

# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - English  
Maximum Marks - 50

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### General Instructions:

1. This question paper has 8 questions. All questions are compulsory.
  2. This question paper contains THREE sections-Sections A: *READING SKILLS*, Section B: *CREATIVE WRITING SKILLS* and Section C: *LITERATURE*.
  3. Attempt all questions based on specific instructions for each part. Write the correct question number and part thereof in your answer sheet.
  4. Separate instructions are given with each question/part, wherever necessary.
  5. Adhere to the prescribed word limit while answering the questions.
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### Section – A Reading

(12)

#### Q1. Read the following passage carefully.

1. In a room filled with people, each face illuminated by the soft glow of their smartphones, moments drift away like autumn leaves in the wind. The constant hum of notifications fills the air punctuating conversations like an incessant drumbeat. Every vibration or ping sends fingers flying to screens, a response ingrained by years of digital conditioning. The once-reliable tick-tock of analog timepieces has been overshadowed by the constant flicker of notifications on the wrist watch, blurring the boundaries between the virtual and the real.
2. Anxiety gnaws at the edges of consciousness when the phone is out of reach, a phantom limb syndrome that leaves us feeling incomplete without our digital appendage. The fear of missing out permeates every moment spent away from the screen, driving us to constantly check for updates and notifications.
3. Thumbs move with the speed and precision of skillful pianists, tapping out messages and scrolling through feeds with practiced ease. Yet amidst the flurry of activity, the true rhythm of life remains unheard, drowned out by the dissonance of digital noise. The weight of constant connectivity forms a hunch upon our shoulders, a physical manifestation of the burden we carry in an age of information overload. Our minds are perpetually on high alert, scanning for the next wave of excitement that comes with each like, share, or comment.
4. And yet, for all our efforts to stay connected, we find ourselves increasingly isolated in a sea of digital faces. Genuine connections are fleeting, drowned out by the constant clamour for attention. In the pursuit of digital validation, we sacrifice the wealth of lived experience, trading meaningful moments for fleeting glimpses of connection. The true essence of life lies not in the pixels on a screen, but in the depth of human connection and the richness of shared experiences.
5. As we navigate this brave new world of constant connectivity, let us not forget the value of presence and the beauty of being fully engaged in the moments that matter most. For in the end, it is not the number of likes or followers that defines us, but the depth of our connections and the richness of our experiences that truly matter.

**Answer the following questions based on the passage above.**

- (i) What effect do smartphone notifications have on the people in the room as mentioned in paragraph 1? (1)
- (ii) How does the author use the metaphor of 'autumn leaves in the wind' to interpret the passing of time in the setting described? (1)
- (iii) **Read and complete the following sentence suitably.** (1)

The phrase 'a phantom limb syndrome that leaves us feeling incomplete without our digital appendage' suggests that just as an amputee might feel pain in a limb they no longer have, individuals can feel a sense of loss or incompleteness when they are separated from their digital devices.

**Choose the correct response from the two options to complete the sentence. The concern this analogy points towards is about**

- A. a deep (psychological) dependence on technology for a sense of wholeness or connection
  - B. excessive physical damage that can be caused due to constant use of digital devices
- (iv) Complete the following suitably with ONE advantage, with reference to paragraph 2.

Designating specific hours each day to intentionally avoid checking digital devices can help..... (1)

- (v) Why does the writer refer to digital noise as 'dissonance' in paragraph 3? (1)

**Because**

- (a) it creates a jarring and chaotic environment that disrupts focus.
  - (b) it contributes to a sense of overload, overwhelming the senses.
  - (c) it interferes with our ability to engage with meaningful aspects of our life.
  - (d) it induces stress by interrupting with regular updates about the device.
- (vi) Provide ONE textual evidence with reference to paragraph 3, to prove the following. The need to be perpetually engaged with digital notifications manifests in the body. (1)
- (vii) In the line, 'Yet amidst the flurry of activity, the true rhythm of life remains unheard.....' what does the phrase 'true rhythm of life' refer to? (Paragraphs 3-4) (2)
- (viii) Complete the analogy with ONE word from paragraph 4.

whisper quietly ::..... loudly (1)

