there

According to question,

Total work = Total work

$$\Rightarrow 46 \times (x) = (46 - 16) \times (x + 8)$$

$$\Rightarrow 46x = 30x + 240$$

$$\Rightarrow 46x - 30x = 240$$

$$\Rightarrow 16x = 240$$

$$\Rightarrow x = \frac{240}{16}$$

$$\Rightarrow x = 15$$

Therefore, 15 persons were originally there.

Hence, option C is correct.

67. A

Sol. Let the seven consecutive odd numbers are $(x - 5), (x - 3), (x - 1), (x + 1), (x + 3), (x + 5), (x + 7)$

According to question,

$$\text{Average} = \frac{\text{Sum of the terms}}{\text{number of the terms}}$$

$$\Rightarrow 27 = \frac{(x - 5) + (x - 3) + (x - 1) + (x + 1) + (x + 3) + (x + 5) + (x + 7)}{7}$$

$$\Rightarrow 189 = 7x + 7$$

$$\Rightarrow 7x = 189 - 7$$

$$\Rightarrow x = \frac{182}{7}$$

$$\Rightarrow x = 26$$

$$\text{Last term} = x + 7 = 26 + 7 = 33$$

$$\text{If the last number is removed from the list, then the sum of remaining numbers} = x - 5 + x - 3 + x - 1 + x + 1 + x + 3 + x + 5 = 6x = 6 \times 26 = 156$$

$$\text{Therefore, the average of the remaining numbers} = \frac{156}{6} = 26$$

Hence, option A is correct.

68. D

Sol. We know that:

$$\text{Volume of the cube} = (\text{side})^3$$

$$\text{Let the side of the cubes} = x \text{ cm}$$

$$\begin{aligned}\text{Volume of the solid metallic cuboid} &= \text{length} \times \text{breadth} \times \text{height} \\ &= 36 \times 54 \times 24\end{aligned}$$

According to question,

$$\text{Volume of the solid metallic cuboid} = 8 \times \text{volume of one cube}$$

$$\Rightarrow 36 \times 54 \times 24 = 8 \times (\text{side})^3$$

$$\Rightarrow (\text{side})^3 = \frac{36 \times 54 \times 24}{8}$$

$$\Rightarrow (\text{side})^3 = 5832$$

$$\Rightarrow \text{Side} = 18 \text{ cm}$$

Now,

$$\begin{aligned}\text{Surface area of one cube} &= 6 \times (\text{side})^2 \\ &= 6 \times (18)^2 \\ &= 1944 \text{ cm}^2\end{aligned}$$

Therefore, required sum of the surface area of 8 cubes = $8 \times 1944 = 15552 \text{ cm}^2$

Hence, option D is correct.

69. C

Sol. Let the income of company in 2015 be x Rs.

According to question,

$$\begin{aligned}\Rightarrow (x) \times \frac{(100 + 25)}{100} \times \frac{(100 + 25)}{100} &= 3125000 \\ \Rightarrow (x) \times \frac{125}{100} \times \frac{125}{100} &= 312500 \\ \Rightarrow x = \frac{312500 \times 4 \times 4}{5 \times 5} &\\ \Rightarrow x &= 20,00,000 \text{ Rs.}\end{aligned}$$

Therefore, the income of company in 2015 was 20,00,000 Rs.

Hence, option C is correct.

70. C

Sol. Let the marked price of article be x Rs.

According to question,

$$\begin{aligned}\Rightarrow (x) \times \frac{(100 - 14.5)}{100} - (x) \times \frac{(100 - 22)}{100} &= 285 \\ \Rightarrow \frac{85.5x}{100} - \frac{78x}{100} &= 285 \\ \Rightarrow \frac{7.5x}{100} &= 285\end{aligned}$$

$$\Rightarrow x = \frac{28500}{7.5}$$

$$\Rightarrow x = 3800 \text{ Rs.}$$

Therefore, the marked price of the article is 3800 Rs.

Hence, option C is correct.

71. B

Sol. We know that:

$$\text{Speed} = \frac{\text{distance}}{\text{time}}$$

$$\text{Speed of the motorcycle} = \frac{280}{8} = 45 \text{ km/hr}$$

$$\text{Speed of the bicycle} = 35 \times \frac{3}{14} = 7.5 \text{ km/hr}$$

Therefore, distance covered by a bicycle in 2 hours = $2 \times 7.5 = 15 \text{ km}$

Hence, option B is correct.

72. B

Sol. Let the total work = LCM of (15, 25) = 75 units

$$\text{Work done by A in one day} = \frac{75}{15} = 5 \text{ units}$$

$$\text{Work done by B in one day} = \frac{75}{25} = 3 \text{ units}$$

$$\text{Work done by A and B in 5 days} = 5 \times (5 + 3) = 5 \times 8 = 40 \text{ units}$$

$$\text{Remaining work} = 75 - 40 = 35 \text{ units}$$

Now, B was replaced by C and the remaining work was completed by A and C in 4 days

$$\text{Work done by A in next 4 days} = 4 \times 5 = 20 \text{ units}$$

$$\text{Remaining work which was done by C in 4 days} = 35 - 20 = 15 \text{ units}$$

$$\text{Work done by C in one day} = \frac{15}{4} \text{ units}$$

$$\frac{75}{\left(\frac{15}{4}\right)} = \frac{75 \times 4}{15} = 20 \text{ days}$$

Therefore, required time taken by C to complete the work alone =
Hence, option B is correct.

73. A

Sol. Let the rate of interest be R%

We know that:

$$\text{Amount} = P \left(1 + \frac{R}{100}\right)^t$$

$$\Rightarrow 5547 = 4800 \left(1 + \frac{R}{100}\right)^2$$

$$\Rightarrow \frac{5547}{4800} = \left(1 + \frac{R}{100}\right)^2$$

$$\Rightarrow \frac{1849}{1600} = \left(1 + \frac{R}{100}\right)^2$$

$$\Rightarrow \frac{43}{40} = 1 + \frac{R}{100}$$

$$\Rightarrow \frac{R}{100} = \frac{43}{40} - 1$$

$$\Rightarrow \frac{R}{100} = \frac{3}{40}$$

$$\Rightarrow R = \frac{300}{40}$$

$$\Rightarrow R = 7.5\%$$

Therefore, the rate of interest is 7.5%

Hence, option A is correct.

74. B

Sol. We know that:

$$\text{Mean} = \frac{\text{Sum of the terms}}{\text{number of the terms}}$$

$$\begin{aligned}\text{Sum of all 25 numbers} &= 25 \times 14 \\ &= 350\end{aligned}$$

$$\text{If 3 is added to every number, then sum of all 25 numbers} = 350 + 25 \times 3 = 350 + 75 = 425$$

$$\text{Therefore, the new mean} = \frac{425}{25} = 17$$

Hence, option B is correct.

75. C

Sol. Let his usual speed = 5 units

$$\text{If he walks at } \frac{3}{5} \text{ of his usual speed, then his speed} = \frac{3}{5} \times 5 = 3 \text{ units}$$

We know that:

$$\text{Speed} \propto \frac{1}{\text{time}}$$



Therefore, required time taken by him to cover the same distance at his usual speed = $\frac{100}{2} \times 3$

$$\begin{aligned}&= 150 \text{ min} = 2 \text{ hr } 30 \text{ min} = \frac{5}{2} \text{ hours}\end{aligned}$$

Hence, option C is correct.

76. B

Sol. • 'Povada dance' is a performing art from the state of **Maharashtra**.
• It is also known as "**Bhada**".

- This dance form describes the events in the life of the great Maratha ruler, Shri Chhatrapati Shivaji Maharaj.
- Povada is also a genre of poetry popular in **Uttarakhand**.
- It is popular in **Kumaun** as well as Garhwal regions of the state.

77. C

Sol. • **Bhiti Chitra** (fresco painting) is a popular art form of **Haryana**.

- A fresco is a type of wall painting.
- The word “fresco” means “fresh” in Italian.
- It is a technique of mural painting executed upon freshly laid (“wet”) lime plaster.
- **Manohar Lal Khattar** is the 10th and current chief minister of Haryana.
- **Bandaru Dattatreya** is the current governor of Haryana.

78. D

Sol. • The growing voice box in boys can be seen as a protruding part of the throat called **Adam's apple**.

- The Adam's apple is made up of the thyroid cartilage.
- The Adam's apple is also known as the laryngeal prominenc.

79. C

Sol. • **Litmus Solution** is a purple dye, which is extracted from **lichen**, a plant belonging to the division **Thallophyta**.

- Litmus can be found in different species of lichens.
- It is commonly used as an indicator.
- It is used to test materials for acidity.
- Litmus was used for the first time in about 1300 by **Spanish physician Arnaldus de Villa Nova**.

80. B

Sol. • The **stigma** is one portion of the female part of a flower.

- It is the top part of the pistil, followed by style and then ovary.
- It is the sticky surface at the top of the pistil.
- It traps and holds the pollen.

- It can be found in the center of a flower.
- Stigmas are large and can easily be seen in some flowers, while in other flowers it is small and difficult to identify.

81. A

Sol. • **Imphal Valley** is located in the Indian state of **Manipur**.

- It is an irregular almost oval shaped canyon.
- The water in the Imphal valley is fetched from several rivers that flows via the valley, such as Imphal River, Iril River, Thoubal River, Khuga River and Sekmai river.
- It is an important centre of Kauna craft.

82. C

Sol. • **Aluminium smelting** is the second most important metallurgical industry in India.

- There are 8 aluminium smelting plants in the country located in Odisha (formerly Orissa) (Nalco and Balco), West Bengal, Kerala, Uttar Pradesh, Chhattisgarh, Maharashtra and Tamil Nadu.
- The iron and steel industry is the most significant industries in India.
- India is the third-largest crude steel producer in the world.

83. B

Sol. • **Goa** came under Indian state after the armed action code-named '**Operation Vijay**' by the **Indian Armed Forces**.

- The Portuguese ruled Goa for about 450 years.
- It was handed over to the Indian administration in **December 1961** after Operation Vijay conducted by the Indian Armed Forces.
- To celebrate the independence of Goa, every year 19 December is celebrated as "Goa Liberation Day".

84. A

Sol. • **Professor Balram Bhargava** is the current Director General of Indian Council of Medical Research (ICMR).

- He is also the Secretary, Department of Health Research, (Ministry of Health & Family Welfare), Government of India.

- The Indian Council of Medical Research (ICMR) is the apex body in India for the formulation, coordination and promotion of biomedical research.
- It is one of the oldest and largest medical research bodies in the world.
- It was set-up as the Indian Research Fund Association (IRFA) in 1911.
- It was redesignated the Indian Council of Medical Research (ICMR) in 1949.
- It is headquartered in New Delhi.

85. C

Sol. • **Anupam Kher** is the author of the book '**The Best Thing About You is You**'.

- It was published by the Penguin Group in 2014.
- Anupam Kher is the former Chairman of Film and Television Institute of India.
- He is a recipient of two National Film Awards and eight Filmfare Awards.
- He won the Filmfare Award for Best Actor for his performance in Saaransh (1984).

86. A

Sol. • **Bhanu Athaiya** was the first Indian to win an Oscar.

- She won the Oscars for Best Costume Design for the film Gandhi in the year 1983.
- She was the only woman member of the Bombay Progressive Artists' Group.

87. B

Sol. • In June 2020, the **World silver-medallist Amit Panghal and the Vikas Krishan** were

- nominated for the Rajiv Gandhi Khel Ratna award by the Boxing Federation of India.
- On 6 August 2021, the Government of India changed the name of Rajiv Gandhi Khel Ratna Award to Major Dhyan Chand Khel Ratna Award.
 - Major Dhyan Chand Khel Ratna Award is the highest sporting honour of India.
 - It is awarded annually by the Ministry of Youth Affairs and Sports.
 - As of 2020, the award comprises a medallion, a certificate, and a cash prize of ₹25 lakh.
 - The first recipient of the award was Chess Grandmaster Viswanathan Anand, who was honoured for the performance in the year 1991–92.

88. B

Sol. • **Kandla Port** is known as **tidal port in India**.

- It is located on the **Gulf of Kutch, Gujarat**.

- It was constructed in **1950**.
- It is the largest port of India by volume of cargo handled.
- Kandla Port was renamed as Deendayal Port Trust under the India port act of 1908 on 25th of September, 2017.
- The Port of Kandla Special Economic Zone (KASEZ) was the first special economic zone to be established in India and in Asia.
- It was established in 1965.

89. D

Sol.

- **The Consumer Protection Act, 2019 came into force on 20th July 2020.**
- It repeals and replaces the Consumer Protection Act, 1986.
- The Consumer Protection Act has made it mandatory for every e-commerce entity to display the country of origin.
- The Act aims at protecting and strengthening the rights of the consumers.

90. B

Sol.

- **The Mandal Commission recommended 27% reservation for OBC candidates in all levels of government services.**
- The Mandal Commission is also known as Socially and Educationally Backward Classes Commission (SEBC).
- It was headed by Bindheshwari Prasad Mandal.
- It was established in 1979 by the then Janata Party government.
- The working area of this commission was to identify the socially and economically backward.

91. C

Sol.

- The main mineral constituents of the continental mass are **silica and alumina**.
- It is thus called sial (si-silica and al-alumina)
- Hence, option C is the correct answer.

92. D

Sol.

- The most electrically conductive element is **silver**, followed by copper and gold.
- Silver also has the highest thermal conductivity of any element and the highest light reflectance.

- Silver is a chemical element with the symbol Ag and atomic number 47.

