

THE FIRST COMPARATIVE EXAMINATION 2017-18

Class X (ICSE)

LITERATURE IN ENGLISH

ENGLISH Paper 2

(Two hours)

Maximum marks: 80

Answers to this Paper must be written on the paper provided separately.

You will not be allowed to write during the first 15 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this paper is the time allowed for writing the answers.

Attempt five questions in all.

You must attempt one question from each of the Sections A, B and C
and any two other questions.

The intended marks for questions or parts of questions are given in brackets [].

SECTION A – DRAMA

The Merchant of Venice: Shakespeare

Question 1

Read the extract given below and answer the questions that follow:

Portia

My people do already know my mind,
And will acknowledge you and Jessica
In place of Lord Bassanio and myself,
And so farewell till we shall meet again.

- (i) Where is Portia at the moment? To whom is she speaking? Where is she planning to go? [3]
- (ii) How do 'you' and Jessica happen to be at the same place as Portia? Who else is there with them? [3]
- (iii) Which responsibility has been handed over by Portia to 'you' and Jessica? What reasons does she give for her own departure? [3]
- (iv) How does she intend to disguise Nerissa and herself? [3]
- (v) Who does Portia send to Padua a little later and why? [4]

Question 2

Read the extract given below and answer the questions that follow:

Portia

O me, the word 'choose'! I may neither choose whom I would, nor refuse whom I dislike; so is the will of a living daughter curbed by the will of a dead father. Is it not hard, Nerissa, that I cannot choose one nor refuse none?

- (i) How is 'the will of a living daughter curbed by the will of a dead father'? [3]
What does Nerissa say to justify the father's action?
- (ii) Describe the system devised by Portia's father for her marriage. [3]
- (iii) Name any three suitors that Portia and Nerissa discuss in this scene. Enumerate one quality each that Portia mentions to describe them. [3]
- (iv) What does Nerissa say to introduce Bassanio? What are Portia's feelings for him in this scene? Which casket did he finally choose later in the play? [3]
- (v) Portia mentions Sibylla and Diana a little later in the scene. Who are they and why are they referred to in the scene? [4]

Loyalties : John Galsworthy

Question 3

Read the extract given below and answer the questions that follow:

Lady Adela

Oh! Why did I ever ask that wretch De Levis? I used to think him pathetic. Meg – did you know – Ronald Dancy's coat was wet? The General happened to feel it.

Margaret

So that's why he was so silent.

Lady Adela

Yes, and after the scene in the Club yesterday he went to see those bookmakers, and Goole – what a name! – is sure he told Dancy about the sale.

- (i) Which sale is Lady Adela talking about? Why does De Levis claim that Dancy knew about the sale? [3]
- (ii) How does Margaret assess Dancy's character a little later during their conversation? [3]
- (iii) What does Dancy suggest to Mabel? What is her response? [3]
- (iv) Why does De Levis come to Dancy's flat soon after? What appeal does Mabel make to him? [3]
- (v) What were De Levis' reasons for being so stubborn in pursuing the case? [4]

Question 4

Read the extract given below and answer the questions that follow:

Ricardos

Well, Mr Tweesden and sare, this matter is very serious for me, and very delicate – it concairns my honour. I am in a great difficulty.

Twisden

When in difficulty – complete frankness, sir.

Ricardos

It is a family matter, sare, I —

- (i) Who has just left the scene? How is he connected to the case? [3]
- (ii) What compels Mr Ricardos to divulge the truth? [3]
- (iii) Mr Ricardos says that the stolen notes were a payment made to settle a debt of honour. What is this 'debt of honour'? [3]
- (iv) Do you think Ricardos was blackmailing Dancy? Substantiate your answer. [3]
- (v) Ricardos' disclosure changes the complexion of the case. What is the difference in Twisden and Grayiter's reaction to this disclosure? What do they decide to do in the end? [4]

SECTION B – POETRY

A Collection of Poems

Question 5

Read the extract given below and answer the questions that follow:

"I looked around to get some aid – the only things I found
Were big, deep craters in the earth – bodies on the ground.

I kept on firing at them, sir. I tried to do my best,
But finally sat down with this small pain in my chest."

(*Small Pain in My Chest*: Michael Mack)

- (i) Who is the speaker of these lines? Where is he? Describe his surroundings. [3]
- (ii) What help does he seek from the narrator? What is it symbolic of? What is the form of the poem? [3]
- (iii) Why has the poet repeated the phrase 'small pain in my chest' throughout the poem? Which literary device has been used thereby? [3]
- (iv) What does the soldier say about his family later in the poem? [3]
- (v) What does the narrator realise when he pulls the soldier towards himself? What is the larger wound symbolic of? What message does this poem give to its readers? [4]

Question 6

Read the extract given below and answer the questions that follow:

What do you weigh, O ye vendors?
 Saffron and lentil and rice.
 What do you grind, O ye maidens?
 Sandalwood, henna, and spice.
 What do you call, O ye pedlars?
 Chessmen and ivory dice.

(In the Bazaars of Hyderabad : Sarojini Naidu)

- (i) Mention any three wares sold by the merchants in the bazaar. [3]
- (ii) What were the goldsmiths making? [3]
- (iii) Make a list of food items, cosmetic items and items used in recreation given in the extract. [3]
- (iv) What fruits and musical instruments were displayed in the bazaar? [3]
- (v) How are the flowers used both on happy and sad occasions? How is the whole poem Indian in content and presentation? [4]

SECTION C – PROSE

Collection of Short Stories

Question 7

Read the extract given below and answer the questions that follow:

“Try to understand what I am saying! Our new government has sent us to help you, to talk to you and to understand your problems, so as to give you a better life.”

(Hunger: Nasira Sharma)

- (i) Where is Rizwan at the moment? What thoughts crossed his mind as he stood there? [3]
- (ii) Who is Rizwan looking for? Whom did he finally stop? What was his profession? [3]
- (iii) Where had Rizwan found a job for himself? On what conditions did he get the job? [3]
- (iv) Why was Rizwan satisfied when he came out of the office? What problem had already started worrying him? How did he overcome this worry? [3]
- (v) What unending problems did Rizwan face at home? How is the socio-economic inequality brought out in the story? [4]

Question 8

Personal freedom or liberty is the most desirable thing in the world. Discuss this statement in the context of the short story, ‘Princess September’.

[16]

THE FIRST COMPARATIVE EXAMINATION 2017-18

Class X (ICSE)
ENGLISH LANGUAGE
ENGLISH Paper – 1
(Two hours)

Maximum marks: 80

Answers to this Paper must be written on the paper provided separately.

You will not be allowed to write during the first 15 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this paper is the time allowed for writing the answers.

Attempt all four questions.

*The intended marks for questions or parts of questions are given in brackets [].
You are advised to spend not more than 35 minutes in answering Question 1 and 20 minutes in
answering Question 2.*

Question 1

(Do not spend more than 35 minutes on this question.)

Write a composition (350 – 400 words) on any one of the following:

[25]

- (a) You have recently represented your school at an Inter School Debate Competition. Describe your excitement on being selected as the best speaker of the competition and the honour you brought to your school.
- (b) "*Men and women should enjoy equal rights.*" Express your views either for or against the statement.
- (c) Narrate an incident from your own experience which made you realize that forgiveness is nobler than revenge.
- (d) Write an original short story beginning with the words: "In the faint light we could see"
- (e) Study the picture given on the next page carefully. Write a story or a description or an account of what it suggests to you. Your composition may be about the subject of the picture or you may take suggestions from it; however, there must be a clear connection between the picture and your composition.



Question 2

(Do not spend more than 20 minutes on this question.)

[10]

Select *any one* of the following:

- (a) Write a letter to your uncle describing your father's recent illness, the manner in which you took care of him and his gradual recovery. You may also add some information about your family's contribution towards his recovery.
- (b) Write a letter to the editor of a local daily about the bad condition of roads and drains in your city requesting him to publish the same in the newspaper to bring the matter to the notice of the concerned authorities.

Question 3

Read the following passage carefully and answer the questions that follow:

It was freezing outside, and I, a California tourist, ducked into Union Station. I hoped only to get warm. What I got was a lesson in the real meaning of the Christmas season, from a homeless person.

Warmth was slowly being *restored* to my hands and feet as I settled onto one of the public benches with a cup of steaming coffee. I was ready to relax and do some serious people-watching. I noticed a homeless man seated nearby and several tables of diners spilling out into the great hall from the American restaurant. Heavenly aromas from the gourmet treats were tempting me to consider an early dinner. From the longing in my neighbour's eye, it was obvious that he too had not failed to notice

5

10

the banquet taking place around us. I wondered how long it had been since he had eaten anything. Expecting he would approach me for a handout, I welcomed such a plea on his part. He never did. The more I took in the scene, the crueler his *plight* seemed. My head and heart were battling it out; the former telling me to mind my own business, while the latter urging me to make an immediate trip to the food court on his behalf.

15

While the internal debate was raging, a well-dressed young couple suddenly came there. "Excuse me, sir," began the husband. "My wife and I just finished eating and our appetite wasn't as big as we thought. We hate to waste good food. Can you help us out and put this food to good use?" The kind gentleman handed him a large container overflowing with goodies. "God bless you both. Merry Christmas," came the grateful reply. Feeling good about what I had seen, but dismayed by my own lack of action, I observed my neighbour's response to his sudden fortune. First, he scrutinized his new found bounty, arranging the soup crackers, inspecting the club sandwich and stirring the salad dressing. Then he slowly lifted the lid off the soup, inhaling the aroma and cupping his hands around the steaming bowl. It was obvious that he was going to prolong the enjoyment of this miracle meal. *Meticulously* unwrapping the plastic spoon, he filled it to overflowing, lifted it towards his mouth and with a suddenness that stunned me, stopped dead in his tracks.

The reason for this unexpected behaviour soon became clear. Entering the hall and shuffling in our direction was a new arrival. In his seventies, hatless and gloveless, he was clad in lightweight pants, a threadbare jacket and open shoes. His hands were raw and his face had a bluish tint. Quickly putting aside his treasure, he leaped up and guided the elderly man to the adjacent seat. He took the old man's hands and rubbed them. He tenderly draped his jacket over the man's shoulders. Finally, he spoke, "Pop, my name is Jack, and one of God's angels brought me this meal. I just finished eating, and I hate to waste good food. Placing the cup of steaming soup in the stranger's hand, he did not wait for an answer. But he got one, "Sure son, but only if you go halfway with me on that sandwich. It's too much for a man my age."

30

35

It wasn't easy making to the food court with tears blurring my vision but I soon returned with the largest containers of coffee and the biggest assortment of pastries possible. "Excuse me gentleman, but"

40

My parents like yours, taught me to share, but it wasn't until that day in Union Station that I truly learned the true meaning of the word. I left the hall feeling warmer than I had ever thought possible.

44

(a) Give the meaning of the following words as used in the passage.

One word answers or short phrases will be accepted.