- (a) validation
- (b) fleeting
- (c) essence
- (d) clamour

- ix) Why is it fair to say that the statement 'And yet, for all our efforts to stay connected, we find (ourselves increasingly isolated in a sea of digital faces) from paragraph 4, employs irony. (1)
- (a) Despite the intent to connect more effectively, the result is the opposite.
- (b) The writer mocks the seriousness with which people approach digital connectivity.
- (c) The writer exaggerates the effects of digital connectivity to highlight its impact.
- (d) Use of 'a sea of digital faces' to symbolically represent digital platforms.
- (x) Assess the potential challenges or benefits of relying on survey outcomes for designing health interventions, as outlined in paragraph 5. (2)

**Section B - Creative Writing Skills**

(9)

**Q2. Attempt ANY ONE of the two (A) or (B)**

(4)

A. You are the Cultural Secretary of your school. Your school is organizing its Annual Day function. Write a notice in about 50 words informing the students about the event and requesting names of those interested in participating. Mention relevant details like date, time, venue, and last date for registration.

**OR**

B. You are Aryan / Arpita, the cultural secretary of St. Xavier's School, Pune. Draft a notice in not more than 50 words informing students about the Inter – School Drama Competition to be held in your school auditorium. Include relevant details like date, time registration process, etc.

**Q3. Attempt ANY ONE of the two (A) or (B)**

(5)

A. Write a letter to the Editor of a National Daily expressing your concern over the increasing air pollution in your city. Suggest suitable measures that can be taken by both the authorities and the citizens. You are Rohan / Rohini, a resident of Green Park, Delhi.

(Word limit: 120-150 words)

**OR**

B. You are Kriti / Kanan, a resident of Green Valley Apartments, Jaipur. You are concerned about the growing noise pollution in your city due to traffic and construction. Write a letter to the Editor of the Jaipur Times, expressing your concern and suggesting possible solutions.

(Word limit: 120-150 words)

**Q4. A**

**Section C Literature (29 Marks)**

**Read the given extracts and answer the questions for ANY ONE of the given two (A) or (B).**

(6)

.... *but soon*  
*put that thought away, and*  
*looked out at young*  
*trees sprinting, the merry children spilling out of their homes,*

(My Mother At Sixty-Six)

- (i) What do you infer from the phrase 'young trees sprinting'? (1)
- (ii) The fact that the poem's narrative style is single sentence, punctuated by commas shows that (1)
- (a) There is only one topic which made the poet fearful.
- (b) There is only one thought which runs through the poem.
- (c) The lines are all being intermingled in the poet's mind.
- (d) Many sub ideas are connected to the main idea of the poem.
- (iii) **Complete the sentence appropriately.** (1)
- Given the poet's emotions, it would be correct to say that the poet's action of looking out of the window.....
- (iv) Select the correct option from those given in brackets, to fill in the blank. By giving trees the attribute of 'running', the poet has..... (personified/glorified)them. (1)
- (v) **Read the Assertion and the Reason below, with reference to the given extract.**
- Assertion** The poet has used the image of young trees deliberately. (1)
- Reason** The poet wants to highlight her mother's old age.
- Choose the correct option regarding their relationship.**
- (a) Both the Assertion and the Reason are true, and the Reason is the correct explanation of the Assertion.
- (b) Both the Assertion and the Reason are true, but the Reason is not the correct explanation of the Assertion.
- (c) The Assertion is true, but the Reason is false.
- (d) The Assertion is false, but the Reason is true.
- (vi) What does the expression 'The merry children spilling out of their homes' symbolize? (1)

**OR**

**Q4. B**

"It would be an exotic moment  
without rush, without engines,  
we would all be together  
in a sudden strangeness."

(Keeping Quiet)

- (i) State the phrase that suggests the following. (1)
- Presently, everyone seems to be in a hurry. Mad noise of engines coming from different types of vehicles. Everyone is involved in multiple activities for material gains.

- (ii) Select the option that has the same literary device as used in 'in a sudden strangeness'. (1)
- (a) Till the sun grows cold, and the stars are old.
  - (b) O! Wonderful for weight and whiteness!
  - (c) And the sea, which appears to have changed less, washed their terribly transient feet.
  - (d) Death, be not proud.