93. D

Sol. • The "**Treaty of Salbai**" was signed on **17 May 1782** by representatives of the Maratha Empire and the British East India Company.

- It was signed between Warren Hastings and Mahadaji Shinde.
- The treaty ended the First Anglo-Maratha War, restored the status quo, and established peace between the two parties for 20 years.

94. B

Sol. • On 7 January 2019, Government of India approved a **10% reservation** in government jobs and educational institutions for the **Economically Weaker Section (EWS)** in the General category.

- This 10% reservation is available for those general category families whose annual income is less than Rs.8 lakh.
- The 103rd Constitutional Amendment Act is related to this reservation provision.
- This Amendment Act was come into effect on **14 January 2019**.

95. B

Sol. • **The ovum is one of the largest cells in the human body.**

- Smallest cell in the human body is male gametes (sperm).

96. D

Sol. • The sharing of waters of the Kaveri River has been the source of a serious conflict between the two Indian states of **Tamil Nadu and Karnataka**.

- The conflict originated with two agreements between the Madras Presidency and the Kingdom of Mysore in 1892 and 1924.
- The Kaveri river rises at Talakaveri in the Brahmagiri range in the Western Ghats, Kodagu district of the state of Karnataka.
- The Kaveri is also one of the seven holy rivers of India.

97. D

Sol. • In **1977** the IBM and Coca-Cola companies closed their operations for not being able to comply with the Foreign Exchange Regulation Act.

- On January 1, 1974, the FERA (Foreign Exchange Regulation Act) came into force in India.
- According to this act, foreign investors could not own more than 40% in Indian enterprises.
- This act was repealed in 1998 by the government of Atal Bihari Vajpayee.
- This act was replaced by the Foreign Exchange Management Act, which liberalised foreign exchange controls and restrictions on foreign investment.

98. A

Sol. • **ATK Football Club won the Indian Super League 2019-2020.**

- In the final, ATK defeated Chennaiyin Football Club by 3-1.
- The final match was held at the Fatorda Stadium in Goa on March 14, 2020.
- With this feat, ATK has become the first club to win three Indian Super League (ISL) titles.
- The 2019–20 Indian Super League season was the sixth season of the Indian Super League.
- It is one of the top Indian professional football leagues.

99. A

Sol. • **Kittur Chennamma** (the Queen of Kittur) was one of the first Indian rulers to lead an armed rebellion against the British East India Company in 1824, against the implementation of the Doctrine of Lapse.

- Since 1824 'Kittur Utsava' has been organised every year in the month of October to celebrate the heroic rebellion of Rani Kittur Chennamma in Karnataka.
- Kittur Chennamma was born on October 23, 1778, in Kakati, a small village in the present Belagavi District of Karnataka.
- The Doctrine of Lapse was an annexation policy.
- It was introduced by Lord Dalhousie, governor-general of India (1848–56).
- Satara (Maharashtra) was the first princely state where the Doctrine of lapse applied.

100. A

Sol. • **Dhondo Keshav Karve** founded an educational institution, Hindu Widows Home, in Poona in the year **1896**.

- Dhondo Keshav Karve is popularly known as Maharshi Karve.
- He advocated widow remarriage and he himself married a widow.
- He founded the first women's university in India - SNDT Women's University (Mumbai).

- He was awarded the Bharat Ratna, highest civilian award of India, in 1958.

Mock Test Solutions in Hindi

Questions

1. Select the most appropriate word that means the same as the group of words given.

The point at which the earth and the sky appear to meet

- | | |
|------------|------------|
| A. Crust | B. Horizon |
| C. Rainbow | D. Ocean |

2. Select the most appropriate word to fill in the blank.

There _____ a big park in front of our house.

3. Select the most appropriate word to fill in the blank.

To practise yoga, I usually wake up when the sun _____.

- A. covers
 - B. disappears
 - C. rises
 - D. sets

4. Select the most appropriate option to substitute the underlined segment in the given sentence.

I have online science classes for Wednesdays.

- A. on Wednesdays
 - B. from Wednesdays
 - C. in Wednesdays
 - D. at Wednesdays

5. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

The details of the menu for today's party has been worked out.

6. Select the most appropriate option to substitute the underlined segment in the given sentence.

If the town had been built at a lower altitude, it will be a lot warmer.

- A. Technology
- B. Technicality
- C. Discovery
- D. Engineering

14. Select the most appropriate word to fill in the blank.

I _____ the film we saw yesterday.

- A. didn't like
- B. wasn't like
- C. doesn't like
- D. haven't liked

15. Select the most appropriate ANTONYM of the given word.

CONFIRM

- A. Open
- B. Agree
- C. Reject
- D. Accept

16. Select the most appropriate meaning of the given idiom/phrase.

Break in

- A. Enter a building illegally
- B. End a relationship
- C. Be unable to control (one's) feelings
- D. Begin to do something) suddenly

17. Select the correctly spelt word.

- A. Safficiente
- B. Sephient
- C. Suffusiance
- D. Sufficient

18. The given sentence contains a grammatical error. Identify the segment that contains the error.

How many does the cricket bat cost?

- A. the cricket bat
- B. does
- C. How many
- D. cost

19. Select the most appropriate synonym of the given word.

EVIDENT

- A. Clear
- B. Aimless
- C. Complex
- D. Confusing

20. Select the most appropriate synonym of the given word.

CALM

A. Excited

B. Quiet

C. Disturbed

D. Claim

21. Direction: In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

Many reports have said that, in the context (###Q1###) Covid-19 lockdown, schooling and college education are likely to be online. The reports have (###Q2###) pointed out that this change will deny the students the experience of studying in a physical (###Q3###). This is because they can only interact with their teachers; they will miss the (###Q4###) to get to know their classmates and make real friends. Thus, the current situation has (###Q5###) many boys and girls and they are waiting for things to get back to normal.

Select the most appropriate option to fill in blank no. 1

- | | |
|---------|-------|
| A. of | B. at |
| C. from | D. in |

22. Select the most appropriate option to fill in blank no. 2

- | | |
|-----------|-------------|
| A. also | B. addition |
| C. though | D. but |

23. Select the most appropriate option to fill in blank no. 3

- | | |
|--------------|--------------|
| A. condition | B. area |
| C. campus | D. situation |

24. Select the most appropriate option to fill in blank no. 4

- | | |
|------------|----------------|
| A. reward | B. opportunity |
| C. conduct | D. award |

25. Select the most appropriate option to fill in blank no. 5

- | | |
|----------------|---------------|
| A. supported | B. encouraged |
| C. discouraged | D. upset |

26. दिए गए समीकरण को सही बनाने के लिए किन दो संख्याओं को आपस में बदला जाना चाहिए?

$$42 \div 7 \times 5 + 35 - 49 = 18$$

- | | |
|-------------|-------------|
| A. 42 और 49 | B. 35 और 49 |
| C. 5 और 35 | D. 42 और 35 |



- The figure shows four options labeled A, B, C, and D, each illustrating a different way to fold a rectangular piece of paper to form a box. Option A shows a top-down view of a rectangle with a small square cutout in the upper-left corner. Options B, C, and D show side views of the resulting box, with curved lines indicating the fold lines.

30. दो कथनों के बाद दो निष्कर्ष। और ॥ दिए गए हैं। दिए गए कथनों को सत्य मानते हुए, भले ही वे सामान्यतः ज्ञात तथ्यों से भिन्न प्रतीत होते हों, निर्णय लें कि कौन सा/से निष्कर्ष दिए गए कथनों का तार्किक रूप से अनुसरण करता है/हैं।

कथनः

कोई बाउलर, बैटसमैन नहीं है।

कछ बाउलर, फील्डर हैं।

ନିଷ୍ଠାର୍ଥ

I. कोई फील्डर, बैट्समैन नहीं है।

II. कोई बैट्समैन, बाउलर नहीं है।

A. दोनों निष्कर्ष। और || अनुसरण करते हैं।

C. केवल निष्कर्ष। अनुसरण करता है।

B. केवल निष्कर्ष। अनुसरण करता है।

D. न तो निष्कर्ष। न ही। अनुसरण करता है।

31. दिए गए पैटर्न का ध्यानपूर्वक अध्ययन करें और उस संख्या का चयन करें जो उसमें प्रश्नवाचक चिन्ह (?) को प्रतिस्थापित कर सकती है।

25	24	122
31	27	143
35	29	?

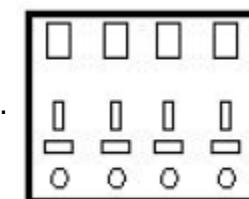
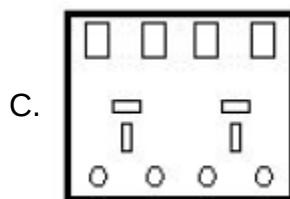
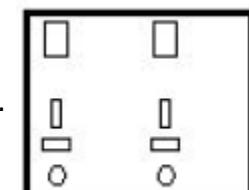
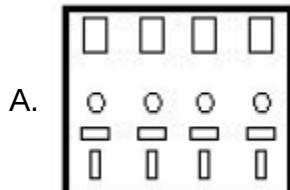
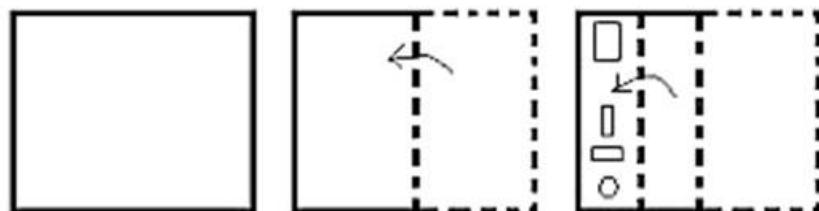
A. 197

B. 157

C. 114

D. 222

32. एक कागज को नीचे दर्शाए अनुसार मोड़ा और काटा जाता है। कागज खोले जाने पर कैसा दिखाई देगा?



33. यदि $T > H > K > L$ और $V < K > Z = B$ हैं, तो निम्न में से कौन सा निष्कर्ष सही नहीं है?

A. $T > L$

B. $V < T$

C. $K = B$

D. $H > Z$

34. उस विकल्प का चयन करें जो तीसरे अक्षर-समूह से उसी प्रकार संबंधित है जिस प्रकार दूसरा अक्षर-समूह पहले अक्षर-समूह से संबंधित है।

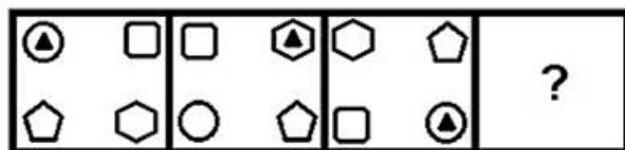
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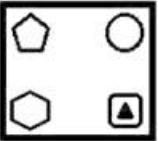
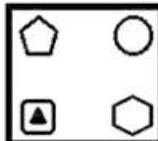
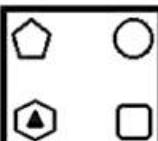
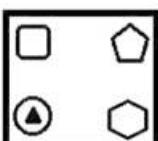
- | | |
|-----------|-----------|
| A. MQDSKX | B. MRDRJY |
| C. MQDRJX | D. MQERJY |

35. पांच सेल्समैन A, B, C, D और E एक वृत्ताकार मेज की चारों ओर एक बैठक में बैठे हैं। A, E की ठीक बाईं ओर है। C, B की ठीक बाईं ओर है। D, B और A के मध्य में बैठा है। E की दाईं ओर दूसरे स्थान पर कौन बैठा है?

- | | |
|------|------|
| A. B | B. C |
| C. D | D. A |

36. उस आकृति का चयन करें जो निम्नलिखित आकृति श्रृंखला में प्रश्नवाचक चिन्ह (?) को प्रतिस्थापित करेगी।



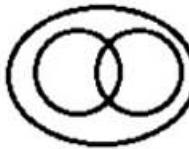
- | | | | |
|----|---|----|--|
| A. |  | B. |  |
| C. |  | D. |  |

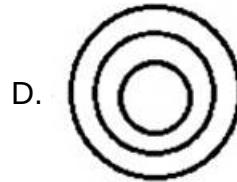
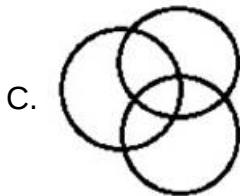
37. उस विकल्प का चयन करें जो तीसरी संख्या से उसी प्रकार संबंधित है जिस प्रकार दूसरी संख्या पहली संख्या से संबंधित है।

- 6 : 85 :: 12 : ?
- | | |
|--------|--------|
| A. 301 | B. 210 |
| C. 313 | D. 346 |

38. उस वेन आरेख का चयन करें जो निम्नलिखित वर्गों के बीच संबंध को सर्वोत्तम रूप से दर्शाता है।

महिलाएं, माताएं, बहनें

- | | | | |
|----|---|----|--|
| A. |  | B. |  |
|----|---|----|--|



रुपया : मुद्रा :: ग्रीष्म : ?

- A. गर्भी B. मौसम
C. आदर्रता D. तापमान

41. निम्नलिखित में से कौन सा अक्षर-समूह दी गई शरंखला में प्रश्नवाचक चिन्ह (?) को प्रतिस्थापित करेगा?