- (i) restored (line 4)
- (ii) plight (line 12)
- (iii) meticulously (line 26)

[3]

- (b) Answer the following questions briefly in your own words:
- (i) When did the tourist feel he was ready to relax? What did he plan to do then? [3]
 - (ii) What did the tourist notice? Why was he tempted to have an early dinner? [3]
 - (iii) Explain what the tourist meant when he said, "My head and heart were battling it out." [2]
 - (iv) What did the couple give to the homeless man? How did the tourist react? [2]
 - (v) What lesson did the tourist learn? [2]
- (c) (i) In not more than 60 words, relate what the homeless man did, after the couple visited him, which left the tourist stunned. [8]
- (ii) Give a title to your summary in 3(c)(i). Give a reason to justify your choice of the title. [2]

Question 4

- (a) Fill in each of the numbered blanks with the correct form of the word given in brackets. Do not copy the passage, but write in correct serial order the word or phrase appropriate to the blank space. [4]

Example:

- (0) Except one student who (0) _____ (take) down ...

Answer: (0) was taking.

Except one student who (0) _____ (take) down the words (1) _____ (write) on the board, all others (2) _____ (give) the impression of a happy-go-lucky group (3) _____ (have) no concern about the lesson that they (4) _____ (suppose) to learn. The student (5) _____ (sit) at the extreme right (6) _____ (tease) the student next to him by (7) _____ (put) out his tongue as he was trying to concentrate while the teacher (8) _____ (explain).

- (b) Fill in the blanks with an appropriate word: [4]

- (i) Akash is blind _____ one eye.
- (ii) Wait _____ my return.
- (iii) The driver was forced to hand _____ the keys.
- (iv) He has great hatred _____ those who are hypocrites.
- (v) The whole town was plunged _____ sorrow after the demise of the mayor.
- (vi) He was in a hurry and just glanced _____ the letter.
- (vii) Nothing can stop him _____ pursuing his aim.
- (viii) Babies live _____ milk.

- (c) Join the following sentences to make one complete sentence without using and, but or so: [4]
- (i) The boy came here yesterday. He was my friend.
 - (ii) She did not come to the party. She was not feeling well.
 - (iii) He finished first. He began late.
 - (iv) I do not understand. It all happened.
- (d) Re-write the following sentences according to the instructions given after each. Make other changes that may be necessary, but do not change the meaning of each sentence. [8]
- (i) As soon as he wins the race, he kneels on the track.
(Begin: No sooner)
 - (ii) Over the last ten years, no fish has been caught in the area.
(Begin: It has)
 - (iii) Sindhu said, "Divya, as you're being so difficult, I won't help you."
(Begin: Sindhu refused)
 - (iv) It was so late that I could not attend the class.
(Use: too)
 - (v) It became clear to everyone present that she was innocent.
(Begin: Her)
 - (vi) No other empire in the world was as powerful as the Roman empire.
(Begin: The Roman empire)
 - (vii) The book is not entertaining. The book does not have a message.
(Begin: Neither)
 - (viii) The child disappeared as soon as the bus stopped.
(Begin: Hardly)

THE FIRST COMPARATIVE EXAMINATION 2017-18
Class X (ICSE)
GEOGRAPHY – H.C.G. 2

Time: Two hours

Maximum marks: 80

Instructions:

- Answers to this paper must be written on the answer script provided separately.
 - All subsections of each question must be answered in the correct serial order.
 - You will NOT be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper.
 - Please do not write anything on your question paper except your name and roll number.
 - The intended marks for questions or parts of questions are given in brackets [].
 - Do not copy the questions on your answer script but copy the correct question number.
 - The map given at the end of this question paper must be detached and after marking, must be fastened to your answer booklet.

Note

Note In all map work, make wise use of arrows to avoid overcrowding of the map.

Attempt six questions in all. Part I is compulsory. All questions from Part I are to be attempted. A total of four questions are to be attempted from Part II.

To be supplied with this paper: Survey of India Map sheet No. 45 D/7, T13 502; and 20 cm twine.

PART I [40 marks]

Compulsory

Question 1

Study the extract of the Survey of India Map Sheet No. 45D/7, T13 502 and answer the following questions:

- (a) What does the figure 1:50,000 printed below the map extract mean? [2]

(b) Give the four figure grid reference of:

 - (i) the confluence of Banas River and Balram Nadi [1]
 - (ii) a settlement with the facility of post office. [1]

(c) Give the meaning of the conventional symbols printed on the map for the following six figure grid reference:

 - (i) 957744
 - (ii) 925827. [2]

(d) Give the meaning of the following:

 - (i) Dep
 - (ii) QD. [2]

(e) What is the difference in the drainage pattern seen in grid square 9577 and 9876? [2]

(f) (i) Name the left bank tributary of the main river. [1]

(ii) State the direction in which this left bank tributary is flowing. [1]

(g) How does the settlement in grid square 9476 differ from the settlement in grid square 9873? [2]

THE FIRST COMPARATIVE EXAMINATION 2017-18

Class X (ICSE)
MATHEMATICS

Time: Two hours and a half

Maximum marks: 80

Instructions:

- * Answers to this paper must be written on the answer script provided separately.
- * You will NOT be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper.
- * The time given at the head of this paper is the time allowed for writing the answers.
- * Answer all questions in Section A. Attempt any four questions from Section B.
- * All working, including rough work must clearly be shown and must be done on the same sheet as the rest of the answer. Omission of essential working will result in loss of marks.
- * The intended marks for questions or parts of questions are given in brackets [].
- * Mathematical tables and graph papers shall be provided to you.

SECTION A [40 marks]

Attempt all questions from this section.

Question 1

- (a) Find the value of 'k', if $(2x + 1)$ is a factor of $2x^2 + kx - 3$. [3]
- (b) Without solving the following quadratic equation, find the values of 'm' for which the given equation has real and equal roots.

$$x^2 + 2(m-1)x + (m+5) = 0 \quad [3]$$

- (c) Find the matrix M, such that $M \times \begin{bmatrix} 2 & 6 \\ -1 & -8 \end{bmatrix} = \begin{bmatrix} -4 & 8 \end{bmatrix}$. Also write the order of matrix M. [4]

Question 2

- (a) Solve the following inequation and represent the solution set on the number line.

$$2y - 3 < y + 1 \leq 4y + 7, y \in \mathbb{W} \quad [3]$$

- (b) What should be subtracted from $3x^3 - 8x^2 + 4x - 3$, so that the resulting expression has $x + 2$ as a factor? [3]

-  A man invests a sum of money in ₹ 50 shares, paying 15% dividend quoted at 20% premium. If his annual dividend is ₹ 600, calculate:
- the number of shares he bought.
 - his total investment.
 - the rate of return on his investment.
- [4]

Question 3

-  The weights of 45 children in a class were recorded, to the nearest kg, as follows:

Weight (kg)	46	48	50	52	53	54	55
No. of children	6	5	8	11	10	2	3

Calculate the median weight and mode. [3]

- (b) If -1 and 3 are the roots of $x^2 + px + q = 0$, find the values of p and q . [3]
- (c) Mihir bought an article for ₹ 352 , which included a discount of 20% on the marked price and a sales tax of 10% on the reduced price. Find the marked price of the article. [4]

Question 4

- (a) Mr Gupta gets ₹ $6,325$ at the end of one year at the rate of 10% per annum in a Recurring Deposit Account. Find the monthly instalment. [3]
- (b) By selling an article for ₹ 21 , a trader loses as much percent as the cost price of the article. Calculate the cost price. [3]

(c) Use graph paper to draw a histogram for the following frequency distribution:

Class interval	$30 - 39$	$40 - 49$	$50 - 59$	$60 - 69$	$70 - 79$
Frequency	9	16	24	15	12

Find its mode. [4]

SECTION B [40 marks]

Attempt any four questions from this section.

Question 5

- (a) If $A = \begin{bmatrix} 3 & 7 \\ 2 & 4 \end{bmatrix}$, $B = \begin{bmatrix} 0 & 2 \\ 5 & 3 \end{bmatrix}$ and $C = \begin{bmatrix} 1 & -5 \\ -4 & 6 \end{bmatrix}$, find $AB - 5C$. [3]
- (b) A retailer sells an article for ₹ $5,350$ including 7% sales tax on the listed price. If he had bought it at a discount and has made a profit of 25% on the whole, find the rate of discount he gets. [3]
- (c) Show that $(x - 2)$ is a factor of $2x^3 + 5x^2 - 11x - 14$. Hence, factorise the given expression completely, using the Factor Theorem. [4]

Question 6

- (a) Given $P = \{x : 5 < 2x - 3 \leq 11, x \in \mathbb{R}\}$
and $Q = \{x : -1 \leq 3 + 4x < 27, x \in \mathbb{I}\}$.
Represent P and Q on two different number lines. Write down the elements of $P \cap Q$. [3]
- (b) Solve the equation $x^2 + 5x - 8 = 0$. Write your answer correct to 2 decimal places. [3]
- (c) A dividend of 9% was declared on ₹ 100 share selling at a certain price. If the rate of return is 7.5% , calculate:
(i) the market value of the share.
(ii) the amount to be invested to obtain an annual dividend of ₹ 720 . [4]

Question 7

- (a) Monica had a recurring deposit account in a bank and deposited ₹ 120 per month. If the maturity value of this account was ₹ 4,986 and the rate of interest was 10% per annum, find the time for which the account was held. [4]

~~(b)~~ The marks obtained by the students in an examination are given below:

Marks	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	90 - 100
No. of students	5	10	11	20	27	38	40	29	14	6

Using a graph paper, draw an ogive for the above distribution. Use ogive to estimate:

- (i) the median
- (ii) the upper quartile
- (iii) the number of students who obtained more than 80% marks
- (iv) the number of students who did not pass, if the pass percentage was 45. [6]

Question 8

~~(a)~~ Find the value of p , if the mean of following distribution is 117. [3]

x	100	110	120	$p + 25$	140
f	1	4	2	2	1

~~(b)~~ The marked price of an article is ₹ 900 and the rate of sales tax on it is 6%. If on selling the article at its marked price, a retailer has to pay VAT of ₹ 4.80, find the money paid by him (including sales tax) for purchasing this article. [3]

- (c) The product of the digits of a two digit number is 24. If its unit's digit exceeds twice its ten's digit by 2, find the number. [4]

Question 9

- (a) Solve the following equation by factorisation method:

$$\frac{9}{2}x = 5 + x^2 \quad [3]$$

(b) Given $A = \begin{bmatrix} 2 & -6 \\ 2 & 0 \end{bmatrix}$, $B = \begin{bmatrix} -3 & 2 \\ 4 & 0 \end{bmatrix}$ and $C = \begin{bmatrix} 4 & 0 \\ 0 & 2 \end{bmatrix}$,

find the matrix X such that $A + 2X = 2B + C$. [3]

- (c) Sunil has a recurring deposit account in a bank. He deposits ₹ 1,500 per month for 2 years. If he gets ₹ 39,750 at the time of maturity, find:

- (i) the interest paid by the bank.
- (ii) the rate of interest. [4]

Question 10

~~(a)~~ Mohit invests ₹ 4,500 in 8% ₹ 10 shares at ₹ 15. He sells the shares when the price rises to ₹ 30, and invests the proceeds in 12% ₹ 100 shares at ₹ 125. Calculate:

- (i) the sale proceeds.

(ii) the number of ₹ 125 shares he buys.

(iii) the change in his annual income from dividend.