- (iii) Complete the following sentence with reference to the extract. (1)

The exotic moment will be when everyone is still and.....

- (iv) Select the correct option from those given in bracket to fill in the blank.

The poet emphasizes..... (being still/being together) because people would forget their differences in the experience of peace. (1)

- (v) **Read the Assertion and the Reason below, with reference to the given extract.** (1)

**Assertion:** The poet wants to end all activity that makes us selfish.

**Reason:** The poet wants all of us to be a part of the 'exotic' moment.

Choose the correct option regarding their relationship.

- (a) Both the Assertion and the Reason are true and the Reason is the correct explanation of the Assertion.
  - (b) Both the Assertion and the Reason are true, but the Reason is not the correct explanation of the Assertion.
  - (c) The Assertion is true, but the Reason is false.
  - (d) The Assertion is false, but the Reason is true.
- (vi) Why will the moment be 'exotic'? (1)

**Q5. A Read the given extracts and answer the questions for ANY ONE of the given two (A) or (B). (4)**

- A. He said I was unhappy. That made my wife kind of mad, but he explained that he meant the modern world is full of insecurity, fear, war, worry and all the rest of it and that I just want to escape. Well, who doesn't? Everybody I know wants to escape, but they don't wander down into any third level at Grand Central Station. But that's the reason, he said, and my friends all agreed. Everything points to it, they claimed. My stamp collecting, for example; that's a 'temporary refuge from reality.' Well, maybe, but my grandfather didn't need any refuge from reality. *(The Third Level)*

- (i) Complete the sentence appropriately. (1)  
 Sam's explanation to the reaction of Charley's wife was.... in nature. (1)
- (ii) Why didn't Charley's grandfather need refuge from reality? (1)
- (iii) Select the option that signifies the condition of people of the 'modern world' mentioned in the extract. (1)  
 (a) Unsure (b) Anxious (c) Afraid (d) All of these
- (iv) Why did Sam's verdict make Charley's wife mad? (1)

**OR**

B. But I say there are three, because I've been on the third level of the Grand Central Station. Yes, I've taken the obvious step: I talked to a psychiatrist friend of mine, among others, I told him about the third level at Grand Central Station, and he said it was a waking dream wish fulfillment.

- (i) Complete the following sentence with reference to the extract. (1)  
 The psychiatrist explains to Charley that.....
- (ii) Why did the narrator go to a psychiatrist? (1)
- (iii) According to the psychiatrist, waking dream wish fulfillment is the result of..... (1)  
 (a) insecurity and fear  
 (b) excitement and nervousness  
 (c) tragedy and ecstasy  
 (d) happiness and insecurity
- (iv) 'Yes, I've taken the obvious step,' what does the author mean by obvious step? (1)

**Q 6. Read the given extracts and answer the questions for ANY ONE of the given two (A) or (B). (6)**

A. She still has bangles on her wrist, but no light in her eyes. "Ek waqt ser bhar khana bhi nahin khaya," she says, in a voice drained of joy. She has not enjoyed even one full meal in her entire lifetime – that's what she has reaped! Her husband, an old man with a flowing beard, says, "I know nothing except bangles. All I have done is make a house for the family to live in." Hearing him, one wonders if he has achieved what many have failed in their lifetime. He has a roof over his head! The cry of not having money to do anything except carry on the business of making bangles, not even enough to eat, rings in every home. The young men echo the lament of their elders. Little has moved with time, it seems, in Firozabad. Years of mind-numbing toil have killed all initiative and the ability to dream. (Lost Spring)

(i) Identify the line from the text that shows reiteration. (1)

(ii) Select the correct option from those given in bracket to fill in the blank. (1)

The phrase 'carry on' in the extract suggest ..... (to continue something / to fight against)

(iii) Complete the sentence appropriately. (1)

The drudgery of work has destroyed the people of Firozabad's.....

(iv) State whether the following statement is True or False with reference to the extract. (1)

There is no ability to dream in Firozabad because everyone ends up getting eye problems.