FUV, IXW, LAX, ?, RGZ

- A. PCY
 - B. PCX
 - C. ODY
 - D. OCW

42. दो कथनों के बाद तीन निष्कर्ष I, II और III दिए गए हैं। कथनों को सत्य मानते हुए, भले ही वे सामान्यतः ज्ञात तथ्यों से भिन्न प्रतीत होते हों, निर्णय लें कि कौन सा/से निष्कर्ष दिए गए कथनों का तार्किक रूप से अनुसरण करता है/हैं।

कथनः

कुछ व्यूटिशियन, आर्किटेक्ट हैं।

सभी आर्किटेक्ट, कैशियर हैं।

निष्कर्षः

- I. कुछ आर्किटेक्ट, ब्यूटिशियन हैं।

II. कुछ कैशियर, आर्किटेक्ट हैं।

III. कुछ कैशियर, ब्यूटिशियन हैं।

A. केवल निष्कर्ष | और ||| अनुसरण करते हैं

B. केवल निष्कर्ष || और ||| अनुसरण करते हैं

- C. सभी निष्कर्ष अनुसरण करते हैं D. केवल निष्कर्ष I और II अनुसरण करते हैं

43. एक निश्चित क्रूट भाषा में, 'ROMAN' को 'YVTHU' के रूप में लिखा जाता है। उसी भाषा में 'THING' को किस प्रकार लिखा जाएगा?

A. AORSN B. BCPUN
C. APQUM D. AOPUN

44. उस विकल्प का चयन करें जो तीसरे शब्द से उसी प्रकार संबंधित है जिस प्रकार दूसरा शब्द पहले शब्द से संबंधित है।

Pleasurable : Delightful :: Excellent : ?

- | | |
|------------|------------|
| A. Endowed | B. Comical |
| C. Bonzer | D. Happy |

45. एक निश्चित कूट भाषा में 'CLASS' को 'TTBMD' के रूप में लिखा जाता है। उसी भाषा में 'DINOSOUR' को किस प्रकार लिखा जाएगा?

- | | |
|-------------|-------------|
| A. SVPTPOJE | B. SVPRPJFK |
| C. SWPUPOJE | D. SXOSPOJE |

46. निम्न में से कौन सी संख्या दी गई श्रृंखला में प्रश्नवाचक चिन्ह (?) को प्रतिस्थापित करेगी?

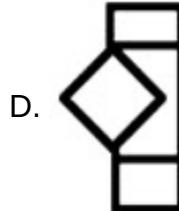
50, 86, ?, 127, 136, 140, 141

47. दी गई आकृति के सही दर्पण प्रतिबिम्ब का चयन करें जब दर्पण को नीचे दर्शाए अनुसार रेखा MN पर स्थापित किया जाता है।





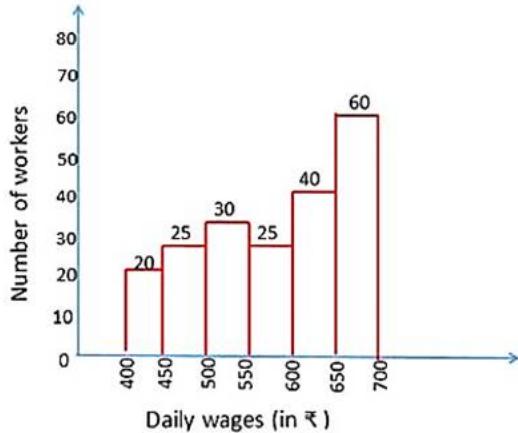
(X)



51. निर्देशः ग्राफ का अध्ययन करें और नीचे दिए गए प्रश्न का उत्तर दें।

दिया गया ग्राफ दैनिक मजदुरी पराप्त करने वाले शरमिकों की संख्या (रुपये में) को दर्शाता है।

श्रमिकों की कुल संख्या = 200



उन शरमिकों की कुल संख्या जिनकी दैनिक मजदूरी 550 रुपये से कम है, उन शरमिकों की कुल संख्या से कितना प्रतिशत कम है जिनकी दैनिक मजदूरी 550 रुपये और उससे अधिक है?

52. उन श्रमिकों की कुल संख्या जिनका दैनिक वेतन 500 रुपये से कम है, का अनुपात उन श्रमिकों की कुल संख्या से है जिनकी दैनिक मजदूरी 600 रुपये और उससे अधिक है, क्या होगा?

A. 45% B. 60%
C. 40% D. 50%

53. उन श्रमिकों के प्रतिशत के बीच का अंतर क्या होगा जिनकी दैनिक मजदूरी 500 से कम है और उन श्रमिकों का प्रतिशत जिनकी दैनिक मजदूरी 600 रुपये और उससे अधिक है?

A. 9:20 B. 12:17
C. 8:15 D. 9:15

54. दो संख्याएँ 7:9 के अनुपात में हैं। यदि उनके वर्गों का योग 8320 है, तो दोनों संख्याओं का योग क्या होगा?

A. 128 B. 228
C. 120 D. 124

55. दो संख्याओं में से पहली संख्या दूसरी संख्या की तीन-चौथाई है। यदि दो संख्याओं के व्युत्कर्षों का औसत $\frac{7}{72}$ है, तो दोनों संख्याओं का योग क्या होगा?

A. 21 B. 22
C. 25 D. 20

C. 7

D. -7

64. यदि एक गोले का आयतन $65 \frac{10}{21}$ सेमी³ है, तो इसका पृष्ठीय क्षेत्रफल क्या होगा?

$$(\pi = \frac{22}{7} \text{ लें})$$

A. $77 \frac{4}{7}$ सेमी²

B. $76 \frac{4}{7}$ सेमी²

C. $78 \frac{4}{7}$ सेमी²

D. $78 \frac{3}{7}$ सेमी²

65. 8,500 की राशि प्रतिवर्ष साधारण ब्याज पर 5 वर्षों में 11,900 रुपये हो जाती है। यदि ब्याज की दर में 3% की वृद्धि की जाती है, तो समान अवधि के लिए बढ़ी हुई राशि क्या होगी?

A. 2,175 रुपये

B. 13,175 रुपये

C. 12,475 रुपये

D. 13,275 रुपये

66. एक निश्चित संख्या में व्यक्ति किसी कार्य को 46 दिनों में पूरा कर सकते हैं। यदि 8 व्यक्ति अधिक होते, तो कार्य 16 दिन कम में समाप्त किया जा सकता था। मूलरूप से कितने व्यक्ति थे?

A. 25

B. 18

C. 15

D. 20

67. सात क्रमागत विषम संख्याओं का औसत 27 है। यदि अंतिम संख्या को सूची से हटा दिया जाए, तो शेष संख्याओं का औसत क्या होगा?

A. 26

B. 25

C. 24

D. 22

68. एक ठोस धात्तिक घनाभ के आयाम 36 सेमी, 54 सेमी और 24 सेमी हैं। इसे पिघलाकर समान आयतन के 8 घनों में ढाला जाता है। इन 8 घनों के पृष्ठीय क्षेत्रफलों (सेमी² में) का योग क्या होगा?

A. 10368

B. 11664

C. 9720

D. 15552

69. एक कंपनी की आय में प्रतिवर्ष 25% की वृद्धि होती है। यदि वर्ष 2017 में इसकी आय 31,25,000 रुपये है, तो 2015 में आय क्या थी?

A. 25,00,000रुपये

B. 22,00,000रुपये

C. 20,00,000रुपये

D. 20,20,000रुपये

70. यदि किसी वस्तु को 22% छूट पर और 14.5% छूट पर बेचने पर उसके विक्रय मूल्य के बीच का अंतर 285 रुपये है, तो वस्तु का अंकित मूल्य क्या होगा?

A. 3,400रुपये

B. 3,500रुपये

C. 3,800रुपये

D. 32,800रुपये

71. एक व्यक्ति ने मोटरसाइकिल पर 8 घंटे में 280 किमी की दूरी तय की। यदि वह मोटरसाइकिल की गति के $\frac{3}{14}$ से साइकिल चलाता है, तो 2 घंटे में साइकिल पर कितनी दूरी तय होगी?

A. 25 किमी B. 15 किमी
C. 24 किमी D. 20 किमी

72. A और B एक कार्य को क्रमशः 15 दिन और 25 दिन में पूरा कर सकते हैं। उन्होंने 5 दिनों के लिए एक साथ कार्य किया जिसके बाद B ने C का स्थान ले लिया और शेष कार्य A और C द्वारा अगले 4 दिनों में पूरा किया गया। C अकेले उसी कार्य को कितने दिनों में पूरा करेगा?

A. 24 दिन B. 20 दिन
C. 15 दिन D. 25 दिन

73. यदि ब्याज को वार्षिक रूप से संयोजित किया जाए तो किस दर पर प्रति वर्ष 4,800 रुपये की राशि दो वर्षों में 5,547 रुपये हो जाएगी?

A. 7.5% B. 7%
C. 8.5% D. 8%

74. 25 संख्याओं का माध्य 14 है। यदि प्रत्येक संख्या में 3 जोड़ दिया जाए, तो नया माध्य क्या होगा?

A. 18 B. 17
C. 15 D. 14

75. अपनी सामान्य गति के $\frac{3}{5}$ से चलते हुए, एक व्यक्ति एक निश्चित दूरी को अपनी सामान्य गति से तय करने में लगने वाले समय से एक घंटे 40 मिनट अधिक में तय करता है। उसके द्वारा अपनी सामान्य गति से समान दूरी तय करने में लिया गया समय क्या होगा?

A. $\frac{7}{2}$ घंटे B. $\frac{3}{2}$ घंटे
C. $\frac{5}{2}$ घंटे D. $\frac{5}{3}$ घंटे

76. 'पोवाड़ा नृत्य' _____ राज्य की एक प्रदर्शन कला है।

A. गुजरात B. महाराष्ट्र
C. राजस्थान D. केरल

77. निम्नलिखित में से किस राज्य में भीति चित्र (फ्रेस्को पेंटिंग) एक लोकप्रिय कला रूप है?

A. कर्नाटक B. नागालैंड
C. हरियाणा D. महाराष्ट्र

78. लड़कों में बढ़ते हुए वॉयस बॉक्स को गले के उभरे हुए हिस्से के रूप में देखा जा सकता है जिसे _____ कहा जाता है।

A. ब्रॉची B. थायराइड उपास्थि
C. श्वासनली D. एडम्स एप्पल

79. लिटमस विलयन एक बैंगनी रंग है, जो लाइकेन, _____ विभाजन से संबंधित पौधे से निकाला जाता है।
A. जिम्नोस्पर्म B. टेरिडोफाइट्स
C. थैलोफाइटा D. ब्रायोफाइटा

80. पुष्प का कौन सा भाग स्त्रीकेसर के शीर्ष पर चिपचिपी सतह है, यह पराग को फंसाकर रखता है?
A. शैली B. वर्तिकाग्र
C. सेपल D. अंडाशय

81. मणिपुर की इम्फाल घाटी _____ शिल्प का एक महत्वपूर्ण केंद्र है।
A. कौना B. गोदना
C. बट्टा D. मिरिजिम्स

82. भारत में दूसरा सबसे महत्वपूर्ण धातुकर्म उद्योग कौन सा है?
A. लोहा B. कॉपर
C. एल्युमिनियम D. जिंक

83. भारतीय सेना ने गोवा को पुर्तगालियों से कब मुक्त कराया और इसे केंद्र शासित प्रदेश घोषित किया?
A. 1967 B. 1961
C. 1952 D. 1969

84. जुलाई 2020 तक, निम्नलिखित में से कौन भारतीय चिकित्सा अनुसंधान परिषद (ICMR) के महानिदेशक थे?
A. प्रो. बलराम भार्गव B. प्रो. सुब्रत सिन्हा
C. डॉ. श्याम एस चौहान D. डॉ. पार्थप्रसाद चट्टोपाध्याय

85. 'द बेस्ट थिंग अबाउट यू इज यू' पुस्तक के लेखक कौन हैं?
A. अमिताभ बच्चन B. अनिल कपूर
C. अनुपम खेर D. अन्नू कपूर

86. निम्नलिखित में से कौन ऑस्कर पुरस्कार पाने वाले पहले भारतीय हैं?
A. भानु अथेया B. सत्यजीत राय
C. एआर रहमान D. रेसुल पुकुटटी

87. जून 2020 में, अमित पंधाल और विकास कृष्ण को बॉक्सिंग फेडरेशन ऑफ इंडिया द्वारा _____ के लिए नामांकित किया गया था।
A. पद्म भूषण B. राजीव गांधी खेल रत्न पुरस्कार
C. पद्मश्री D. अर्जुन पुरस्कार

88. निम्नलिखित में से कौन एक ज्वारीय बंदरगाह है?
A. विशाखापत्तनम B. कांडला
C. तूतीकोरिन D. चेन्नई

89. उपभोक्ता संरक्षण अधिनियम, 2019 के प्रावधान _____ से लागू हुए हैं।

C. नॉर्थ ईस्ट यूनाइटेड

D. एफसी गोवा

99. _____ 1824 में ब्रिटिश ईस्ट इंडिया कंपनी के खिलाफ डॉक्ट्रिन ऑफ लैप्स के कार्यान्वयन के खिलाफ सशस्त्र विद्रोह का नेतृत्व करने वाले पहले भारतीय शासकों में से एक थे।

A. कित्तूर चेन्नम्मा

B. टीटूमीर

C. जयी राजगुरु

D. पजहस्सी राजा

100. निम्नलिखित में से किस समाज सुधारक ने वर्ष 1896 में पूना में एक शैक्षणिक संस्थान, हिंदू विधवा गृह की स्थापना की?

A. धोंडो केशव कार्वे

B. पुली थेवार

C. नानाजी देशमुख

D. तात्या टोपे

Solutions

1. B

Sol. Crust: the outer layer of rock that forms the surface of the earth or another planet

Horizon: the furthest that you can see, where the sky seems to meet the land or the sea.