[5]

(b) Find the mean of the following distribution, using short cut method:

[5]

Class interval	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60
Frequency	4	7	6	12	5	6

Question 11

(a) In the inequation $2 + \frac{3x-1}{5} \leq \frac{2x-1}{4} + 3$, write the greatest value of x

when

(i) x is a natural number.

(ii) x is a real number.

[3]

(b) If $x + a$ is a common factor of expressions

$$f(x) = x^2 + px + q \text{ and } g(x) = x^2 + mx + n, \text{ show that } a = \frac{n-q}{m-p}.$$

[3]

(c) By increasing the speed of a car by 10 km/hr, the time of journey for a distance of 36 km is reduced by 18 minutes. Find the original speed of the car.

[4]

THE FIRST COMPARATIVE EXAMINATION 2017-18

Class X (ICSE)
GEOGRAPHY – H.C.G. 2

Time: Two hours

Maximum marks: 80

Instructions:

- Answers to this paper must be written on the answer script provided separately.
- All subsections of each question must be answered in the correct serial order.
- You will NOT be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper.
- Please do not write anything on your question paper except your name and roll number.
- The intended marks for questions or parts of questions are given in brackets [].
- Do not copy the questions on your answer script but copy the correct question number.
- The map given at the end of this question paper must be detached and after marking, must be fastened to your answer booklet.

Note

In all map work, make wise use of arrows to avoid overcrowding of the map.

Attempt six questions in all. Part I is compulsory. All questions from Part I are to be attempted. A total of four questions are to be attempted from Part II.

To be supplied with this paper: Survey of India Map sheet No. 45 D/7, T13 502; and 20 cm twine.

PART I [40 marks]

Compulsory

Question 1

Study the extract of the Survey of India Map Sheet No. 45D/7, T13 502 and answer the following questions:

- What does the figure 1:50,000 printed below the map extract mean? [2]
- Give the four figure grid reference of:
 - the confluence of Banas River and Balram Nadi [1]
 - a settlement with the facility of post office. [1]
- Give the meaning of the conventional symbols printed on the map for the following six figure grid reference:
 - 957744 (ii) 925827. [2]
- Give the meaning of the following:
 - Dep (ii) QD. [2]
- What is the difference in the drainage pattern seen in grid square 9577 and 9876? [2]
- (i) Name the left bank tributary of the main river. [1]
(ii) State the direction in which this left bank tributary is flowing. [1]
- How does the settlement in grid square 9476 differ from the settlement in grid square 9873? [2]

- (h) What kind of vegetation is visible in grid square 9573 and state a reason for its occurrence? [2]
- (i) Calculate the area in square km enclosed by the eastings 98 and 01 and northings 79 and 83. [2]
- (j) Measure the length of the railway track seen in the map extract. Give your answer in metres. [2]
- (k) How does the number 180 (in brown) differ from 180 (in black) in grid square 9480? [2]
- (l) (i) Name the geographical feature formed in the river bed in grid square 9681. [1]
- (ii) What makes Chitrasani a better settlement than any other settlement shown in the given map extract? [2]

Question 2

On the outline map of India, mark and name the following:

- (a) The River Tungabhadra [1]
- (b) The River Gomti [1]
- (c) The Chota Nagpur Plateau [1]
- (d) Vishakhapatnam [1]
- (e) The Kanara Coast [1]
- (f) The Vindhya Range [1]
- (g) Mt. Kanchenjunga [1]
- (h) Wular Lake [1]
- (i) An important iron ore centre [1]
- (j) The Indian Standard Meridian [1]
- (k) Shade and name a sparsely populated state in North East India [1]
- (l) Shade and name a region with black soil [1]
- (m) The Karakoram Pass [1]
- (n) The Gulf of Khambhat [1]
- (o) The Thar Desert. [1]

PART II [40 marks]

(Attempt any four questions from this part.)

Question 3

- (a) (i) Name the transported soil most widely found in India. [1]
(ii) State the two sub-categories into which it is divided. [1]
(iii) Which one of them is superior and why? [1]
- (b) Give two characteristic features of the soil found most suitable for cotton. [2]

- (c) Give reason for each of the following:
- (i) Different regions in India have different kinds of soil. [1]
 - (ii) Red soil needs to be irrigated. [1]
 - (iii) Man is largely responsible for soil erosion. [1]
- (d) Define soil texture and soil fertility. [2]

Question 4

- (a) Explain three reasons for forest being an important natural resource. [3]
- (b) (i) Name the vegetation type found in saline environment under tidal influence. [1]
 - (ii) How do the trees adapt themselves to the condition there? [1]
- (c) (i) What is forest conservation? [1]
 - (ii) How does vegetation vary according to the altitude in the Montane Forests? [2]
- (d) (i) Explain why tropical deciduous forests are found on the eastern part of South India. [1]
 - (ii) Name a state in north eastern India which has a large area of tropical evergreen forests. [1]

Question 5

- (a) State any three drawbacks of the conventional methods of irrigation. [3]
- (b) How are tubewells beneficial to farmers in North India? [2]
- (c) What is rainwater harvesting? Why is it required? Give two reasons. [1+2]
- (d) Briefly explain two reasons for perennial canals being more popular form of irrigation in the northern states. [2]

Question 6

- (a) State the industrial uses of manganese in the following industry:
 - (i) Iron and Steel Industry [1]
 - (ii) Chemical Industry. [1]
- (b) Why is copper widely used in the electrical industry? [1]
- (c) (i) Name any two varieties of iron ore found in India and give a characteristic of each. [2]
 - (ii) How is black iron oxide utilized? [1]
- (d) Name the following minerals:
 - (i) It is converted to aluminium. [1]
 - (ii) The largest deposits of which are found in Chhindwara and Balaghat in Madhya Pradesh. [1]
 - (iii) It is used as an alloy with zinc to form brass. [1]
 - (iv) India has limited reserve of this mineral. [1]

Question 7

- (a) Define the following: [1]
(i) soil conservation [1]
(ii) in-situ soils [1]
(iii) humus. [2]
- (b) Explain any two modern methods of irrigation. [3]
- (c) Mention three methods for the conservation and development of forests in India. [2]
- (d) Name two other metals alloyed with copper to make stainless steel. [2]

Question 8

- (a) Name one state and one centre where iron-ore is mined. Name one industry where it is extensively used. [3]
- (b) Name the natural vegetation largely found in the following regions: [1]
(i) Central and Western Rajasthan [1]
(ii) Eastern slopes of Western Ghats. [1]
- (c) Tank irrigation is more popular in the Deccan. Give two reasons. [3]
- (d) Give reason for each of the following: [1]
(i) In north India people depend more on ground water than on surface water. [1]
(ii) Canal irrigation causes the ground around it to become unproductive. [1]

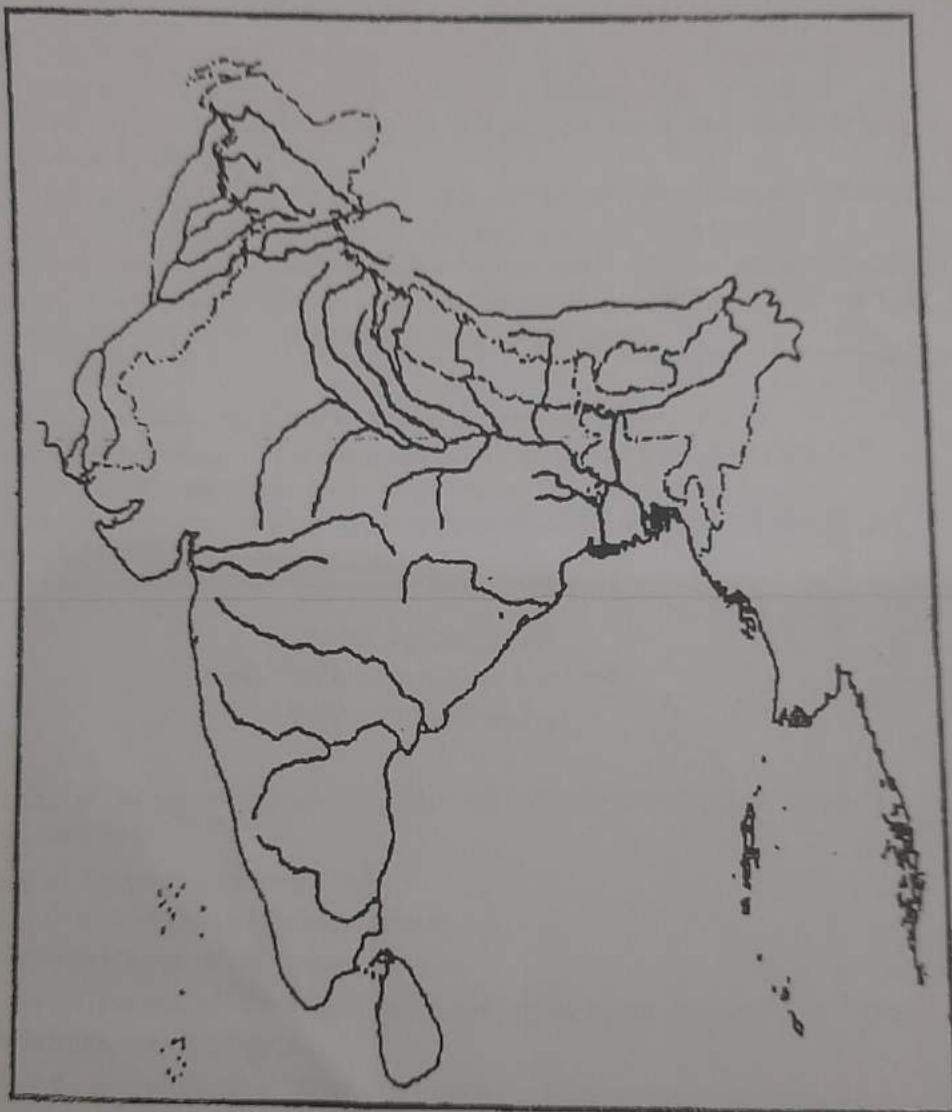
Question 9

- (a) Give reason for each of the following: [1]
(i) Leaves of thorn forests are small. [1]
(ii) Soil erosion has rapidly increased in the Shiwalik Ranges. [1]
(iii) Overgrazing is a cause of soil erosion. [1]
- (b) Why is bauxite widely used in manufacturing of aircrafts? [2]
- (c) (i) Why is well irrigation not popular in the peninsular plateau of Southern India? [2]
(ii) Name any two crops which are grown on red soil. [1]
- (d) Mention two differences between the alluvial soil of the northern plains and the deltaic plains of India. [2]

Name Index No.

(This map, if used, must be fastened with all other answers)

Map of India for Question 2.



ONLY FOR THE EXAMINER

a	b	c	d	e	f	g	h	i	j

THE FIRST COMPARATIVE EXAMINATION 2017-18

Class X (ICSE)

History & Civics – H. C. G. – Paper 1

Time: Two hours

Maximum marks: 80

Instructions:

- Answers to this paper must be written on the answer script provided separately.
- All subsections of each question must be answered in the correct order.
- You are NOT allowed to write during the first 15 minutes. This time is to be spent in reading the question paper.
- The time given at the head of this paper is the time allowed for writing the answers.
- Please do not write anything on your question paper except your name and roll number.
- The intended marks for questions or parts of questions are given in brackets [].
- Do not copy the questions on your answer script but copy the correct question number.
- Part I is compulsory. Attempt two questions out of three from Section A and three questions out of five from Section B. A total of five questions will be attempted from Part II.