Rainbow: a curved band of different colours that appears in the sky when the sun shines through rain.

Ocean: the mass of salt water that covers most of the earth's surface.

Hence, **option B** is the correct answer.

2. C

Sol. Let us understand the meaning of the given words:-

- * *Are* = (plural helping verb) used in present tense.
- * *May be* = (modal) used to show the possibility.
- * *Is* = (singular helping verb) used in present tense.
- * *Were* = (plural helping verb) used in past tense.

Now let's find out the correct fit for the blank:

- * "Are" is a plural helping verb. Thus, option A is incorrect.
- * "May be" used to show the possibility but there is no sign in the sentence that necessitates its usage to show the possibility. Thus, option B is incorrect.
- * "Were" is used in past tense. Thus, option D is incorrect.
- * "Is" is a singular helping verb and it is used in present tense.
- * Here in the given sentence, it is used after the empty subject "there".
- * In sentences that begin with empty subjects (like It, There), verb is used in accordance with the complement.
- * Here, "park" is the complement, which is singular in nature. Thus, singular helping verb "Is" is used in the filler.

Thus, "Is" becomes the correct word to fill in the blank.

The correct sentence will be: **There is a big park in front of our house.**

3. C

Sol. Let us understand the meaning of the given words:-

- * *Covers* = to place something over or in front of something in order to hide, protect or decorate it.
- * *Disappears* = to become impossible to see.
- * *Rises* = (in context of sun, moon etc.) appears above the horizon.
- * *Sets* = (in context of sun, moon etc.) to go down below the horizon.

Now let's find out the correct fit for the blank:

- * "Covers" is used in context of "place something to hide/protect". Thus, option A is incorrect.
- * "Disappears" is used in context of "impossible to see". Thus, option B is incorrect.
- * "Sets" is used in context of "go below the horizon". Thus, option D is incorrect.
- * "Rises" is used in context of "appear above the horizon".
- * Here in the given sentence, it means in order to do yoga, the speaker wakes up when the sun appears above the horizon.

Thus, "Rises" becomes the correct word to fill in the blank.

The correct sentence will be: **To practise yoga, I usually wake up when the sun rises.**

4. A

Sol. The underlined part of the sentence is grammatically incorrect.

- * Underlined part needs correction in preposition.
- * "For" as a preposition is used to show reason or cause.

For example:

She got an award **for** bravery.

* “On” as a preposition is used to show a day or date.

For example:

He is not fit to play in the match **on** Sunday.

* In the underlined sentence, “Wednesdays” is a day but we have used preposition “for”. This is wrong. Thus, preposition “on” should be used in place of preposition “for”.

* Hence, **“on Wednesdays”** is the correct substitution.

Thus, the correct sentence will be: **I have online science classes on Wednesdays.**

Hence, **option A** is the correct answer.

5. B

Sol. **The underlined part of the sentence is grammatically incorrect.**

* Underlined part needs correction in verb.

* As per the Subject Verb agreement, verb should be in accordance with the subject. Singular verb should be used with singular subject. Plural verb should be used with plural subject.

For example:

This **detail suggests** that the killer knew his victim.

* In the underlined sentence, singular helping verb “has” is used for plural subject “details”.

* This is not according to the subject verb agreement. Thus, plural helping verb “have” should be used in place of singular helping verb “has”.

* So, **“have been”** is the correct substitution.

The correct sentence will be: **The details of the menu for today's party have been worked out.**

Hence, **option B** is the correct answer.

6. D

Sol. **The underlined part of the sentence is grammatically incorrect.**

* Underlined part needs correction in conditionals.

* Third Conditional sentence is used to show imagined result based on imagined condition. IF clause (condition) takes the past perfect tense and mentions the imagined condition. Main clause (result) takes “would/should have” and mentions the imagined result.

For example:

If he **had passed** the exam, he **would have** got the job.

* In the underlined sentence, we have used “will” in the clause having the result.

* But IF clause contains an imagined condition in past perfect form.

* Thus, as per the third conditionals “would have been” should be used in place of “will be”.

* Hence, “**would have been**” is the correct substitution.

Thus, the correct sentence will be: **If the town had been built at a lower altitude, it would have been a lot warmer.**

Hence, **option D** is the correct answer.

7. B

Sol. The idiom “**Go off**” means stop working.

Example: Suddenly the lights **went off**.

Note: “Go off” also means to leave a place, especially in order to do something. But in option C, the usage of word “disappear” with “Leave” dilutes the meaning of “leaving a place for some work”. It simply suggests the act of “disappearing” act like a ghost. That’s why option C is not marked as correct option.

Hence, **option B** is the correct answer.

8. B

Sol. Let us understand the meaning of the given words:-

* *Anything* = (pronoun) used instead of “something” in negative sentences and in questions.

* *Other* = (pronoun) used to refer to people or things that are additional or different to people or things that have been mentioned or are known about

* *Another* = (pronoun) an extra thing or person.

* *None* = (pronoun) not one of a group of people or things; not any.

Now let's find out the correct fit for the blank:

- * "Anything" is used in the context of "something" in negative sentences. Thus, option A is incorrect.
- * "Another" is used in the context of "an extra thing". Thus, option C is incorrect.
- * "None" is used in the context of "not any". Thus, option D is incorrect.
- * "Other" is used to refer to people or things that are additional or different to people or things that have been mentioned.
- * Here, it refers to "oil" that are different from that have been mentioned i.e. "one kind of oil".

Thus, "Other" becomes the correct word to fill in the blank.

The correct sentence will be: **To an ordinary person, one kind of oil is as important as other.**

9. B

Sol. Let's understand the meaning of the given words:

End = the final part of a period of time, an event, an activity.

E.g.: You will be given a chance to ask questions at the **end**.

Show = a programme on television or the radio.

Start = the point at which something begins

E.g.: We have not won a match since the **start** of this season.

Hide = to put or keep someone/something in a place where something/someone cannot be seen or found.

Close = to put something into a position so that it covers an opening

Hence, **option B** is the correct answer.

10. C

Sol.

Option C has correctly spelt word.

“Difference” is the correct spelling. It means the way in which two people or things are not like each other.

11. A

Sol. The sentence is grammatically incorrect, and the error lies in **option A**. The error is related to **Preposition**.

* “Although” is a conjunction and it is used to join two clauses. It is used for introducing a statement that makes the statement in a sentence seem surprising.

For example:

Although the sun was shining, it wasn’t very warm.

Here, two clauses are:

Clause1: It wasn’t very warm.

Clause2: The sun was shining.

* “Despite” is a preposition and it is used before nouns or pronouns. It is used to show that something happened or is true although something else might have happened to prevent it.

For example:

His voice was shaking **despite** all his efforts to control it.

* In the given sentence, there is no clause after “although”.

* Only one clause is there in the sentence.

* Thus, preposition “despite” should be used in place of conjunction “although”.

* So, “**despite having**” is the correct substitution.

Thus, the correct sentence will be: **Smitha was offered the job despite having no qualifications.**

Hence, **option A** is the correct answer.

12. C

Sol. The sentence is grammatically incorrect, and the error lies in **option C**. The error is related to **Tense**.

* Simple present tense is used to show the activities that are done on regular basis. First form of verb is used in simple present tense.

For example:

She **goes** swimming **every day** in order to keep fit.

* Present continuous tense is used when focus is on ongoing activity. Verb structure for present continuous tense: “is/am/are + V1 + ing”

For example:

She **is riding** the crest of the wave at the moment.

* In the given sentence, “everyday” means happening regularly.

* But we have used present continuous tense show the action which is regular in nature.

* Thus, first form of verb “goes” should be used in place of “is going”.

* Hence, “**Sumanth goes**” is the correct substitution.

Thus, the correct sentence will be: **Sumanth goes to school by the school bus every day**.

Hence, **option C** is the correct answer.

13. A

Sol. Technology: scientific knowledge used in practical ways in industry.

Technicality: the small details of how to do something or how something works

Discovery: an act or the process of finding someone/something.

Engineering: the activity of applying scientific knowledge to the design, building and control of machines, roads, bridges etc.

Hence, **option A** is the correct answer.

14. A

Sol. Let us understand the meaning of the given words:-

- * *Didn't like* = (verb structure) used in simple past tense.
- * *Wasn't like* = (verb structure) used in past tense.
- * *Doesn't like* = (verb structure) used in simple present tense.
- * *Haven't liked* = (verb structure) used in present perfect tense.

Now let's find out the correct fit for the blank:

- * "*Wasn't like*" is incorrect verb structure. Thus, option B is incorrect.
- * "*Doesn't like*" is used in simple present tense. Thus, option C is incorrect.
- * "*Haven't liked*" is used in present perfect tense. Thus, option D is incorrect.
- * "*Didn't like*" is used in simple past tense and it is the correct verb structure.
- * Here in the given sentence, the time word "yesterday" necessitates that tense of the sentence should be "past".
- * So, it is appropriate to use verb structure of simple past tense.

Thus, "*Didn't like*" becomes the correct word to fill in the blank.

So, the correct sentence will be: **I didn't like the film we saw yesterday.**

15. C

Sol. Let's understand the meaning of the given words:

Confirm= to state or show that something is definitely true or correct.

E.g.: Her guilty expression **confirmed** my suspicions.

Open = allowing things to go through.

Agree = to have the same opinion as someone.

Reject = to refuse to accept or consider something

E.g.: The minister **rejected** any idea of reforming the current system.

Accept = to take willingly something that is offered.

Hence, **option C** is the correct answer.

16. A

Sol. The idiom “**break in**” means entry into a building using force, usually to steal something.

Example: Burglars had **broken in** while we went to the market.

Hence, **option A** is the correct answer.

17. D

Sol. **Option D has correctly spelt word.**

“Sufficient” is the correct spelling. It means enough for a particular purpose; as much as you need.

18. C

Sol. The sentence is grammatically incorrect, and the error lies in **option C**. The error is related to **Adjective**.

* “Much” as a determiner is used with uncountable nouns, esp. in negative sentences to mean “a large amount of something”, or after “how” to ask about the amount of something.

For example:

How **much water** does she needs?

Water is an uncountable noun

* “Many” as a determiner is used with plural countable nouns.

For example:

How **many children** do you have?

Children is a countable noun.

* In the given sentence, “cost” is an uncountable noun. Thus, “much” should be used in place of “many”.

* Hence, “**How much**” is the correct substitution.

Thus, the correct sentence will be: **How much does the cricket bat cost?**

19. A

Sol. Let's understand the meaning of the given words:

Evident= clear; easily seen.

E.g.: The growing interest in international affairs is clearly **evident** among the youth of our country.

Clear = easy to understand and not confusing.

E.g.: He was quite **clear** about his reasons for going abroad.

Aimless = having no direction or plan

Complex = complicated

Confusing = difficult to understand; not clear.

Hence, **option A** is the correct answer.

20. B

Sol. Let's understand the meaning of the given words:

Calm= not excited/nervous/upset.

E.g.: She always stays **calm** under pressure.

Excited = feeling or showing happiness and enthusiasm.

Quiet = making very little noise.

E.g.: They were all **quiet** for a moment.

Disturbed = mentally ill, esp. because of very unhappy or unpleasant experiences.

Claim = to say that something is true although it has not been proved and other people may not believe it.

Hence, **option B** is the correct answer.

21. A

Sol. The given passage is about a report titled "**Schooling and College Education in Covid-19 lockdown**".

"At" as a preposition is used to show where something/someone is or where something happens. Thus, option B is wrong.

"From" as a preposition is used to show where someone/something starts. Thus, option C is wrong.

"In" as a preposition is used to show at a point within an area or a space. Thus, option D is wrong.

"Of" as a preposition is used to show relating to something. Here in the given sentence, it is used to relate the "reports" to "Covid-19 lockdown" i.e. those reports that are related to the Covid-19 lockdown.

Hence, **option A** is the correct answer.

22. A

Sol. The given passage is about a report titled "**Schooling and College Education in Covid-19 lockdown**".

"Addition" is a noun, and it means a thing that is added to something else. Thus, option B is wrong.

"Though" as a conjunction is used to show "despite the fact that". Thus, option C is wrong.

"But" as a conjunction is used to show contrast. Thus, option D is wrong.

"Also" as an adverb is used to show the sense of "too".

Here in the given sentence, it is used for verb "pointed".

By using this adverb, the author is trying to add the additional point that has been put in the report.

Hence, **option A** is the correct answer.

23. C

Sol. The given passage is about a report titled "**Schooling and College Education in Covid-19 lockdown**".

"Condition" means the state that something is in. Thus, option A is wrong.

“Area” means part of a place, town etc. Thus, option B is wrong.

“Situation” means all the circumstances and things that are happening at a particular time. Thus, option D is wrong.

“Campus” means the buildings of a university or college and the land around them.

In the given sentence, it means that online schooling and college education will not allow students get the feel of studying in a physical environment of universities/schools.

Hence, **option C** is the correct answer.

24. B

Sol. The given passage is about a report titled “**Schooling and College Education in Covid-19 lockdown**”.

“Reward” means a thing that someone is given because someone has done something good, worked hard etc. Thus, option A is wrong.

“Conduct” means a person’s behaviour in a particular place. Thus, option C is wrong.

“Award” means a prize such as money, etc. for something that someone has done. Thus, option D is wrong.

“Opportunity” means a chance. In the given sentence, it means that in online schooling and university education, students will miss the chance to interact with real friends and their classmates.

They will only have interaction with their teacher.

Hence, **option B** is the correct answer.

25. D

Sol. The given passage is about a report titled “**Schooling and College Education in Covid-19 lockdown**”.

“Supported” means to help or encourage someone/something by saying or showing that you agree with them/it. Thus, option A is wrong.

“Encouraged” means to give someone support, courage or hope. Thus, option B is wrong.

“Discouraged” means to try preventing something or to prevent someone from doing something. Thus, option C is wrong.

“Upset” means to make someone feel unhappy, anxious or annoyed.

In the given sentence, it means that boys and girls are unhappy/annoyed with the present situation of covid-19 lockdown.

Hence, **option D** is the correct answer.

26. D

Sol. यदि दो संख्याओं को आपस में बदल दिया जाए तो समीकरण बन जाता है:

A). $49 \div 7 \times 5 + 35 - 42 = 18$

-> बाईं ओर से हल करने पर हमें प्राप्त होता है;

-> $7 \times 5 + 35 - 42$

-> $35 + 35 - 42 = 28$

दाएं पक्ष के समान नहीं है, इसलिए गलत है।

B). $42 \div 7 \times 5 + 49 - 35 = 18$

-> बाईं ओर से हल करने पर हमें प्राप्त होता है;

-> $6 \times 5 + 49 - 35$

-> $30 + 49 - 35 = 44$

दाएं पक्ष के समान नहीं है, इसलिए गलत है।

C). $42 \div 7 \times 35 + 5 - 49 = 18$

-> बाईं ओर से हल करने पर हमें प्राप्त होता है;

-> $6 \times 35 + 5 - 49$

-> $210 + 5 - 49 = 166$

दाएं पक्ष के समान नहीं है, इसलिए गलत है।

D). $35 \div 7 \times 5 + 42 - 49 = 18$

-> बाईं ओर से हल करने पर हमें प्राप्त होता है;

-> $5 \times 5 + 42 - 49$

-> $25 + 42 - 49 = 18$

जो दाएं पक्ष के बराबर है, इसलिए यह सही है।

इसलिए, विकल्प D सही उत्तर है।

27. B

Sol. पैटर्न इस प्रकार है; व्यंजन के लिए अक्षर का स्थानीय मान कूटबद्ध संख्या है जबकि स्वरों के लिए विपरीत अक्षर का स्थानीय मान कूटबद्ध संख्या है जैसा कि नीचे दिखाया गया है:

H	O	U	S	E
L	F		V	
8	12	6	19	22
I	N	K		
R				
18	14	11		

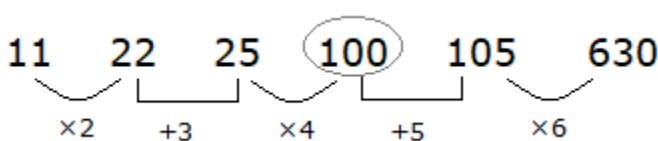
इसलिए,

M	I	S	T	A	K	E
R		Z		V		

अतः, विकल्प B सही उत्तर है।

28. D

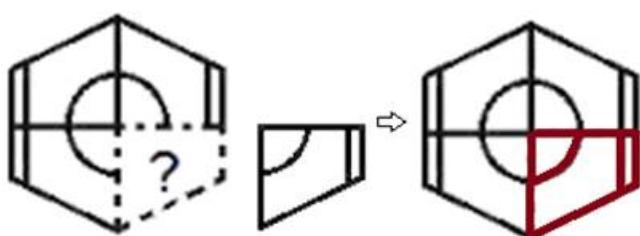
Sol. पैटर्न इस प्रकार है;



इसलिए, विकल्प D सही उत्तर है।

29. B

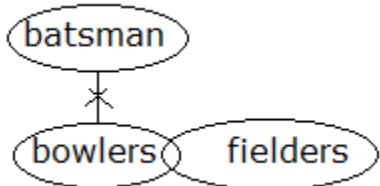
Sol. आकृति का पूरा पैटर्न नीचे दर्शाया गया है;



इसलिए, विकल्प B सही उत्तर है।

30. C

Sol. न्यूनतम संभावित वेन-आरेख होगा:



निष्कर्षः

I. कोई फील्डर, बैट्समैन नहीं है – यह निश्चित मामला नहीं है, इसलिए गलत है।

II. कोई बैट्समैन, बाउलर नहीं है - यह निश्चित मामला है, इसलिए सही है।

इस प्रकार, केवल निष्कर्ष II अनुसरण करता है।

इसलिए, विकल्प C सही उत्तर है।

31. B

Sol. पैटर्न इस प्रकार है:

$$25 \times 3 = 75; 24 \times 2 = 48$$

$$\text{अब, } 75 + 48 = 123$$

अब, पहली संख्या को दूसरी संख्या से घटाने पर प्राप्त संख्या में से घटाएं तो, $25 - 24 = 1$

$$\rightarrow 123 - 1 = 122$$

इसी प्रकार,

$$31 \times 3 = 93; 27 \times 2 = 54$$

$$\text{अब, } 93 + 54 = 147$$

अब, पहली संख्या को दूसरी संख्या से घटाने पर प्राप्त संख्या में से घटाएं तो, $31 - 27 = 4$

$$\rightarrow 147 - 4 = 143$$

अतः,

$$35 \times 3 = 105; 29 \times 2 = 58$$

$$\text{अब, } 105 + 58 = 163$$

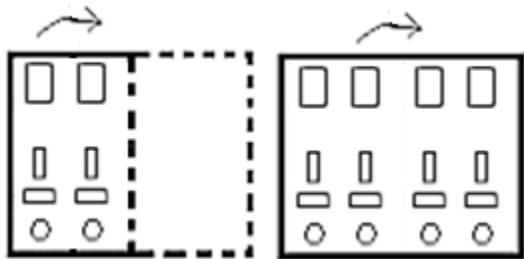
अब, पहली संख्या को दूसरी संख्या से घटाने पर प्राप्त संख्या में से घटाएं तो, $35 - 29 = 6$

$$\rightarrow 163 - 6 = 157$$

इसलिए, विकल्प B सही उत्तर है।

32. D

Sol. जब कागज की दी गई शीट को खोला जाता है तो यह नीचे दिखाए अनुसार दिखाई देगा:



इसलिए, विकल्प D सही उत्तर है।

33. C

Sol. दिया है:

$$\begin{array}{c} V \\ \wedge \\ T > H > K > L \\ \vee \\ Z = B \end{array}$$

यह स्पष्ट है कि K, Z से बड़ा है, और Z, B के बराबर है। इसका अर्थ है कि K भी B से बड़ा होना चाहिए।

इस प्रकार, K, B के बराबर नहीं हो सकता है।

इसलिए, विकल्प C सही उत्तर है।

34. C

Sol. पैटर्न इस प्रकार है:

C	A	N	V	A	S
+1	+2	+3	+4	+5	+6
D	C	Q	Z	F	Y

4 3 17 26 6 25

इसी प्रकार,

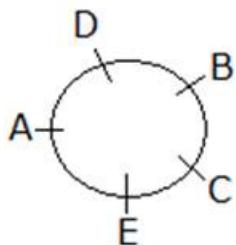
L	O	A	N	E	R
+1	+2	+3	+4	+5	+6
M	Q	D	R	J	X

13 17 4 18 10 24

इसलिए, विकल्प C सही उत्तर है।

35. A

Sol. दी गई जानकारी के अनुसार मेज की चारों ओर सेल्समैन के बैठने की स्थिति होगी;

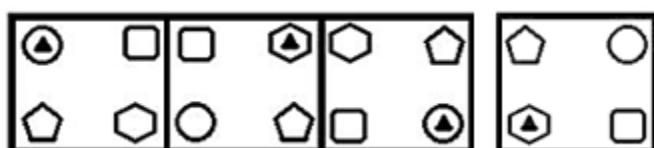


स्पष्ट रूप से, 'B', 'E' की दाईं ओर से दूसरे स्थान पर बैठा है।

इसलिए, विकल्प A सही उत्तर है।

36. C

Sol. तर्क: चार आकृतियां वृत्त, घन, षट्भुज और पंचभुज पहली आकृति में वृत्त से शुरू होकर वामावर्त दिशा में घूम रही हैं। साथ ही, छायांकित तिरभुज प्रत्येक आकृति के अंदर दक्षिणावर्त दिशा में घूम रहा है। इस प्रकार, अगली आकृति नीचे दिखाए अनुसार विकल्प (C) में दी गई होनी चाहिए;



इसलिए, विकल्प C सही उत्तर है।

37. C

Sol. पैटर्न इस प्रकार है:

$$6^2 + 7^2 = 36 + 49 = 85$$

इसी प्रकार,

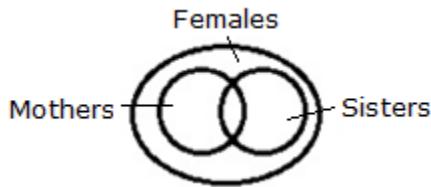
$$12^2 + 13^2 = 144 + 169 = 313$$

इसलिए, विकल्प C सही उत्तर है।

38. B

Sol. दिए गए वर्गों को विकल्प (B) में दिए गए वेन आरेख द्वारा सर्वोत्तम रूप से दर्शाया गया है जैसा कि नीचे दिखाया गया है:

कुछ बहनें, माताएं हैं और सभी माताएं और बहनें महिलाएं हैं।



इसलिए, विकल्प B सही उत्तर है।

39. C

Sol. पैटर्न इस प्रकार है: कूटबद्ध संख्या उदाहरण के लिए संबंधित शब्द में अक्षरों की संख्या की गणना करके प्राप्त अंकों का वर्ग है:

FOSTER – 6 अक्षर

6 का वर्ग = 36

इस प्रकार,

DANCE – 5 अक्षर

5 का वर्ग = 25

इस प्रकार,

ORCHARD – 7 अक्षर

7 का वर्ग = 49

इसलिए, विकल्प C सही उत्तर है।

40. B

Sol. रुपया एक मुद्रा है (वस्तुओं और सेवाओं के लिए विनिमय का माध्यम)। इसी तरह, ग्रीष्म एक मौसम है (पारिस्थितिकी, मौसम और किसी दिए गए क्षेत्र में दिन के घंटों की संख्या में परिवर्तन के आधार पर वर्ष का एक विभाजन है)।

इसलिए, विकल्प B सही उत्तर है।

41. C

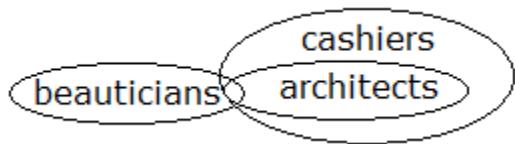
Sol. पैटर्न इस प्रकार है;

F	U	V
+3	+3	+1
I	X	W
+3	+3	+1
L	A	X
+3	+3	+1
O	D	Y
+3	+3	+1
R	G	Z

इसलिए, विकल्प C सही उत्तर है।

42. C

Sol. कथनों के अनुसार न्यूनतम संभावित वेन-आरेख होगा:



निष्कर्षः

- I. कुछ आर्किटेक्ट्स, ब्यूटिशियन हैं – यह एक निश्चित मामला है, इसलिए सही है।
- II. कुछ कैशियर, आर्किटेक्ट हैं – यह एक निश्चित मामला है, इसलिए सही है।
- III. कुछ कैशियर, ब्यूटिशियन हैं – यह एक निश्चित मामला है, इसलिए सही है। तो, सभी निष्कर्ष अनुसरण करते हैं।

इसलिए, विकल्प C सही उत्तर है।

43. D

Sol. पैटर्न इस प्रकार है:

18 R	15 O	13 M	1 A	14 N
+7 ↓	+7 ↓	+7 ↓	+7 ↓	+7 ↓
Y 25	V 22	T 20	H 8	U 21

इसी प्रकार,

20 T	8 H	9 I	14 N	7 G
+7 ↓	+7 ↓	+7 ↓	+7 ↓	+7 ↓
A 27	O 15	P 16	U 21	N 14

इसलिए, विकल्प D सही उत्तर है।

44. C

Sol. यहां शब्द युग्म के बीच संबंध यह है कि दोनों शब्द पर्यायवाची हैं। इस प्रकार, 'Pleasurable' और 'Delightful' दोनों पर्यायवाची शब्द हैं। इसी तरह, 'Excellent' और 'Bonzer' दोनों पर्यायवाची शब्द हैं।

इसलिए, विकल्प C सही उत्तर है।

45. A

Sol. पैटर्न इस प्रकार है;

$$\begin{aligned}C &- (+1) - D \\L &- (+1) - M \\A &- (+1) - B \\S &- (+1) - T \\S &- (+1) - T\end{aligned}$$

अब कूट प्राप्त करने के क्रम को उलट दें;

CLASS -> TTBMD

इसी तरह,

$$\begin{aligned}D &- (+1) - E \\I &- (+1) - J \\N &- (+1) - O \\O &- (+1) - P \\S &- (+1) - T \\O &- (+1) - P \\U &- (+1) - V \\R &- (+1) - S\end{aligned}$$

अब कूट प्राप्त करने के क्रम को उलट दें;

DINOSOUR -> SVPTPOJE

इसलिए, विकल्प A सही उत्तर है।

46. C

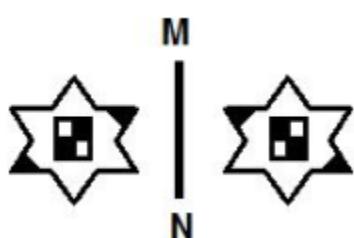
Sol. पैटर्न इस प्रकार है;

$$\begin{array}{ccccccccc}50 & 86 & \textcircled{111} & 127 & 136 & 140 & 141 \\+36 & +25 & +16 & +9 & +4 & +1 & \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \\ 6^2 & 5^2 & 4^2 & 3^2 & 2^2 & 1^2 & \end{array}$$