PART I [30 marks]

Attempt all questions from this Part.

Question 1

- (a) Name the main constituents of the Indian Parliament. [1]
(b) What is the maximum gap allowed between the two Parliamentary sessions? [1]
(c) By whom and on whose advice can the Lok Sabha be dissolved? [1]
(d) How is the speaker of the Lok Sabha elected? [1]
(e) Who can initiate a motion to amend the Constitution? [1]
(f) Mention any one situation when both the houses of the Parliament meet for a joint session. [1]
(g) What can a President do when a Money bill is sent to him? [1]
(h) Name the two types of authority in a federal set up in India. [1]
(i) What is the quorum to hold the meetings of the Lok Sabha? [1]
(j) On what basis do the states get representation in the Rajya Sabha? [1]

Question 2

- (a) Mention any two changes that the British Government brought about, after the Revolt of 1857, regarding the relations with Princely States. [2]
(b) Name any two prominent papers of the 19th century which aroused the spirit of nationalism among the Indians. [2]
(c) Mention the objectives of the Indian National Congress as declared by W.C. Bonnerjee. [2]

- (d) Mention any two contributions of Surendra Nath Bannerjee to the national movement. [2]
- (e) Name the repressive colonial policies followed by Lord Lytton which acted as a catalyst for the growth of national movement. [2]
- (f) How did the socio-religious reform movement help in promoting nationalistic sentiments amongst the Indians? [2]
- (g) Why was the signing of the Lucknow Pact an important event towards the growth of unity in India? [2]
- (h) What was the immediate cause of the First World War? [2]
- (i) When and why was the League of Nations established? [2]
- (j) Explain the term 'Fascism'. [2]

PART II [50 marks]

SECTION A

Attempt any two questions from this Section.

Question 3

With reference to the Union Parliament, answer the following:

- (a) (i) What is the maximum strength of the Lok Sabha as provided by the Constitution? [1]
- (ii) How many members does the President nominate to the Lok Sabha? Which community do they represent? [1]
- (iii) How are the members of the Lok Sabha elected? [2]
- (b) The two houses of the Parliament enjoy co-equal powers in many spheres. Explain it by giving any three examples. [3]
- (c) Mention any three exclusive powers of the Rajya Sabha. [3]

Question 4

With reference to the Union Parliament, answer the following:

- (a) Composition of the Rajya Sabha. [3]
- (b) State three administrative functions of the Speaker. [3]
- (c) Explain the terms:
(i) Session [2]
(ii) Adjournment Motion. [2]

Question 5

With reference to the powers and functions of the Union Parliament, answer the following:

- (a) Mention any three of its Financial Powers. [3]
- (b) Mention any three of its Electoral Functions. [3]
- (c) Mention any four of its Legislative Powers. [4]

- (d) Mention any two contributions of Surendra Nath Bannerjee to the national movement. [2]
- (e) Name the repressive colonial policies followed by Lord Lytton which acted as a catalyst for the growth of national movement. [2]
- (f) How did the socio-religious reform movement help in promoting nationalistic sentiments amongst the Indians? [2]
- (g) Why was the signing of the Lucknow Pact an important event towards the growth of unity in India? [2]
- (h) What was the immediate cause of the First World War? [2]
- (i) When and why was the League of Nations established? [2]
- (j) Explain the term 'Fascism'. [2]

PART II [50 marks]

SECTION A

Attempt any two questions from this Section.

Question 3

With reference to the Union Parliament, answer the following:

- (a) (i) What is the maximum strength of the Lok Sabha as provided by the Constitution? [1]
- (ii) How many members does the President nominate to the Lok Sabha? Which community do they represent? [1]
- (iii) How are the members of the Lok Sabha elected? [2]
- (b) The two houses of the Parliament enjoy co-equal powers in many spheres. Explain it by giving any three examples. [3]
- (c) Mention any three exclusive powers of the Rajya Sabha. [3]

Question 4

With reference to the Union Parliament, answer the following:

- (a) Composition of the Rajya Sabha. [3]
- (b) State three administrative functions of the Speaker. [3]
- (c) Explain the terms:
 - (i) Session [2]
 - (ii) Adjournment Motion. [2]

Question 5

With reference to the powers and functions of the Union Parliament, answer the following:

- (a) Mention any three of its Financial Powers. [3]
- (b) Mention any three of its Electoral Functions. [3]
- (c) Mention any four of its Legislative Powers. [4]

SECTION B

Attempt any three questions from this Section.

Question 6

Numerous causes were at work in the great uprising of 1857. With reference to this, answer the following:

- (a) Explain any three political causes of the Revolt of 1857. [3]
- (b) The laws that interfered in the religious and social customs of the people. [2]
- (c) What was the General Service Enlistment Act? [2]
- (d) Immediate cause of the Revolt of 1857. [3]

Question 7

With reference to the pictures given below and the Indian National Congress, answer the following:



(A)



(B)

- (a) Identify the persons A and B given above. To which section of the Congress did each belong. [3]
- (b) Highlight three different methods of struggle adopted by each section of the Congress. [3]
- (c) State two contributions of each in the freedom struggle. [4]

Question 8

With reference to the Divide and Rule Policy of the British, answer the following:

- (a) What was the argument of Lord Curzon in favour of partition of Bengal and how did the nationalists interpret it? [3]
- (b) Mention the objectives of the Muslim League. [3]
- (c) Explain briefly:
 - (i) Surat Split of 1907 [2]
 - (ii) Hindi-Urdu Controversy. [2]

Question 9

With reference to the First World War, answer the following:-

- (a) How did the division of Europe into two hostile camps lead to the First World War? [3]
(b) What were the territorial rearrangements done after the First World War? [3]
(c) How was Germany affected by the Treaty of Versailles? [4]

Question 10

With reference to Fascism and Nazism, answer the following:

- (a) How did economic crisis led to the rise of Fascism in Italy? [3]
(b) How did the spread of Communism lead to the rise of Nazism in Germany? [3]
(c) Mention any two similarities and any two differences in the principles of Nazism and Fascism. [4]

THE FIRST COMPARATIVE EXAMINATION 2017-18
Class X (ICSE)
HINDI

Time: Three hours

Maximum marks: 80

Instructions:

- Answers to this paper must be written on the paper provided separately.
- You will NOT be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper.
- *The time given at the head of this paper is the time allowed for writing the answers.*
- This paper comprises of two sections: Section A and Section B.
- Attempt all the questions from section A. Attempt any four questions from section B, answering at least one question each from the sections (prose and poetry) you have studied and any two other questions.
- The intended marks for questions or parts of questions are given in brackets [].

SECTION A [40 marks]

Attempt all questions.

Question 1

Write a short composition in Hindi of approximately 250 words on any *one* of the following topics:-

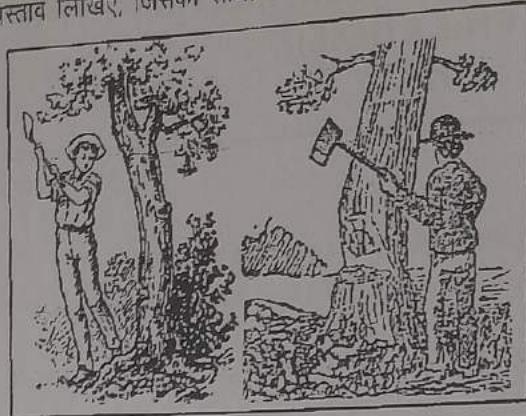
[15]

निम्नलिखित विषयों में से किसी एक पर हिन्दी में लगभग 250 शब्दों में संक्षिप्त लेख

लिखिए:-

- "जिसने अनुशासन में रहना सीख लिया, उसने जीवन का सबसे बड़ा खजाना पा लिया।" इस विषय पर अपने विचार व्यक्त कीजिए।
- भारत के किसी एक महानगर का वर्णन कीजिए। उसका महत्त्व एवं उसकी विशेषताएँ बताइए तथा उस महानगर में स्थित कुछ मुख्य स्थानों का वर्णन भी कीजिए।
- भारत पर्वों का देश है। यहाँ की संस्कृति में अनेकता में एकता के दर्शन होते हैं। लोग मिल-जुलकर सभी पर्वों का आनंद उठाते हैं। इस संदर्भ में अपने किसी प्रिय पर्व का उल्लेख करते हुए बताइये कि यह त्योहार आपको क्यों अच्छा लगता है।
- 'जैसी करनी वैसी भरनी' इस उकित को आधार मानते हुए कोई मौलिक कहानी लिखिए।

- (v) नीचे दिए गए चित्र को ध्यान से देखिए और चित्र को आधार बनाकर कोई कहानी अथवा प्रस्ताव लिखिए, जिसका सीधा और स्पष्ट सम्बन्ध चित्र से होना चाहिए।



Question 2

Write a letter in Hindi in approximately 120 words on any *one* of the topics given below:-

[7]

निम्नलिखित में से किसी एक विषय पर हिन्दी में लगभग 120 शब्दों में पत्र लिखिए:-

- अपने शहर में फैले हुए डेंगू (बुखार) की रोकथाम हेतु स्वास्थ्य अधिकारी को पत्र लिखिए।
- आप अपने मित्र की बहन के विवाह में सम्मिलित न हो सके। अतः पत्र लिखकर कारण सहित पूर्ण विवरण देकर मित्र से क्षमा याचना कीजिए।

Question 3

Read the passage given below and answer in Hindi the questions that follow, using your own words as far as possible:-

निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़िए तथा उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए। उत्तर यथासंभव आपके अपने शब्दों में होने चाहिए:-

सूर्यकांत त्रिपाठी 'निराला' हिंदी के सुप्रसिद्ध कवि हैं। उनका जन्म 1899 में पश्चिम बंगाल में हुआ। उनका व्यक्तित्व अद्भुत था। कद ऊँचा, सुगढ़ शरीर के मालिक निराला अपने मन के भावों को स्पष्ट रूप से कह देने में ही विश्वास रखते थे। उनके व्यक्तित्व की अद्भुत बात यह थी कि वे पल में परशुराम के समान क्रोधित हो जाते और पल में करुणा गे सागर कन जाते, परंतु यह कहना अधिक न होगा कि वे मानव मूल्यों के साकार रूप थे।

निराला जी अपनी लेखनी से ही गुजर-वसर करते थे। उनकी आर्थिक स्थिति सदा चिंताजनक रही। उन्हें कहीं से रूपये मिलते तो वे दिना सोचे-समझे ज़रूरतमंदों में बाँट देते। उनकी पत्नी का देहांत हुआ, तो उनके दो बच्चे थे - वडा वेटा रामकृष्ण त्रिपाठी और बेटी सरोज। आर्थिक तंगी के कारण उन्होंने वेटी का विवाह सादगी से किया। विवाह के पश्चात् वेटी बीमार पड़ी तो उनके पास दवा आदि के लिए पैसे न थे। पैसों के अभाव में पुत्री की मृत्यु का दोषी वे स्वयं को मानते थे। सरोज की याद में उन्होंने सरोज स्मृति लिखी।

उनके जीवन की कई घटनाओं से उनकी सरलता, दानवीरता और अपनेपन का पता चलता है। सन् 1942-43 की घटना है। निराला जी इलाहाबाद के दारागंज मोहल्ले की तंग गली के एक छोटे से मकान में रहते थे। घर में एक तख्त था। एक रजाई थी। तख्त वे अपने एक परिचित कमला शंकर सिंह के यहाँ ही खाना खा लेते थे। रुपये मिले तो वे एक दिन कमला शंकर सिंह को अपना कमरा दिखाने लाए। तख्त पर नया गददा विछा था। नई चादर और तकिये के अतिरिक्त रजाई भी नई थी। ऊपर आले में नए जूते रखे थे। कमला शंकर सिंह ने पूछा, "जूते भी क्या नए खरीदे हैं?" निराला जी ने पुराने जूते दिखाते हुए कहा, "यह देखो न, पुराने हो गए हैं।" उन जूतों की एड़ी विस गई थी। उसी समय उनका रसोइया आया। उन्होंने उसे जूते लाने को कहा। रसोइया जब जूते उतार रहा था, तो निराला जी ने उसके फटे पाँव देखे।

निराला जी ने उससे पूछा, "तुमने ऐसा जूता कभी पहना है?"