इसलिए, विकल्प C सही उत्तर है।

47. A

Sol. सही दर्पण छवि नीचे दिखाए अनुसार होगी:



इसलिए, विकल्प A सही उत्तर है।

48. A

Sol. दी गई जानकारी के अनुसार;

A	B	C	D
+	×	-	÷

जब हम दिए गए प्रतीकों को अक्षरों के स्थान पर लगाते हैं तो समीकरण बन जाता है:

$$\rightarrow 5 \times 5 \times 3 + 14 - (28 \div 7) + 5 \times (13 - 9)$$

$$\rightarrow 75 + 14 - 4 + 5 \times 4$$

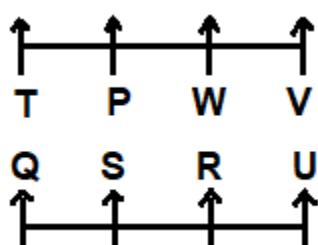
$$\rightarrow 75 + 10 + 20$$

$$\rightarrow 85 + 20 = 105$$

इसलिए, विकल्प A सही उत्तर है।

49. B

Sol. दी गई जानकारी के अनुसार; व्यवस्था होगी-

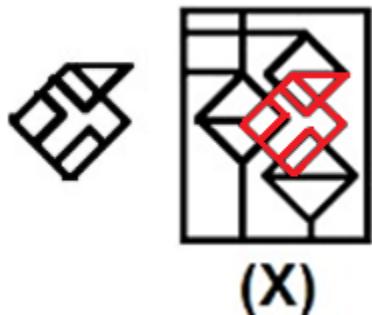


यह स्पष्ट है कि W, P और V के मध्य में बैठा है।

इसलिए, विकल्प B सही उत्तर है।

50. B

Sol. दी गई आकृति में विकल्प (B) में दी गई आकृति पूरी तरह से अंतर्निहित है जैसा कि नीचे दिखाया गया है:



इसलिए, विकल्प B सही उत्तर है।

51. C

Sol. उन श्रमिकों की कुल संख्या जिनकी दैनिक मजदूरी 550 रुपये से कम है = $20 + 25 + 30 = 75$

उन श्रमिकों की कुल संख्या जिनकी दैनिक मजदूरी 550 रुपये और उससे अधिक है = $25 + 40 + 60 = 125$

$$\text{अतः, अभीष्ट प्रतिशत} = \frac{(125 - 75)}{125} \times 100 = \frac{50}{125} \times 100 = 40\%$$

अतः विकल्प C सही है।

52. A

Sol. उन श्रमिकों की कुल संख्या जिनकी दैनिक मजदूरी 500 रुपये से कम है = $20 + 25 = 45$

उन श्रमिकों की कुल संख्या जिनकी दैनिक मजदूरी 600 रुपये और उससे अधिक है = $40 + 60 = 100$

इसलिए, उन श्रमिकों की कुल संख्या का आवश्यक अनुपात जिनकी दैनिक मजदूरी 500 रुपये से कम है, उन श्रमिकों की कुल संख्या का जिनकी दैनिक मजदूरी 600 रुपये और उससे अधिक है = $45 : 100 = 9 : 20$

अतः विकल्प A सही है।

53. D

Sol. श्रमिकों का प्रतिशत जिनकी दैनिक मजदूरी 500 से कम है = $\frac{(25 + 20)}{200} \times 100 = \frac{45}{200} \times 100 = 22.5\%$

श्रमिकों का प्रतिशत जिनकी दैनिक मजदूरी 600 रुपये और उससे अधिक है = $\frac{(40 + 60)}{200} \times 100 = \frac{100}{200} \times 100 = 50\%$

इसलिए, उन श्रमिकों के प्रतिशत के बीच आवश्यक अंतर जिनकी दैनिक मजदूरी 500 से कम है और श्रमिकों का प्रतिशत जिनकी दैनिक मजदूरी 600 रुपये और उससे अधिक है = $50\% - 22.5 = 27.5\%$

अतः विकल्प D सही है।

54. A

Sol. माना कि दो संख्याएँ $7x$ और $9x$ हैं।

प्रश्न के अनुसार,

$$\Rightarrow (7x)^2 + (9x)^2 = 8320$$

$$\Rightarrow 49x^2 + 81x^2 = 8320$$

$$\Rightarrow 130x^2 = 8320$$

$$\Rightarrow x^2 = 64$$

$$\Rightarrow x = 8$$

इसलिए, संख्याओं का अभीष्ट योग = $7x + 9x = 16x = 16 \times 8 = 128$

अतः विकल्प A सही है।

55. A

Sol. माना दूसरी संख्या x है।

$$\text{पहली संख्या} = \frac{3}{4} \times (x) = \frac{3x}{4}$$

प्रश्न के अनुसार,

$$\Rightarrow \frac{\left(\frac{1}{x} + \frac{1}{\left(\frac{3x}{4} \right)} \right)}{2} = \frac{7}{72}$$

$$\Rightarrow \frac{\left(\frac{1}{x} + \frac{4}{3x} \right)}{2} = \frac{7}{72}$$

$$\Rightarrow \frac{\left(\frac{3+4}{3x}\right)}{2} = \frac{7}{72}$$

$$\Rightarrow \frac{7}{(3x) \times 2} = \frac{7}{72}$$

$$\Rightarrow x = \frac{7 \times 72}{7 \times 3 \times 2}$$

$$\Rightarrow x = 12$$

$$\text{इसलिए, दो संख्याओं का योग} = (x) + \frac{3x}{4} = \frac{7x}{4} = \frac{7 \times 12}{4} = 21$$

अतः विकल्प A सही है।

56. A

Sol. हम जानते हैं कि:

$$\text{विक्रय मूल्य} = \text{क्रय मूल्य} \times \frac{(100 \pm \text{profit / loss \%})}{100}$$

माना वस्तु का क्रय मूल्य x रुपये है।

$$\text{विक्रय मूल्य} = \text{क्रय मूल्य} \times \frac{(100 - \text{loss \%})}{100}$$

$$= (x) \times \frac{(100 - 18)}{100}$$

$$= \frac{82x}{100}$$

$$= \frac{41x}{50}$$

प्रश्न के अनुसार,

$$\Rightarrow \frac{41x}{50} + 2475 = (x) \times \frac{(100+12)}{100}$$

$$\Rightarrow \frac{41x}{50} + 2475 = \frac{112x}{100}$$

$$\Rightarrow \frac{56x}{50} - \frac{41x}{50} = 2475$$

$$\Rightarrow \frac{15x}{50} = 2475$$

$$\Rightarrow x = \frac{2475 \times 50}{15}$$

$$\Rightarrow x = 8250$$

इसलिए वस्तु का क्रय मूल्य 8250 रुपये है।

अतः विकल्प A सही है।

57. D

Sol. वह संख्या जो 18, 32 और 48 से विभाज्य है = 18, 32 और 48 का LCM = 288

इसलिए, चार अंकों की सबसे छोटी संख्या की आवश्यकता है जो 18, 32 और 48 से पूर्णतः विभाज्य हो = $288 \times 4 = 1152$

अतः विकल्प D सही है।

58. D

Sol. बॉक्स A में कंचों की संख्या = $\frac{3}{(3+5+7)} \times 75 = \frac{3}{15} \times 75 = 15$

बॉक्स B में कंचों की संख्या = $\frac{5}{(3+5+7)} \times 75 = \frac{5}{15} \times 75 = 25$

बॉक्स C में कंचों की संख्या = $\frac{7}{(3+5+7)} \times 75 = \frac{7}{15} \times 75 = 35$

यदि 3 कंचे B से A में स्थानांतरित किए जाते हैं, तो,

बॉक्स B में कंचों की संख्या = $25 - 3 = 22$

बॉक्स A में संगमरमर की संख्या = $15 + 3 = 18$

अब,

यदि 5 कंचे C से B में स्थानांतरित किए जाते हैं, तो,

बॉक्स C में कंचों की संख्या = $35 - 5 = 30$

बॉक्स B में संगमरमर की संख्या = $22 + 5 = 27$

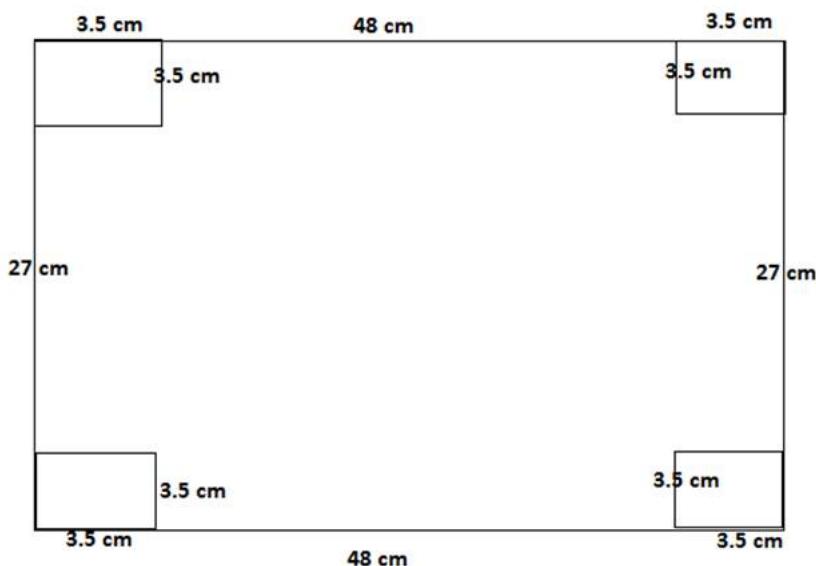
बॉक्स A में कंचों की संख्या = 18

अतः कंचों का नया अनुपात = $18 : 27 : 30 = 6 : 9 : 10$

अतः विकल्प D सही है।

59. C

Sol.



बॉक्स की लंबाई = $48 - 2 \times 3.5 = 48 - 7 = 41$ सेमी

बॉक्स की चौड़ाई = $27 - 2 \times 3.5 = 27 - 7 = 20$ सेमी

बॉक्स की ऊँचाई = 3.5 सेमी

बॉक्स का आयतन = लम्बाई × चौड़ाई × ऊँचाई

$$= 41 \times 20 \times 3.5$$

$$= 2870 \text{ सेमी}^3$$

इसलिए बॉक्स का आयतन = 2870 सेमी³

अतः विकल्प C सही है।

60. C

Sol. दिया गया है की:

पहली और दूसरी संख्या के बीच का अनुपात = 7 : 11

दूसरी और तीसरी संख्या के बीच का अनुपात = 11 : 15

पहली, दूसरी और तीसरी संख्या का अनुपात = 7 : 11 : 15

$$\text{पहली संख्या का मान} = \frac{7}{(7+11+15)} \times 396 = \frac{7}{33} \times 396 = 84$$

$$\text{तीसरी संख्या का मान} = \frac{15}{(7+11+15)} \times 396 = \frac{15}{33} \times 396 = 180$$

अतः पहली और तीसरी संख्या के बीच अभीष्ट अंतर = 180 - 84 = 96

अतः विकल्प C सही है।

61. C

Sol. दिया गया है की:

एक वस्तु को उसके अंकित मूल्य के 65% पर बेचा गया था, इसलिए छूट प्रतिशत = 100 - 65 = 35%

हम जानते हैं कि:

$$\frac{\text{Cost price}}{\text{marked price}} = \frac{(100 - \text{discount}\%)}{(100 + \text{profit}\%)}$$

$$\Rightarrow \frac{\text{Cost price}}{\text{marked price}} = \frac{(100 - 35)}{(100 + 30)}$$

$$\Rightarrow \frac{\text{Cost price}}{\text{marked price}} = \frac{65}{130}$$

$$\Rightarrow \text{क्रय मूल्य} : \text{अंकित मूल्य} = 1 : 2$$

इसलिए अंकित मूल्य का आवश्यक अनुपात : क्रय मूल्य = 2 : 1

अतः विकल्प C सही है।

62. D

Sol. हम जानते हैं कि:

$$\text{बेलन के आधार का क्षेत्रफल} = \pi r^2$$

$$\text{बेलन का वक्र पृष्ठीय क्षेत्रफल} = 2\pi rh$$

अब,

$$\Rightarrow \frac{\pi r^2}{2\pi rh} = \frac{346.5}{990}$$

$$\Rightarrow \frac{r}{2h} = \frac{7}{20}$$

$$\Rightarrow r = \frac{7h}{10}$$

अब,

$$\text{बेलन का वक्र पृष्ठीय क्षेत्रफल} = 2\pi rh$$

$$\Rightarrow 990 = 2 \times \frac{22}{7} \times \frac{7h}{10} \times h$$

$$\Rightarrow 990 = \frac{22h^2}{5}$$

$$\Rightarrow h^2 = \frac{990 \times 5}{22}$$

$$\Rightarrow h^2 = 225$$

$$\Rightarrow h = 15 \text{ सेमी}$$

इसलिए बेलन की ऊँचाई = 15 सेमी

अतः विकल्प D सही है।

63. C

Sol. दिया गया है कि:

$$(5+4^2) \div x \text{ का } 3 - 2 \times 4 = -7$$

$$\Rightarrow (5 + 16) \div 3x - 2 \times 4 = -7$$

$$\Rightarrow \frac{21}{3x} = -7 + 8$$

$$\Rightarrow \frac{21}{3x} = 1$$

$$\Rightarrow x = 7$$

इसलिए x का मान = 7

अतः विकल्प C सही है।

64. C

Sol. हम जानते हैं कि:

$$\text{गोले का आयतन} = \frac{4}{3} \pi r^3$$

$$\Rightarrow 65\frac{10}{21} = \frac{4}{3} \times \frac{22}{7} r^3$$

$$\Rightarrow \frac{1375}{21} = \frac{4}{3} \times \frac{22}{7} r^3$$

$$\Rightarrow r^3 = \frac{125}{8}$$

$$\Rightarrow r = \frac{5}{2} \text{ सेमी}$$

गोले का पृष्ठीय क्षेत्रफल = $4\pi r^2$

$$= 4 \times \frac{22}{7} \times \frac{5}{2} \times \frac{5}{2}$$

$$= \frac{550}{7}$$

$$= 78\frac{4}{7} \text{ सेमी}^2$$

इसलिए गोले का पृष्ठीय क्षेत्रफल = $78\frac{4}{7} \text{ सेमी}^2$

अतः विकल्प C सही है।

65. B

Sol. दिया गया है कि:

$$\text{मूलधन} = 8500 \text{ रुपये}$$

$$\text{राशि} = 11900 \text{ रुपये}$$

$$\text{साधारण ब्याज} = 11900 - 8500 = 3400 \text{ रुपये}$$

हम जानते हैं कि:

$$\text{साधारण ब्याज} = \frac{P \times R \times T}{100}$$

$$\Rightarrow 3400 = \frac{8500 \times R \times 5}{100}$$

$$\Rightarrow R = \frac{3400 \times 100}{8500 \times 5}$$

$$\Rightarrow R = 8\%$$

यदि ब्याज दर में 3% की वृद्धि होती है तो नई ब्याज दर = 8 + 3 = 11%

अब,

$$\text{साधारण ब्याज} = \frac{8500 \times 11 \times 5}{100}$$

$$= 4675 \text{ रुपये}$$

$$\text{इसलिए अभीष्ट राशि} = 8500 + 4675 = 13175 \text{ रुपये}$$

अतः विकल्प B सही है।

66. C

Sol. माना x व्यक्ति मूलरूप से वहाँ थे,

प्रश्न के अनुसार,

$$\text{कुल कार्य} = \text{कुल कार्य}$$

$$\Rightarrow 46 \times (x) = (46 - 16) \times (x + 8)$$

$$\Rightarrow 46x = 30x + 240$$

$$\Rightarrow 46x - 30x = 240$$

$$\Rightarrow 16x = 240$$

$$\Rightarrow x = \frac{240}{16}$$

$$\Rightarrow x = 15$$

इसलिए, मूलरूप से 15 व्यक्ति थे।

अतः विकल्प C सही है।

67. A

Sol. माना सात क्रमागत विषम संख्याएँ $(x - 5), (x - 3), (x - 1), (x + 1), (x + 3), (x + 5), (x + 7)$ हैं।

प्रश्न के अनुसार,

$$\text{औसत} = \frac{\text{Sum of the terms}}{\text{number of the terms}}$$

$$\Rightarrow 27 = \frac{(x - 5) + (x - 3) + (x - 1) + (x + 1) + (x + 3) + (x + 5) + (x + 7)}{7}$$

$$\Rightarrow 189 = 7x + 7$$

$$\Rightarrow 7x = 189 - 7$$

$$\Rightarrow x = \frac{182}{7}$$

$$\Rightarrow x = 26$$

$$\text{अंतिम पद} = x + 7 = 26 + 7 = 33$$

यदि अंतिम संख्या को सूची से हटा दिया जाए, तो शेष संख्याओं का योग $= x - 5 + x - 3 + x - 1 + x + 1 + x + 3 + x + 5 = 6x = 6 \times 26 = 156$

इसलिए शेष संख्याओं का औसत $= \frac{156}{6} = 26$

अतः विकल्प A सही है।

68. D

Sol. हम जानते हैं कि:

$$\text{घन का आयतन} = (\text{भुजा})^3$$

$$\text{माना घनों की भुजा} = x \text{ सेमी}$$

ठोस धात्तिक घनाभ का आयतन = लंबाई × चौड़ाई × ऊँचाई

$$= 36 \times 54 \times 24$$

प्रश्न के अनुसार,

ठोस धात्तिक घनाभ का आयतन = 8 × एक घन का आयतन

$$\Rightarrow 36 \times 54 \times 24 = 8 \times (\text{भुजा})^3$$

$$\Rightarrow (\text{भुजा})^3 = \frac{36 \times 54 \times 24}{8}$$

$$\Rightarrow (\text{भुजा})^3 = 5832$$

$$\Rightarrow \text{भुजा} = 18 \text{ सेमी}$$

अब,

एक घन का पृष्ठीय क्षेत्रफल = $6 \times (\text{भुजा})^2$

$$= 6 \times (18)^2$$

$$= 1944 \text{ सेमी}^2$$

अतः 8 घनों के पृष्ठीय क्षेत्रफल का अभीष्ट योग = $8 \times 1944 = 15552 \text{ सेमी}^2$

अतः विकल्प D सही है।

69. C

Sol. माना 2015 में कंपनी की आय x रुपये है।

प्रश्न के अनुसार,

$$\Rightarrow (x) \times \frac{(100 + 25)}{100} \times \frac{(100 + 25)}{100} = 3125000$$

$$\Rightarrow (x) \times \frac{125}{100} \times \frac{125}{100} = 312500$$

$$\Rightarrow x = \frac{312500 \times 4 \times 4}{5 \times 5}$$

$$\Rightarrow x = 20,00,000 \text{ रुपये}$$

इसलिए, 2015 में कंपनी की आय 20,00,000 रुपये थी।

अतः विकल्प C सही है।

70. C

Sol. माना वस्तु का अंकित मूल्य x रुपये है।

प्रश्न के अनुसार,

$$\Rightarrow (x) \times \frac{(100 - 14.5)}{100} - (x) \times \frac{(100 - 22)}{100} = 285$$

$$\Rightarrow \frac{85.5x}{100} - \frac{78x}{100} = 285$$

$$\Rightarrow \frac{7.5x}{100} = 285$$

$$\Rightarrow x = \frac{28500}{7.5}$$

$$\Rightarrow x = 3800 \text{ रुपये}$$

इसलिए वस्तु का अंकित मूल्य 3800 रुपये है।

अतः विकल्प C सही है।

71. B

Sol. हम जानते हैं कि:

$$\text{गति} = \frac{\text{distance}}{\text{time}}$$

$$\text{मोटरसाइकिल की गति} = \frac{280}{8} = 45 \text{ किमी/घंटा}$$

$$\text{साइकिल की गति} = 35 \times \frac{3}{14} = 7.5 \text{ किमी/घंटा}$$

इसलिए साइकिल द्वारा 2 घंटे में तय की गई दूरी = $2 \times 7.5 = 15$ किमी

अतः विकल्प B सही है।

72. B

Sol. माना कुल कार्य = LCM (15, 25) = 75 इकाई

$$A \text{ द्वारा एक दिन में किया गया कार्य} = \frac{75}{15} = 5 \text{ इकाई}$$

$$B \text{ द्वारा एक दिन में किया गया कार्य} = \frac{75}{25} = 3 \text{ इकाई}$$

$$A \text{ और } B \text{ द्वारा 5 दिनों में किया गया कार्य} = 5 \times (5 + 3) = 5 \times 8 = 40 \text{ इकाई}$$

$$\text{शेष कार्य} = 75 - 40 = 35 \text{ इकाई}$$

अब, B ने C का स्थान ले लिया और शेष कार्य A और C द्वारा 4 दिनों में पूरा किया गया।

$$A \text{ द्वारा अगले 4 दिनों में किया गया कार्य} = 4 \times 5 = 20 \text{ इकाई}$$

$$\text{शेष कार्य जो C द्वारा 4 दिनों में किया गया} = 35 - 20 = 15 \text{ इकाई}$$

$$C \text{ द्वारा एक दिन में किया गया कार्य} = \frac{15}{4} \text{ इकाई}$$

$$\text{इसलिए, अकेले कार्य को पूरा करने के लिए C द्वारा लिया गया अभीष्ट समय} = \left(\frac{15}{\frac{15}{4}} \right) = \frac{75 \times 4}{15} = 20 \text{ दिन}$$

अतः विकल्प B सही है।

73. A

Sol. माना ब्याज दर R% है

हम जानते हैं कि:

$$\text{राशि} = P \left(1 + \frac{R}{100} \right)^t$$

$$\Rightarrow 5547 = 4800 \left(1 + \frac{R}{100} \right)^2$$

$$\Rightarrow \frac{5547}{4800} = \left(1 + \frac{R}{100} \right)^2$$

$$\Rightarrow \frac{1849}{1600} = \left(1 + \frac{R}{100} \right)^2$$

$$\Rightarrow \frac{43}{40} = 1 + \frac{R}{100}$$

$$\Rightarrow \frac{R}{100} = \frac{43}{40} - 1$$

$$\Rightarrow \frac{R}{100} = \frac{3}{40}$$

$$\Rightarrow R = \frac{300}{40}$$

$$\Rightarrow R = 7.5\%$$

इसलिए ब्याज दर 7.5% है।

अतः विकल्प A सही है।

74. B

Sol. हम जानते हैं कि:

$$\text{माध्य} = \frac{\text{Sum of the terms}}{\text{number of the terms}}$$

$$\text{सभी } 25 \text{ संख्याओं का योग} = 25 \times 14$$

$$= 350$$

यदि प्रत्येक संख्या में 3 जोड़ दिया जाए, तो सभी 25 संख्याओं का योग = $350 + 25 \times 3 = 350 + 75 = 425$

$$\text{इसलिए नया माध्य} = \frac{425}{25} = 17$$

अतः विकल्प B सही है।

75. C

Sol. माना उसकी सामान्य चाल = 5 इकाई

$$\text{यदि वह अपनी सामान्य गति के } \frac{3}{5} \text{ से चलता है, तो उसकी गति} = \frac{3}{5} \times 5 = 3 \text{ इकाई}$$

हम जानते हैं कि:

$$\text{गति} \propto \frac{1}{\text{time}}$$

Speed	5 3
Time	3 5 <small>2 units = 1 hr 40 min</small>

$$\text{इसलिए, उसे अपनी सामान्य गति से समान दूरी तय करने में लगने वाला समय} = \frac{100}{2} \times 3 = 150 \text{ मिनट} = 2 \text{ घंटा } 30 \text{ मिनट} = \frac{5}{2} \text{ घंटे}$$

अतः विकल्प C सही है।

76. B

Sol. • 'पोवड़ा नृत्य' महाराष्ट्र राज्य की एक प्रदर्शन कला है।

- इसे "भदा" के नाम से भी जाना जाता है।
- यह नृत्य रूप महान मराठा शासक, श्री छत्रपति शिवाजी महाराज के जीवन की घटनाओं का वर्णन करता है।
- पोवड़ा भी उत्तराखण्ड में लोकप्रिय कविता की एक शैली है।
- यह कुमाऊं के साथ-साथ राज्य के गढ़वाल क्षेत्रों में भी लोकप्रिय है।

77. C

Sol. • भीती चित्र (fresco painting भित्ति चित्र) हरियाणा की एक लोकप्रिय कला है।

- फरेस्को एक प्रकार की दीवार चित्रकला है।
- इतालवी में "फरेस्को" शब्द का अर्थ "ताजा" है।
- यह भित्ति चित्रकला की एक तकनीक है जिसे ताजा रखे ("गीले") चूने के प्लास्टर पर किरणान्वित किया जाता है।
- मनोहर लाल खट्टर हरियाणा के 10वें और वर्तमान मुख्यमंत्री हैं।
- बंडारू दत्तात्रेय हरियाणा के वर्तमान राज्यपाल हैं।

78. D

- Sol.
- लड़कों में बढ़ते हुए वॉयस बॉक्स को गले के उभरे हुए हिस्से के रूप में देखा जा सकता है जिसे एडम्स एप्पल कहा जाता है।
 - एडम्स एप्पल थायरॉयड उपास्थिति से बना होता है।
 - एडम्स एप्पल को स्वरयंत्र प्रमुख के रूप में भी जाना जाता है।

79. C

- Sol.
- लिटमस विलयन एक बैंगनी रंग है, जो थैलोफाइटा डिवीजन से संबंधित पौधे लाइकेन से निकाला जाता है।
 - लिटमस लाइकेन की विभिन्न प्रजातियों में पाया जा सकता है।
 - यह आमतौर पर एक संकेतक के रूप में प्रयोग किया जाता है।
 - इसका उपयोग अन्लता के लिए सामग्री का परीक्षण करने के लिए किया जाता है।
 - लिटमस का प्रयोग पहली बार लगभग 1300 में स्पेनिश चिकित्सक अर्नाल्डस डी विला नोवा द्वारा किया गया था।

80. B

- Sol.
- वर्तिकाग्र फूल के मादा भाग का एक भाग होता है।
 - यह स्त्रीकेसर का शीर्ष भाग है, उसके बाद स्टाइल और फिर अंडाशय।
 - यह स्त्रीकेसर के शीर्ष पर चिपचिपी सतह है।
 - यह पराग को फँसाता है और धारण करता है।
 - यह एक फूल के केंद्र में पाया जा सकता है।
 - वर्तिकाग्र बड़े होते हैं और कुछ फूलों में आसानी से देखे जा सकते हैं, जबकि अन्य फूलों में यह छोटा और पहचानना मुश्किल होता है।

81. A

Sol. • इंफाल घाटी भारत के मणिपुर राज्य में स्थित है।

• यह एक अनियमित लगभग अंडाकार आकार की घाटी है।

• इंफाल घाटी में पानी कई नदियों से लाया जाता है जो घाटी से होकर बहती हैं, जैसे इम्फाल नदी, इरिल नदी, थौबल नदी, खुगा नदी और सेकमाई नदी।

• यह कौना शिल्प का एक महत्वपूर्ण केंद्र है।

82. C

Sol. • एल्युमिनियम गलन भारत का दूसरा सबसे महत्वपूर्ण धातुकर्म उद्योग है।

• देश में 8 एल्युमिनियम गलाने के संयंत्र ओडिशा (पूर्व में उड़ीसा) (नाल्को और बाल्को), पश्चिम बंगाल, केरल, उत्तर प्रदेश, छत्तीसगढ़, महाराष्ट्र और तमिलनाडु में स्थित हैं।

• लोहा और इस्पात उद्योग भारत में सबसे महत्वपूर्ण उद्योग है।

• भारत दुनिया का तीसरा सबसे बड़ा कच्चा इस्पात उत्पादक देश है।

83. B

Sol. • भारतीय सशस्त्र बलों द्वारा 'ऑपरेशन विजय' नामक सशस्त्र कार्रवाई कोड के बाद गोवा भारतीय राज्य के अंतर्गत आया।

• पुर्तगालियों ने लगभग 450 वर्षों तक गोवा पर शासन किया।

• भारतीय सशस्त्र बलों द्वारा किए गए ऑपरेशन विजय के बाद दिसंबर 1961 में इसे भारतीय प्रशासन को सौंप दिया गया था।

• गोवा की स्वतंत्रता का जश्न मनाने के लिए, हर साल 19 दिसंबर को "गोवा मुक्ति दिवस" के रूप में मनाया जाता है।

84. A

Sol. • प्रोफेसर बलराम भार्गव भारतीय चिकित्सा अनुसंधान परिषद (ICMR) के वर्तमान महानिदेशक हैं।

• वह भारत सरकार के स्वास्थ्य अनुसंधान विभाग (स्वास्थ्य और परिवार कल्याण मंत्रालय) के सचिव भी हैं।

• भारतीय आयुर्विज्ञान अनुसंधान परिषद (ICMR) जैव चिकित्सा अनुसंधान के निर्माण, समन्वय और प्रचार के लिए भारत में सर्वोच्च निकाय है।

• यह दुनिया के सबसे पुराने और सबसे बड़े चिकित्सा अनुसंधान निकायों में से एक है।

• इसे 1911 में इंडियन रिसर्च फंड एसोसिएशन (IRFA) के रूप में स्थापित किया गया था।

- 1949 में इसे भारतीय आयुर्विज्ञान अनुसंधान परिषद (ICMR) का नाम दिया गया।

- इसका मुख्यालय नई दिल्ली में है।

85. C

Sol. • अनुपम खेर 'द बेस्ट थिंग अबाउट यू इज यू' किताब के लेखक हैं।

- इसे 2014 में पेंगुइन ग्रुप द्वारा प्रकाशित किया गया था।

- अनुपम खेर भारतीय फ़िल्म और टेलीविजन संस्थान के पूर्व अध्यक्ष हैं।

- वह दो राष्ट्रीय फ़िल्म पुरस्कार और आठ फ़िल्मफेयर पुरस्कार प्राप्तकर्ता हैं।

- उन्होंने सारांश (1984) में अपने प्रदर्शन के लिए सर्वश्रेष्ठ अभिनेता का फ़िल्मफेयर पुरस्कार जीता।

86. A

Sol. • भानु अथेया ऑस्कर जीतने वाले पहले भारतीय थे।

- उन्होंने वर्ष 1983 में फ़िल्म गांधी के लिए सर्वश्रेष्ठ पोशाक डिजाइन का ऑस्कर जीता।

- वह बॉम्बे प्रोग्रेसिव आर्टिस्ट्स ग्रुप की एकमात्र महिला सदस्य थीं।

87. B

Sol. • जून 2020 में, विश्व रजत पदक विजेता अमित पंघाल और विकास कृष्ण को बॉक्सिंग फेडरेशन ऑफ इंडिया द्वारा राजीव गांधी खेल रत्न पुरस्कार के लिए नामांकित किया गया था।

- 6 अगस्त 2021 को, भारत सरकार ने राजीव गांधी खेल रत्न पुरस्कार का नाम बदलकर मेजर ध्यानचंद खेल रत्न पुरस्कार कर दिया।

- मेजर ध्यानचंद खेल रत्न पुरस्कार भारत का सर्वोच्च खेल सम्मान है।

- यह युवा मामले और खेल मंत्रालय द्वारा प्रतिवर्ष प्रदान किया जाता है।

- 2020 तक, इस पुरस्कार में एक पदक, एक प्रमाण पत्र और ₹25 लाख का नकद पुरस्कार शामिल है।

- पुरस्कार के पहले प्राप्तकर्ता शतरंज ग्रैंडमास्टर विश्वनाथन आनंद थे, जिन्हें वर्ष 1991-92 में प्रदर्शन के लिए सम्मानित किया गया था।

88. B

Sol. • कांडला बंदरगाह को भारत में ज्वारीय बंदरगाह के रूप में जाना जाता है।

- यह गुजरात के कच्छ की खाड़ी पर स्थित है।

- इसका निर्माण 1950 में किया गया था।
- यह कार्गो की मात्रा के हिसाब से भारत का सबसे बड़ा बंदरगाह है।
- कांडला पोर्ट का नाम बदलकर 25 सितंबर, 2017 को इंडिया पोर्ट एक्ट 1908 के तहत दीनदयाल पोर्ट ट्रस्ट कर दिया गया।
- कांडला विशेष आर्थिक क्षेत्र का बंदरगाह (KASEZ) भारत और एशिया में स्थापित होने वाला पहला विशेष आर्थिक क्षेत्र था।
- इसकी स्थापना 1965 में हुई थी।

89. D

Sol. • 20 जुलाई 2020 को उपभोक्ता संरक्षण अधिनियम, 2019 लागू हुआ।

- यह उपभोक्ता संरक्षण अधिनियम, 1986 को निरस्त और प्रतिस्थापित करता है।
- उपभोक्ता संरक्षण अधिनियम ने प्रत्येक ई-कॉर्मस इकाई के लिए मूल देश को प्रदर्शित करना अनिवार्य कर दिया है।
- अधिनियम का उद्देश्य उपभोक्ताओं के अधिकारों की रक्षा और उन्हें मजबूत करना है।

90. B

Sol. • मंडल आयोग ने सरकारी सेवाओं के सभी स्तरों में ओबीसी उम्मीदवारों के लिए 27% आरक्षण की सिफारिश की।

- मंडल आयोग को सामाजिक और शैक्षिक रूप से पिछड़ा वर्ग आयोग (SEBC) के रूप में भी जाना जाता है।
- इसकी अध्यक्षता बिंदेश्वरी प्रसाद मंडल ने की।
- इसकी स्थापना 1979 में तत्कालीन जनता पार्टी सरकार ने की थी।
- इस आयोग का कार्य क्षेत्र सामाजिक और आर्थिक रूप से पिछड़े लोगों की पहचान करना था।

91. C

Sol. • महाद्वीपीय द्रव्यमान के मुख्य खनिज घटक सिलिका और एल्यूमिना हैं।

- इस प्रकार इसे सियाल (सी-सिलिका और अल-एल्यूमिना) कहा जाता है।
- अतः विकल्प C सही उत्तर है।

92. D

Sol. • सबसे विद्युत प्रवाहकीय तत्व चांदी है, इसके बाद तांबा और सोना है।

- चांदी में किसी भी तत्व की उच्चतम तापीय चालकता और उच्चतम प्रकाश प्रावर्तन भी होता है।

- चांदी एक रासायनिक तत्व है जिसका प्रतीक Ag और परमाणु क्रमांक 47 है।

93. D

Sol. • 17 मई 1782 को मराठा साम्राज्य और ब्रिटिश इंस्ट इंडिया कंपनी के प्रतिनिधियों द्वारा "सालबाई की संधि" पर हस्ताक्षर किए गए थे।

- इस पर वारेन हेस्टिंग्स और महादाजी शिंदे के बीच हस्ताक्षर किए गए थे।

- संधि ने प्रथम आंग्ल-मराठा युद्ध को समाप्त कर दिया, यथास्थिति को बहाल किया, और 20 वर्षों के लिए दोनों पक्षों के बीच शांति स्थापित की।

94. B

Sol. • 7 जनवरी 2019 को, भारत सरकार ने सामान्य श्रेणी में आर्थिक रूप से कमज़ोर वर्ग (EWS) के लिए सरकारी नौकरियों और शैक्षणिक संस्थानों में 10% आरक्षण को मंजूरी दी।

- यह 10% आरक्षण उन सामान्य श्रेणी के परिवारों के लिए उपलब्ध है जिनकी वार्षिक आय 8 लाख रुपये से कम है।

- 103वां संविधान संशोधन अधिनियम इसी आरक्षण प्रावधान से संबंधित है।

- यह संशोधन अधिनियम 14 जनवरी 2019 को प्रभाव में आया।

95. B

Sol. • अंडाण मानव शरीर की सबसे बड़ी कोशिकाओं में से एक है।

- मानव शरीर की सबसे छोटी कोशिका नर युग्मक (शुक्रराणु) है।

96. D

Sol. • कावेरी नदी के पानी का बंटवारा दो भारतीय राज्यों तमिलनाडु और कर्नाटक के बीच एक गंभीर संघर्ष का स्रोत रहा है।

- संघर्ष की शुरुआत 1892 और 1924 में मद्रास प्रेसीडेंसी और मैसूर साम्राज्य के बीच दो समझौतों से हुई।

- कावेरी नदी कर्नाटक राज्य के कोडागु जिले के पश्चिमी घाट में ब्रह्मगिरि रेंज में तालकावेरी से निकलती है।

- कावेरी भी भारत की सात पवित्र नदियों में से एक है।

97. D

Sol. • 1977 में आईबीएम (IBM) और कोका कोला (Coca-Cola) कंपनियों ने फॉरेन एक्सचेंज रेगुलेशन एक्ट का पालन नहीं कर पाने के कारण अपना परिचालन बंद कर दिया।

- 1 जनवरी, 1974 को भारत में फेरा (FERA) (विदेशी मुद्रा विनियमन अधिनियम) लागू हुआ।

- इस अधिनियम के अनुसार, विदेशी निवेशक भारतीय उद्यमों में 40% से अधिक का स्वामित्व नहीं रख सकते थे।

- इस अधिनियम को 1998 में अटल बिहारी वाजपेयी की सरकार द्वारा निरस्त कर दिया गया था।
- इस अधिनियम को विदेशी मुद्रा प्रबंधन अधिनियम द्वारा प्रतिस्थापित किया गया, जिसने विदेशी मुद्रा नियंत्रण और विदेशी निवेश पर प्रतिबंधों को उदार बनाया।

98. A

Sol. • एटीके फुटबॉल क्लब ने इंडियन सुपर लीग 2019-2020 जीती।

- फाइनल में एटीके ने चेन्नईयन फुटबॉल क्लब को 3-1 से हराया।
- फाइनल मैच 14 मार्च, 2020 को गोवा के फतोर्ड स्टेडियम में आयोजित किया गया था।
- इस उपलब्धि के साथ, एटीके तीन इंडियन सुपर लीग (आईएसएल) खिताब जीतने वाला पहला क्लब बन गया है।
- 2019-20 इंडियन सुपर लीग सीज़न इंडियन सुपर लीग का छठा सीज़न था।
- यह शीर्ष भारतीय पेशेवर फुटबॉल लीगों में से एक है।

99. A

Sol. • कित्तूर चेन्नम्मा (कित्तूर की रानी) 1824 में ब्रिटिश ईस्ट इंडिया कंपनी के खिलाफ एक सशस्त्र विद्रोह का नेतृत्व करने वाले पहले भारतीय शासकों में से एक थे, जो डॉक्ट्रिन ऑफ लैप्स के कार्यान्वयन के खिलाफ थे।

- 1824 से कर्नाटक में रानी कित्तूर चेन्नम्मा के वीर विद्रोह का जश्न मनाने के लिए हर साल अक्टूबर के महीने में 'कित्तूर उत्सव' का आयोजन किया जाता रहा है।
- कित्तूर चेन्नम्मा का जन्म 23 अक्टूबर, 1778 को कर्नाटक के वर्तमान बेलगावी जिले के एक छोटे से गाँव काकाती में हुआ था।
- व्यपगत का सिद्धांत एक विलय नीति थी।
- इसे लॉर्ड डलहौजी, भारत के गवर्नर-जनरल (1848-56) द्वारा पेश किया गया था।
- सतारा (महाराष्ट्र) पहली रियासत थी जहां चूक के सिद्धांत को लागू किया गया था।

100. A

Sol. • धोंडो केशव कर्वे ने वर्ष 1896 में पूना में एक शैक्षणिक संस्थान, हिंदू विधवा गृह की स्थापना की।

- धोंडो केशव कर्वे को महर्षि कर्वे के नाम से जाना जाता है।
- उन्होंने विधवा पुनर्विवाह की वकालत की और उन्होंने स्वयं एक विधवा से विवाह किया।

- उन्होंने भारत में पहली महिला विश्वविद्यालय - एसएनडीटी महिला विश्वविद्यालय (मुंबई) की स्थापना की।
- 1958 में उन्हें भारत के सर्वोच्च नागरिक सम्मान भारत रत्न से सम्मानित किया गया।