उसने उत्तर दिया, "मैं ऐसा जूता कहाँ पहन सकता हूँ महाराज!"

निराला जी बोले, "ज़रा इसे पहन कर देखो। तुम्हारे पाँव में ठीक आता है कि नहीं?"

रसोइया डिझक रहा था। उसने सकुचाते हुए कहा, "मैं यह अंग्रेजी जूता क्या करूँगा, महाराज! यह बहुत कीमती है।"

"पहनकर दिखाओ तो!" निराला जी ने आदेश दिया, तो रसोइया ने जूते पहन लिए।

"अब इन जूतों को तुम्हीं पहनो। तुम्हारे पाँव नहीं फटेंगे।" निराला जी के मुख पर संतोष का अद्गुत भाव था।

कमला शंकर सिंह दो दिन बाद फिर निराला जी के कमरे में उन्हें बुलाने गए। वे कमरे की हालत देखकर दंग रह गए। तख्त का नया गददा, चादर, रजाई सब गायब थे। वही पुरानी रजाई आधी विछाकर और आधी ओढ़कर वे सोए हुए थे।

"नयी रजाई और गददे कहाँ गए?" कमला शंकर सिंह ने पूछा।

"एक मित्र है। गरीब है। बाल-वच्चे वाले हैं। उनको सर्दी के कपड़ों की अत्यंत आवश्यकता थी। उनको सब कपड़े दे दिए हैं।" निराला जी ने इस भाव से कहा मानो साधारण—सी बात हो। निराला जी फिर वैसे—के—वैसे रह गये।

(i) निराला जी का जन्म कब और कहाँ हुआ था? उनका व्यक्तित्व कैसा था? [2]

(ii) निराला जी इलाहाबाद के कौन—से मोहल्ले में रहते थे? उन्होंने रजाई और गददे किसे दे दिए और क्यों? [2]

(iii) 'लेखनी से गुजर—बसर करना' का क्या तात्पर्य है? कोई भी नई चीज़ निराला जी के पास अधिक दिनों तक क्यों नहीं रह पाती थी? [2]

(iv) निराला जी की आर्थिक स्थिति कैसी थी? वे अपनी पुत्री की मृत्यु का कारण स्वयं को क्यों समझते थे? [2]

(v) निराला जी ने अपने जूते किसे दिए और क्यों? इससे उनके व्यक्तित्व की किन विशेषताओं का पता चलता है? [2]

Question 4

Answer the following according to the instructions given:-
निम्नलिखित प्रश्नों के उत्तर निर्देशानुसार लिखिए:-

[1]

- (i) निम्नलिखित शब्दों से विशेषण बनाइए:-

भूख, वकील

[1]

- (ii) निम्नलिखित में से किसी एक शब्द के दो पर्यायवाची शब्द लिखिए:-

खत, देह

- (iii) निम्नलिखित शब्दों में से किन्हीं दो शब्दों के विपरीतार्थक शब्द लिखिए:-

अस्त, अंधकार, आरंभ, उचित

[1]

- (iv) निम्नलिखित शब्दों में से किन्हीं दो शब्दों को शुद्ध कीजिए:-

कृपालू, अवकास, आत्मनिभर, वधु

[1]

- (v) निम्नलिखित मुहावरों में से किसी एक की सहायता से वाक्य बनाइए:-

आँखें भर आना, रंग उड़ना

[1]

- (vi) कोष्ठक में दिए गए निर्देशानुसार वाक्यों में परिवर्तन कीजिए:-

(a) विश्व में उन्हें परम विद्वान के रूप में जाना जाता है। (भविष्यकाल में बदलिये)

[1]

(b) वह सत्यवादी था। ('नहीं' का प्रयोग कीजिए किन्तु अर्थ में किसी प्रकार का परिवर्तन न हो)

[1]

(c) अगर वर्षा होगी तो फसल अच्छी होगी। (फसल तब से वाक्य का प्रारंभ कीजिए)

[1]

SECTION B [40 Marks]

Attempt four questions from this section.

You must answer at least one question from each of the Sections (Prose and Poetry) you have studied and any two other questions.

साहित्य सागर – संक्षिप्त कहानियाँ

Question 5

Read the extract given below and answer in Hindi the questions that follow:-
निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

"आपको अपना महायज्ञ बेचना होगा, वही जो आज आपने किया। आज आपने भारी यज्ञ किया है। महाराज ! उसे बेचोगे तो हम खरीद लेंगे, नहीं तो नहीं।"

- महायज्ञ का पुरस्कार –

लेखक – यशपाल

- (i) "आज आपने भारी यज्ञ किया है" – किसने, किससे और क्यों कहा ? [2]
- (ii) महायज्ञ की बात सुनकर सेठ ने आश्चर्य प्रकट करते हुए क्या कहा ? [2]
- (iii) महायज्ञ की बात पर सेठ को क्या महसूस हुआ ? स्पष्ट कीजिए। [3]
- (iv) धना सेठ की पत्नी ने सेठ को क्या समझाया ? [3]

Question 6

Read the extract given below and answer in Hindi the questions that follow:-

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

अब श्यामा ने हँसकर कहा – 'तो क्या तुम समझते हो कि मनोरमा तुमको प्यार करती है और वह दुश्चरित्रा है ?'

– संदेह –

लेखक – जयशंकर प्रसाद

- (i) श्यामा को रामनिहाल पर हँसी क्यों आई ? स्पष्ट कीजिए। [2]
- (ii) श्यामा ने रामनिहाल के हाथ से वह चित्र क्यों खींच लिया ? वह चित्र किसका था ? [2]
- (iii) रामनिहाल हत्थुद्धि अपराधी-सा श्यामा को क्यों देखने लगा ? स्पष्ट कीजिए। [3]
- (iv) श्यामा का चरित्र चित्रण कीजिए। [3]

Question 7

Read the extract given below and answer in Hindi the questions that follow:-

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

दूसरे दिन मुकदमा शेख सलीमुद्दीन की कचहरी में पेश हुआ। रसीला ने तुरंत अपना अपराध स्वीकार कर लिया।

– बात आठनी की –

लेखक – सुदर्शन

- (i) रसीला ने कचहरी में क्या कहा ? इस बात से रसीला की कौन-सी विशेषता स्पष्ट होती है ? [2]
- (ii) रसीला सजा से बचने के लिए कचहरी में और क्या कह सकता था ? [2]
- (iii) 'उसकी आँखें खुल गई थीं।' यह कथन किसके बारे में कहा गया है और क्यों ? स्पष्ट कीजिए। [3]
- (iv) किस बात से पता चलता है कि शेख साहब न्यायप्रिय आदमी नहीं थे ? [3]

साहित्य सागर – पद्य भाग

Question 8

Read the extract given below and answer in Hindi the questions that follow:-

निम्नलिखित पद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

कौँकर पाथर जोरि कै, मसजिद लई बनाय।
ता चढ़ि मुल्ला बाँग दे, क्या वहरा हुआ खुदाय॥
पाहन पूजे हरि मिले, तो मैं पूजूँ पहार।
ताते ये चाकी भली, पीस खाय संसार॥

— साखी —

कवि — कबीरदास

- (i) उपर्युक्त साखियों के माध्यम से कवि क्या स्पष्ट करना चाहते हैं ? [2]
(ii) 'वया वहरा हुआ खुदाय' – कबीर ऐसा क्यों पूछते हैं ? स्पष्ट कीजिए। [2]
(iii) कबीर ने चक्की को उपयोगी क्यों बताया है ? पहाड़ पूजने का तर्क देकर कबीर लोगों को क्या समझाना चाह रहे हैं ? [3]
(iv) कबीरदास का परिचय लिखिए। [3]

Question 9

Read the extract given below and answer in Hindi the questions that follow:-

निम्नलिखित पद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

जन्मे जहाँ थे रघुपति, जन्मी जहाँ थीं सीता,
श्रीकृष्ण ने सुनाई, वंशी पुनीत गीता।
गौतम ने जन्म लेकर, जिसका सुयश बढ़ाया,
जग को दया दिखाई, जग को दिया दिखाया।
वह युद्धभूमि मेरी, वह बुद्धभूमि मेरी।
वह जन्मभूमि मेरी, वह मातृभूमि मेरी।

— वह जन्मभूमि मेरी —

कवि — सोहनलाल द्विवेदी

- (i) प्रथम पंक्ति में कवि ने किनका उदाहरण दिया है और क्यों ? [2]
(ii) बुद्ध ने देश का सुयश कैसे बढ़ाया ? [2]
(iii) कवि ने देश को युद्धभूमि क्यों कहा है ? स्पष्ट कीजिए। [3]
(iv) गीता का पवित्र ज्ञान किसने, किसको और क्यों दिया ? [3]

Question 10

Read the extract given below and answer in Hindi the questions that follow:-

निम्नलिखित पद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

मेघ आए यडे बन-ठन के सँवर के।

आगे-आगे नाचती-गती बयार चली,

दरघाजे-खिड़कियाँ खुलने लगी गली-गली,

पाहुन ज्यों आए हो, गाँव में शहर के।

मेघ आए वडे बन-ठन के सँवर के।

- मेघ आए -

कवि - सर्वेश्वर दयाल सक्सेना

- (i) मेघ के बारे में कवि ने क्या कहा है ? [2]
- (ii) मेघ के आने पर बयार में क्या परिवर्तन दिखाई दिए ? [2]
- (iii) पाहुन के आने से गाँव में क्या हलचल हुई ? [3]
- (iv) 'मेघ आए' कविता के माध्यम से कवि ने प्रकृति के किस-किस रूप का मानवीकरण किया है ? स्पष्ट कीजिए। [3]

THE FIRST COMPARATIVE EXAMINATION 2017-18
Class X (ICSE)
COMPUTER APPLICATIONS

Time: Two hours

Maximum marks: 100

Instructions:

- * Answers to this paper must be written on the answer script provided separately.
 - * All subsections of each question are to be answered in the correct order.
 - * All working including rough work should be done on the same sheet as the rest of the answer.
 - * You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper.
 - * The time given at the head of the paper is the time allowed for writing the answers.
 - * Please do not write anything on the question paper except your name and roll number.
 - * The intended marks for questions or parts of questions are given in brackets [].
 - * Attempt all questions from Section A and any four questions from Section B.
-

SECTION A [40 marks]

Attempt all questions from this section.

Question 1

- (a) Write the difference between implicit type conversion and explicit type conversion. [2]
- (b) What is meant by scope of a variable? Give an example. [2]
- (c) Which principle of Java supports:
 - (i) hiding of background details [1]
 - (ii) combining of data and functions under a single unit – class? [1]
- (d) What is the role of keyword final in Java? [2]
- (e) Write the statement in Java to:
 - (i) accept integer type value through a Scanner class function [1]
 - (ii) accept double type value through a Scanner class function. [1]

Question 2

Answer the following:

- (a) What is Dynamic initialization? [2]
- (b) Name two selection control statements used in Java programming. [2]
- (c) Explain the behaviour of *break* in a loop. [2]
- (d) Give the output of the following statements:
 - (i) System.out.print(Math.ceil(0.25)); [1]
 - (ii) System.out.print(Math.floor(-1.01)); [1]
- (e) Identify the errors in the following code:

```
int sum = 0;
for(int i = 1, i <= 5, i++) sum = sum + i;
```

[2]

Question 3

(a) Give the output of the following code snippet:

```
for(int i = 0; i <= 2; i++)  
{    for(int j = 1; j <= i; j++)  
    {        if(i == 1) continue;  
        System.out.println(i + "\t" + j);  
    }  
}
```

[2]

(b) Write the corresponding Java expression for the following mathematical operations:

$$\text{res} = |0.05 - y^2 / \sqrt{x+y}|$$

[2]

(c) Find the result of the following Java expression:

$$2 - 10 * 3 + 112 \% 100 / 3 \text{ (show stepwise working)}$$

[2]

(d) Write the output of the following statements:

```
System.out.println("Nine = " + 5 + 4);  
System.out.println("Six = " + (2 + 4));
```

[2]

(e) Rewrite the following using do - while construct:

```
int a = 10;  
for(int i = 2 ; ; i++)  
{    a = a + i;  
    if(a > 20) break;  
}
```

[2]

(f) Rewrite the following using switch - case construct:

```
int k = 2;  
if(k == 1) k++;  
else if(k == 3) --k;  
else k = k + 2;  
System.out.println(k);
```

[2]

(g) Find the value of variable 'm' and write the output:

```
int m = 5; m = m++ > 5 ? --m : ++m;  
System.out.println(m);
```

[2]

(h) Find the value of variable 'x'. Show working:

```
int x = 3;  
x *= x++ * 2 + 3 * --x;  
System.out.println(x);
```

[2]

- (i) Give the output and find how many times the loop executes. Show working.

```
int p = 160;
do
{
    if(p < 100)
        break;
    p = p - 20;
    System.out.print(p + " ");
}
while(p != 0);
```

[2]

- (j) What is a literal in Java? Give an example.

[2]

SECTION B [60 marks]

Attempt any four questions from this section.

The answers in this Section should consist of the Program in Blue J environment with Java. Each program should be written using Variable descriptions/Mnemonic Codes such that the logic of the program is clearly depicted.

Flow-charts and Algorithms are not required.

Question 4

Write a program in Java to input a number and check if the number is a Friendly Number or not. A number is a Friendly Number if the sum of its digits is divisible by 9. Display a proper message “Number is a Friendly Number” OR “Number is NOT a Friendly Number”. For example 954 is a friendly number as the sum of its digits $9 + 5 + 4 = 18$ is divisible by 9.

[15]

Question 5

Write a program in Java to input the values of 'X' and 'N' and print the sum of the following series:

$$X + X^2 / 2 + X^3 / 3 + X^4 / 4 + X^5 / 5 + \dots + X^N / N$$

[15]

Question 6

Write a menu driven program in Java to input a choice and perform the following:

- (a) Input a number N and check whether it is a Lucky Number or not. When the number N divided by 9 gives remainder as 1 then it is a Lucky Number.
- (b) Input a number n and print its factorial. For example for the inputted number $n = 5$ the factorial will be $(1 \times 2 \times 3 \times 4 \times 5) = 120$.

[15]

Question 7

A shop is offering following festival discounts on the purchase of items, based on the total cost of the items purchased.

Total Cost (in ₹)	Discount (in percentage)
less than 5000	5%
above 5000 and up to 10000	7.5%
above 10000 and up to 20000	10%
above 20000	12%

Write a program in Java to input the total cost and to compute and display the total cost and the amount to be paid by the customer after availing the discount.

[15]

Question 8

Write a program in Java to input 20 numbers one by one using any standard input statement. Find and print the largest number, the smallest number of the inputted 20 numbers and the sum of all the inputted numbers.

[15]

Question 9

Write a program in Java to generate and print the following pattern:

```
# 1  
# 2 2  
# 3 3 3  
# 4 4 4 4  
# 5 5 5 5 5
```

[15]

THE FIRST COMPARATIVE EXAMINATION 2017-18

Class X (ICSE)

BIOLOGY

SCIENCE Paper - 3

Time: Two hours

Maximum marks: 80

Instructions:

- Answers to this paper must be written on the answer script provided separately.
- You will NOT be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper.
- The time given at the head of this paper is the time allowed for writing the answers.
- The intended marks for questions or parts of questions are given in brackets [].
- Please do not write anything on your question paper except your name and roll number.
- All subsections of each question must be answered in the correct order.
- Do not copy the questions on your answer script. Copy the correct question number.
- This question paper consists of two sections. Section I contains one question with eight parts (a) to (h). All the parts are compulsory. Section II contains six questions numbered 2 to 7. You have to answer any four of these questions.

SECTION I [40 marks]

Attempt all questions from this Section.

Question 1

(a) Name the following:

- | | | |
|-------|---|-----|
| (i) | The plant having sunken stomata | [1] |
| (ii) | The upward movement of water through xylem | [1] |
| (iii) | The exchange of chromatid parts between the maternal and the paternal chromatids of a pair of homologous chromosomes during meiosis | [1] |
| (iv) | The genetic make up of an organism | [1] |
| (v) | The condition in which the cell contents are shrunken. | [1] |

(b) Mention the significant function/use of each of the following:

- | | | |
|-------|------------|-----|
| (i) | Centrosome | [1] |
| (ii) | Lenticles | [1] |
| (iii) | Hydathodes | [1] |
| (iv) | Thylakoids | [1] |
| (v) | Genes. | [1] |

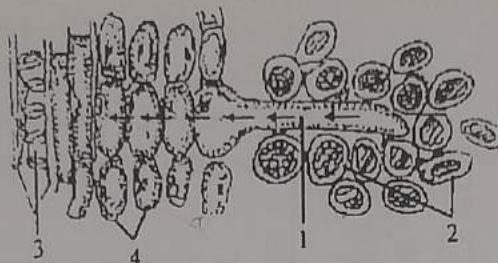
(c) Define each of the following terms:

- | | | |
|-------|------------------|-----|
| (i) | Root pressure | [1] |
| (ii) | Haploid cell | [1] |
| (iii) | Allele | [1] |
| (iv) | Active transport | [1] |
| (v) | Mutation. | [1] |

- (d) Copy and complete the following paragraph by filling in the blanks numbered (1) to (5) with appropriate words/terms: [5]
- To test the leaf for starch, the leaf is boiled in water to (1). It is next boiled in methylated spirit to (2). The leaf is placed in warm water to soften it. It is then placed in a dish and (3) solution is added. The region, which contains starch, turns (4) and the region which does not contain starch, turns (5).
- (e) Given below are five terms in each group. Arrange and rewrite the terms in a logical sequence without changing the first word/s: [5]
- Root hair, endodermis, xylem, cortex, epidermis
 - Interphase, metaphase, telophase, anaphase, prophase
 - Xylem, substomatal space, intercellular space, mesophyll cells, stoma
 - Cytokinesis, S phase, G₁ phase, karyokinesis, G₂ phase
 - Eight histone molecules, chromosome, DNA, nucleosome, chromatin fibres
- (f) State whether the following statements are True or False. If false, rewrite the correct form of the statement by changing the first or last word/s only. [5]
- The genotypic ratio of a dihybrid cross in F₂ generation is 9:3:3:1.
 - Rate of transpiration increases when the atmospheric pressure increases.
 - Mitosis occurs in the reproductive cells.
 - Asters are formed during mitosis in plants.
 - The light independent phase of photosynthesis takes place in grana.
- (g) Match the items in Column A with those which are most appropriate in Column B. Rewrite the matching pairs: [5]

	Column A	Column B
1)	Endosmosis	(a) Flaccid cell
2)	Bleeding	(b) Chromatids on equatorial plane
3)	Metaphase	(c) Polymerisation
4)	Destarched plant	(d) Turgid cell
5)	Starch	(e) Plant without starch
		(f) Cell sap
		(g) Leaves without starch.

- (h) The figure given below is a diagrammatic representation of a part of the cross section of the root in the root hair zone. Study the same and then answer the questions that follow:



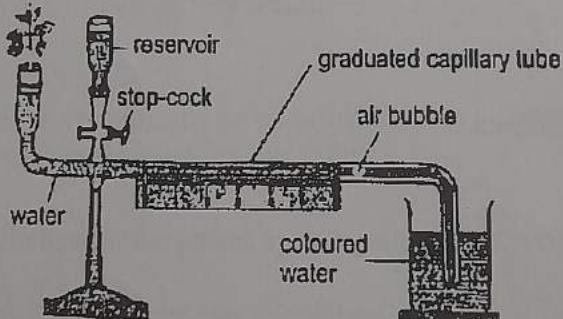
- (i) Name the parts indicated by the guidelines 1 to 4. [2]
- (ii) Name the pressure that is responsible for the movement of water in the direction indicated by the arrows. [½]
- (iii) Name the process that enables the passage of water from the soil into the root hair. [½]
- (iv) Draw a well labelled diagram of the root hair cell as it would appear if excess of fertilizer is added to the soil close to it. [2]

SECTION II [40 marks]

Attempt any four questions from this Section.

Question 2

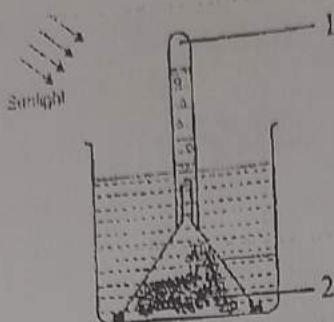
- (a) The diagram of an apparatus given below demonstrates a particular process in plants. Study the same and answer the questions that follow:



- (i) Name the apparatus. [½]
- (ii) Which phenomenon is demonstrated by this apparatus? Explain. [1½]
- (iii) State two limitations of using this apparatus. [1]
- (iv) What is the importance of the air bubble in the experiment? [1]
- (v) What is the role of reservoir? [1]
- (b) (i) Name the four nitrogenous bases of DNA helix. [2]
- (ii) Expand the following: [3]
 - (A) NADP
 - (B) DNA
 - (C) ATP.

Question 3

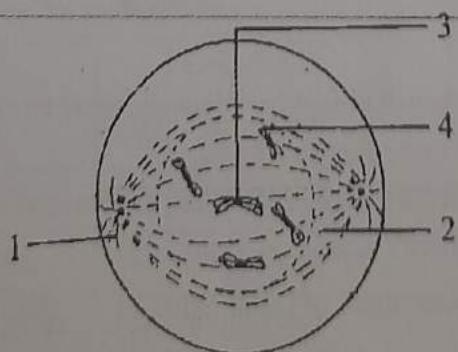
(a) The following diagram demonstrates a physiological process taking place in green plants. Study the diagram and answer the questions that follow:



- (i) What is the aim of the experiment shown? [1]
 - (ii) Explain the physiological process being shown. [1]
 - (iii) Label the parts numbered 1 and 2. [1]
 - (iv) Write a balanced chemical equation for the physiological process shown. [1]
 - (v) What would happen if a pinch of sodium bicarbonate is added to the water in the beaker after some time? [1]
- (b) Briefly explain the following:
- (i) Photophosphorylation [1]
 - (ii) Turgor pressure [1]
 - (iii) Imbibition [1]
 - (iv) Heredity [1]
 - (v) Criss cross inheritance. [1]

Question 4

- (a) Given below is a diagram representing a stage during mitotic cell division in an animal cell:



- (i) Identify the above stage. Give a reason to support your answer. [1]
- (ii) Name the parts labelled 1 – 4. [2]
- (iii) Draw a well labelled diagram of the next stage. [2]

- (b) Differentiate between the following pairs on the basis of what is mentioned within brackets:
- (i) Karyokinesis and Cytokinesis (explain the term) [1]
 - (ii) Nucleosome and Nucleotide (definition) [1]
 - (iii) Turgidity and Flaccidity (definition) [1]
 - (iv) Photosynthesis and Respiration (product formed) [1]
 - (v) Mitosis and Meiosis (number of daughter cells produced) [1]
- Question 5** [1]
- (a) (i) State Mendel's Law of Dominance.
- (ii) A pure tall plant (TT) is crossed with a pure dwarf plant (tt). Draw Punnett squares to show:
- (A) F₁ generation [2]
 - (B) F₂ generation. [1]
- (iii) Give the phenotype of the F₂ generation. [1]
- (iv) Give the phenotypic and genotypic ratio of F₂ generation. [1]
- (b) Give reasons for the following statements:
- (i) The gametes must be produced by meiosis. [1]
 - (ii) Green leaves are thin and broad. [1]
 - (iii) Sex of a child depends upon father. [1]
 - (iv) In some plants leaves may get wavy, rolled or folded on a hot summer day. [1]
 - (v) Wooden doors swell in rainy season. [1]
- Question 6**
- (a) Given below is an experimental set up to demonstrate a particular process. Study the same and answer the questions that follow:
-
- (i) Name the physiological process being studied. [½]
- (ii) Explain the process mentioned above. [1]
- (iii) What would you observe in the experimental set up after an hour? Give a reason to support your answer. [1½]
- (iv) Mention the effect of two external factors on the physiological process mentioned in (i) above. [2]

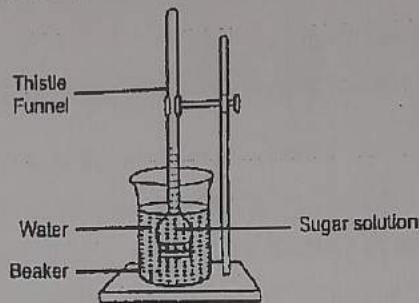
(b) Write the effect of the following factors on the rate of photosynthesis:

- (i) Temperature [1]
- (ii) Carbon dioxide concentration [1]
- (iii) Water content [1]

(c) Explain the term variegated leaves. Give two examples. [2]

Question 7

(a) Given below is the diagram of an apparatus set up to study a very important physiological process. Study the same and answer the questions that follow:



(i) Name the process being studied. [½]

(ii) Define the process. [1]

(iii) What change would you observe in the thistle funnel after about 10 minutes? [1]

(iv) Is sugar solution hypotonic or hypertonic? [½]

(v) Name the part of the plant cell which is represented by the sugar solution. [1]

(vi) Which control experiment can be set up for the comparison? [1]

(b) Draw a well labelled diagram of a chloroplast. [3]

(c) Briefly explain: [2]

(i) Homologous chromosomes

(ii) Heterozygous condition.

THE FIRST COMPARATIVE EXAMINATION 2017-18
CLASS X (ICSE)
PHYSICS
SCIENCE Paper - 1

Time: Two hours

Maximum marks: 80

Instructions:

- * Answers to this paper must be written on the answer script provided separately.
 - * You will NOT be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper.
 - * The time given at the head of this paper is the time allowed for writing the answers.
 - * All subsections of each question must be answered in the correct order.
 - * Please do not write anything on the question paper except your name and roll number.
 - * The intended marks for questions or parts of questions are given in brackets [].
 - * Section I is compulsory. Attempt any four questions from Section II.
-

SECTION I [40 marks]

Attempt all questions from this section.

Question 1

- (a) State the condition when on applying a force on a body the body has:
(i) translational motion (ii) rotational motion. [2]
- (b) The fulcrum of a crowbar of total length 150 cm is at a distance of 25 cm from the load. What is the mechanical advantage of the crowbar? [2]
- (c) (i) On what factor does the position of centre of gravity of a body depend?
(ii) Which lens should be used in the spectacles for a short sighted person? [2]
- (d) State the energy changes that take place in each of the following:
(i) solar cell in use (ii), burning of a candle. [2]
- (e) Can a body have momentum without energy? Give reason. [2]

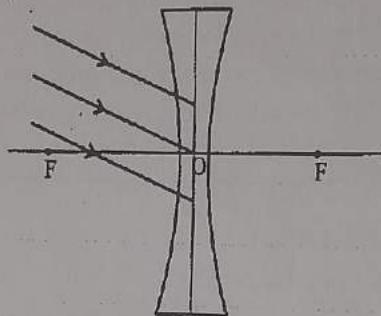
Question 2

- (a) The focal length of a camera lens is 20 cm. How far away from the film must the lens be set in order to photograph an object located at a distance of 100 cm from the lens? [2]
- (b) How is the work done by a force measured when the force is acting:
(i) in the direction of the displacement
(ii) at an angle to the direction of the displacement? [2]
- (c) State whether an object in a denser medium when viewed from a rarer medium appears to be at a smaller or greater distance than the real distance? What will be your answer when the situation is just reverse? [2]

- Give two characteristics of an ideal machine. [2]
- (e) A ray of light passes from water to air. How are the speed and frequency of light affected? [2]

Question 3

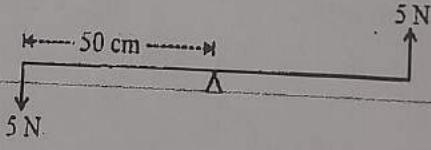
- (a) (i) Write the values of mechanical advantage and velocity ratio of a single fixed pulley in ideal case. [2]
- (ii) If the efficiency of the pulley named in (i) reduces to 80%, which of the two – mechanical advantage or velocity ratio decreases? [2]
- (b) Copy and complete the following diagram: [2]



- (c) Calculate the velocity of light in a glass block of refractive index 1.5. (Velocity of light in air = $3 \times 10^8 \text{ m s}^{-1}$) [2]
- (d) Draw $i - \delta$ graph for refraction through a prism. Also mark the angle δ_{\min} on your graph. The symbols used have their usual meaning. [2]
- To which class of levers does a beam balance belong? Also state the principle on which it works. [2]

Question 4

- (a) Two forces each of 5 N act vertically – one in upward direction and the other one downwards respectively, at the two ends of a uniform metre rule which is pivoted at its mid-point.
- Determine the magnitude of the resultant moment of these forces about the mid-point. [2]
- (b) What do you understand by the statement 'the refractive index of glass is 1.5'? [2]
- (c) Name the physical quantity which can be measured in terms of 'electron volt'. Give the relation between the SI unit of this quantity and the 'electron volt'. [2]
- (d) Name the factors which affect the turning effect of a force on a body. [2]
- (e) It is observed that 1.0 J of energy is spent when an object of mass 0.5 kg is lifted through a height h . What is the value of h ? [Given: $g = 10 \text{ m s}^{-2}$] [2]



SECTION II [40 marks]

Attempt any four questions from this section.

Question 5

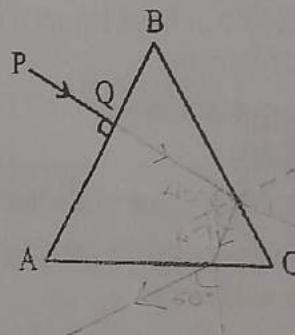
- (a) A block and tackle system has the velocity ratio 3.
- Draw a neat and well labelled diagram of the system.
 - Suggest one way to increase the efficiency of the system. [4]
- (b) (i) When a body moves in a circular path, how much work is done on the body? Give reason. [4]
- (ii) A person climbs a staircase. Is the work done by gravity-positive or negative? [3]
- (c) (i) What is meant by the statement 'the critical angle for glass is 42° '?
- (ii) Name two factors which affect the critical angle for a given pair of media. [3]

Question 6

- (i) Draw a ray diagram showing lateral displacement of a ray of light when it passes through a parallel sided glass slab. [4]
 - (ii) Write any two factors on which lateral displacement depends. [4]
- (b) (i) Which class of levers has practical examples of both the speed multiplier and the force multiplier?
- (ii) Is the long oar used by a boatman, speed multiplier or a force multiplier? Why? [3]
- (c) Name one device in which a total reflecting prism is used. Also illustrate through a ray diagram the action of the prism. [3]

Question 7

- (a) In the diagram given alongside, a ray of light PQ is incident normally on one face AB of an equilateral glass prism ABC.
- Complete the ray diagram showing the emergence of light ray into air after passing through the prism. [$i_c = 42^\circ$] [4]
 - What are the angles of incidence on the faces BC and AC?
- (b) (i) How much work is needed to be done on a ball of mass 100 g to give it a momentum of 5 kg m s^{-1} ?
- (ii) What is the direction of the force which is necessary to move a body in a circular path? [3]
- (c) (i) How is the refractive index of a medium related to the speed of light in it?
- (ii) Light of wavelength 6600 \AA travelling in air gets refracted in water. If the refractive index of water is $4/3$, find the wavelength of light in water. [3]



Question 8

- (a) (i) Write one use of a simple microscope.
(ii) Draw a ray diagram to show how a convex lens can be used as a simple microscope. [4]
- (b) (i) State Snell's law of refraction of light.
(ii) Mention two conditions when a ray of light while passing from one medium to the other medium does not deviate from its path. [3]
- (c) A block and tackle system has 5 pulleys. If an effort of 1000 N is needed in downward direction to raise a load of 4000 N, calculate the:
(i) mechanical advantage
(ii) velocity ratio
(iii) efficiency of the system. [3]

Question 9

- (a) How is the kinetic energy of a moving cart affected if its:
(i) mass is doubled
(ii) velocity is reduced to $1/3^{\text{rd}}$ of the initial velocity? [4]
- (b) Draw a ray diagram to show the application of a converging lens as a camera lens for taking the photograph of say, the students of your class. [3]
- (c) (i) Why is a uniform circular motion an accelerated motion? Explain.
(ii) Is centrifugal force a real force? [3]

Question 10

- (a) (i) If an object of height 7 cm is placed at a distance of 12 cm from a convex lens of focal length 8 cm, find the position of the image using the lens formula.
(ii) The power of a lens is + 2.0 D. Find the focal length and state the kind of the lens. [4]
- (b) (i) Can centre of gravity of a body be situated outside its material?
(ii) Give an example of a body which is in: (i) dynamic equilibrium (ii) static equilibrium. [3]
- (c) Mention the type of mechanical energy possessed by the bob of an oscillating simple pendulum when it is at:
(i) the mean position
(ii) the extreme position
(iii) a position between the mean and the extreme position. [3]

THE FIRST COMPARATIVE EXAMINATION 2017-18
Class X (ICSE)
CHEMISTRY
SCIENCE Paper - 2

Time: Two hours

Maximum marks: 80

- Time: Two hours**

 - Answers to this paper must be written on the answer script provided separately.
 - You will **NOT** be allowed to write during the first 15 minutes.
 - This time is to be spent in reading the question paper.
 - The intended marks for questions or parts of questions are given in brackets [].
 - The time given at the head of this paper is the time allowed for writing the answers.
 - Please do **not** write anything on your question paper except your name and roll number.
 - The paper is divided into two sections. Section I [40 marks] and Section II [40 marks]. Section I is compulsory. Attempt any four questions from Section II.
 - Give balanced equations wherever required.

SECTION I [40 marks]

Attempt all questions from this Section.

Question 1

(c) Calculate the percentage of water of crystallization in Glauber's salt $\text{Na}_2\text{SO}_4 \cdot 10 \text{H}_2\text{O}$ [Na = 23, S = 32, O = 16, H = 1] [2]

(d) Define / State the following: [1]

(i) Catenation [1]

(ii) Gay Lussac's Law. [1]

(e) State your observation for each of the following: [1]

(i) Concentrated hydrochloric acid is added to Copper (II) oxide and then heated. [1]

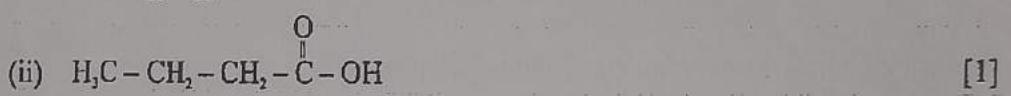
(ii) Ammonium hydroxide solution is added to Zinc chloride solution in small quantity and then in excess. [1]

(iii) Sodium hydroxide solution is added to Magnesium chloride solution. [1]

(iv) Silver nitrate solution is reacted with dilute hydrochloric acid. [1]

(v) Hydrogen chloride reacts with ammonia. [1]

(f) Write the IUPAC names of the following organic compounds:



(g) Calculate the empirical formula of the compound having the percentage composition 2.47% Hydrogen, 38.27% Phosphorus and 59.26% Oxygen. Also calculate the molecular formula if the vapour density of compound is 81. Calculate up to 1 place of decimal only. [H = 1, P = 31, O = 16] [3]

(h) Name the following:

(i) Alkali metal in period 2 [1]

(ii) A bond formed by a shared pair of electrons with both electrons coming from the same atom [1]

(iii) A series of organic compounds, where the successive members follow a regular structural pattern [1]

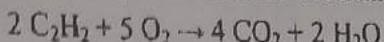
(iv) Oxides which reacts both with acids and alkalies. [1]

(i) Give reasons for each of the following statements:

(i) Electronegativity of elements increases across a period from left to right. [1]

(ii) Hydrogen chloride conducts electricity in aqueous state. [1]

- (j) Calculate the volume of oxygen required and carbon dioxide produced when 18.5 dm³ of ethyne is oxidized according to the following equation: [2]



[All measurements are at stp.]

- (k) Match the items of Column A with those in Column B: [5]

	Column A		Column B
(i)	H ₂ O	(a)	Triple Covalent Bond
(ii)	Chlorine	(b)	Electrovalent Bond
(iii)	Argon	(c)	Turns blue Cobalt chloride paper pink
(iv)	MgCl ₂	(d)	Noble Gas
(v)	N ₂	(e)	Smallest element in period 3

SECTION II [40 marks]

Attempt any four questions from this Section.

Question 2

- (a) The elements are shown with a letter in the periodic table given below.

With reference to the table, answer the following questions:

Group No. →	1	2	13	14	15	16	17	18
Period 3	Q	R	S	T	U	V	W	X
Period 4	Y	Z						

- (i) Identify the element having five valence electrons. [1]
 (ii) Write the formula of the compound formed between R and W. [1]
 (iii) Mention the type of bonding present in the above compound. [1]
 (iv) Identify the most electropositive element. [1]
 (v) Write the formula of the sulphate of Y. [1]

- (b) Draw electron dot diagram for the formation of hydronium ion and state the bonding present in it. [2+1]

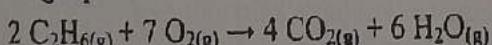
- (c) Distinguish between the following pairs of compounds by giving a chemical test:

- (i) Chlorine and Carbon dioxide [1]
 (ii) Magnesium carbonate and Magnesium chloride [1]

Question 3

- (a) (i) Calculate the percentage of Oxygen in Iron (III) sulphate [Fe₂(SO₄)₃] [Fe = 56, S = 32, O = 16] [2]

- (ii) 450 cc of ethane undergoes complete combustion according to the following equation:

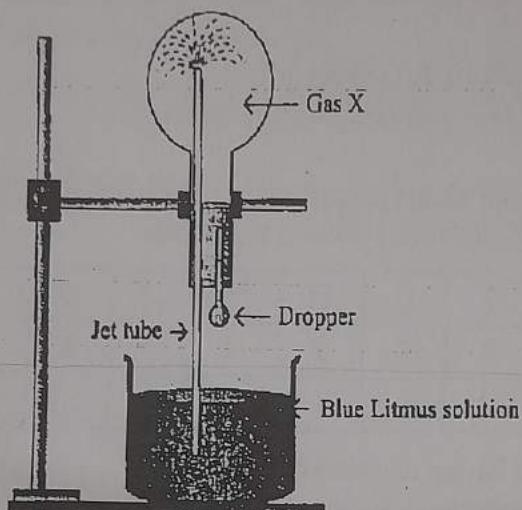


Find the volume of the products obtained. [2]

- (b) (i) Draw the diagram to obtain hydrochloric acid from hydrogen chloride gas. [2]
(ii) Give a scientific reason for the use of the above method. [1]
- (c) State your observations for each of the following:
(i) Ammonium hydroxide is added to Copper (II) sulphate solution in excess. [1]
(ii) Sodium hydroxide solution is added to lead nitrate solution. [1]
(iii) Moist blue litmus is introduced in the jar of chlorine. [1]

Question 4

- (a) (i) Draw the structures of two isomers of butane. [1+1]
(ii) Write the IUPAC names of any two isomers of pentane. [1+1]
- (b) Study the diagram given below and answer the questions that follow:

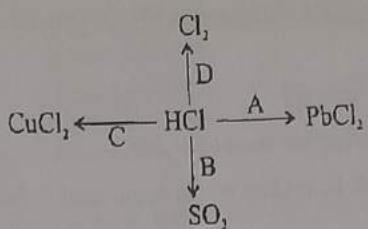


- (i) Name the experiment depicted in the diagram shown above. [1]
(ii) What do you observe during the experiment? [1]
(iii) Identify the gas 'X'. [1]
(iv) What property of the gas 'X' filled in the round bottom flask is demonstrated by this experiment? [1]
- (c) Give reasons for each of the following statements:
(i) Ionization potential decreases down the group. [1]
(ii) Carbon tetrachloride is a non conductor of electricity. [1]

Question 5

- (a) Elements A, B, C and D have atomic numbers 7, 9, 11 and 18 respectively.
(i) Which element out of these forms a cation? [1]
(ii) Write an equation for the formation of ion of element B. [1]
(iii) Mention the type of compound formed between elements A and C. [1]
(iv) Which one of the above elements will have zero value of electronegativity? [1]

- (b) Write balanced chemical equations for the conversions A, B C and D. [4]



- (c) Write the IUPAC name and draw the structural formula of each of the following organic compounds:

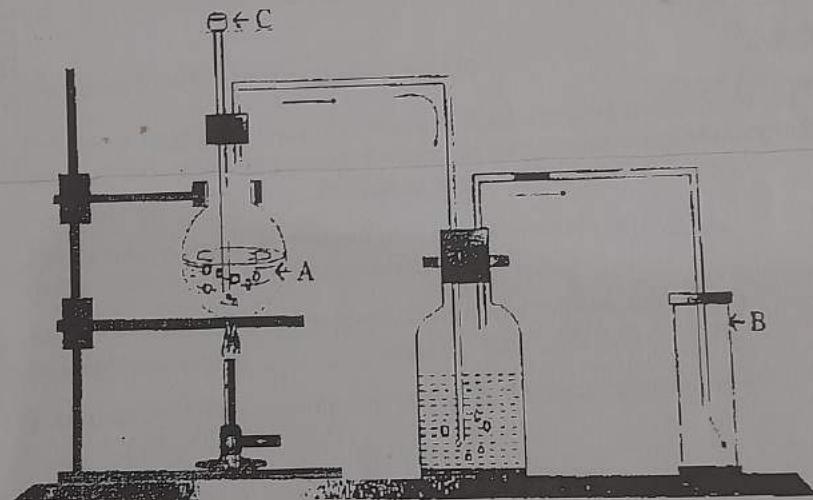
- (i) Acetone
(ii) Propionic Acid.

[1]

[1]

Question 6

- (a) Study the diagram given below and answer the questions that follow for the laboratory preparation of an acidic gas:



- (i) Name A and B. [1+1]
(ii) Name the chemical C and give a reason for its use in the preparation. [1]
(iii) Write a balanced chemical equation for the reaction taking place. [1]

- (b) Choose the odd one out and give a reason for the same:

- (i) Na_2O , PbO , Fe_2O_3 , CaO [1]
(ii) H_2O , CCl_4 , MgCl_2 , CaO [1]
(iii) Cu^{2+} , Fe^{2+} , Fe^{3+} , Pb^{2+} . [1]

- (c) Arrange the following as per the instructions given in the brackets:

- (i) Na, S, P, Al [decreasing order of electron affinity] [1]
(ii) F, C, N, Li [increasing order of ionization potential] [1]
(iii) Mg, Cl, Na, S, Si [decreasing order of atomic size] [1]

Question 7

- (a) Elements M and N have electronic configuration [2, 8, 3] and [2, 8, 6] respectively.
- (i) To which group does N belong? [1]
- (ii) Mention the type of bonding between M and N. [1]
- (iii) Write the equation for the formation of the compound formed between M and N. [1]
- (b) Distinguish between the following pair of compounds using the reagents given in the brackets:
- (i) Iron (II) sulphate and Iron (III) sulphate (*using NaOH solution*) [1]
- (ii) Calcium nitrate and Magnesium nitrate (*using sodium hydroxide solution*) [1]
- (iii) Lead salt and Zinc salt (*using ammonium hydroxide solution*). [1]
- (c) Write the structural formula for each of the following organic compounds:
- (i) Pentan-2-ol [1]
- (ii) Ethyne [1]
- (iii) 2-methyl butane [1]
- (iv) Ethoxyethane [1]