(v) The statement 'She still has bangles on her wrist, but no light in her eyes' implies that (1)

(a) She is married but has lost the charm in her eyes

(b) She is a married woman who has lost her grace and beauty

(c) Though she is married, her eyes are devoid of happiness

(d) She is a married woman who has lost her eyesight

(vi) 'He has a roof over his head'. The tone of the author while saying this line is (1)

(a) empathetic (b) pessimistic

(c) optimistic (d) sympathetic

**OR**

B. Listening to them, I see two distinct world - one of the family, caught in a web of poverty, burdened by the stigma of caste in which they are born in; the other a vicious circle of the sahu-kars, the middlemen, the policemen, the keepers of law, the bureaucrats and the politicians. Together they have imposed the baggage on the child that he cannot put down. Before he is aware, he accepts it as naturally as his father. To do anything else would mean to dare. And daring is not part of his growing up. When I sense a flash of it in Mukesh I am cheered. "I want to be a motor mechanic," I will walk, he insists. "Do you also dream of flying a plane?" He is suddenly silent. "No," he says, staring at the ground. *(Lost Spring)*

- (i) Identify the textual clue that allows the reader to infer that children in Firozabad are bound to accept their family tradition. (1)
- (ii) Select the correct option from those given in bracket to fill in the blank. (1)  
Firozabad is divided into two.....worlds of those who are exploited and those who exploit. (varied/distinct)
- (iii) Complete the sentence with an appropriate explanation. (1)  
The writer finds.....
- (iv) What do the given lines in the extract tell us about Mukesh? (1)
- (v) Select the correct option to fill in the blank. (1)  
The role of Sahukars is.....
- (a) to establish the bangle industry
- (b) to lend money at low rate of interest
- (c) to share the burden of the working class
- (d) to lend money at a higher rate of interest
- (vi) Based on the extract, choose the statement that is True. (1)
- (a) Parents encourage their children to dare.
- (b) The writer becomes sad when Mukesh tells her about his dream.
- (c) The politician and middlemen are helpful towards the people of Firozabad.
- (d) Mukesh does not want to become a pilot.

**Q7. Answer the following questions in 40-50 words each. (4x2 = 8)**

- (i) What is the significance of the parting words, "See you soon, Amma"?
- (ii) Why does the author say that Saheb is "no longer his own master"?
- (iii) "I never saw him look so tall", what does this reveal about Franz's feeling towards M. Hamel and the situation in the classroom?
- (iv) In the poem 'keeping quiet', the poet suggest that silence is not associated with total inactivity. What kind of silence does he advocate?

**Q8. Answer ANY ONE of the following two questions in 120-150 words. (1 x 5 = 5)**

A. In what way does the protagonist in The Third Level try to escape reality and what does this reveal about his personality?

**OR**

B. "The Last Lesson" highlights the importance of one's language and identity. Discuss how the story portrays the emotional impact of language loss and the theme of patriotism through the experiences of Franz and his teacher, M Hamel.



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII

Time - 2Hours

Subject - Mathematics (Core)

Maximum Marks - 50

### General Instructions:

1. This Question paper contains -five sections A, B, C, D and E. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 11 MCQ's and 01 Assertion-Reason based questions of 1 mark each.
3. Section B has 3 Very Short Answer (VSA)-type questions of 2 marks each.
4. Section C has 3 Short Answer (SA)-type questions of 3 marks each.
5. Section D has 3 Long Answer (LA)-type questions of 5 marks each.
6. Section E has 2 source based/case based/passage based/integrated units of assessment (4 marks each) with sub parts.

### SECTION-A (1X12=12 MARKS)

1. The solution set of the inequality  $3x + 5y < 4$  is
  - (a) An open half-plane not containing the origin
  - (b) An open half-plane containing the origin
  - (c) The whole XY-plane containing the line  $3x + 5y = 4$
  - (d) A closed half-plane containing the origin
2. If  $A$  and  $B$  are symmetric matrices of same order, then  $(AB^T - 2BA^T)$  is a
  - (a) Skew symmetric matrix
  - (b) Symmetric matrix
  - (c) Neither symmetric nor skew symmetric matrix
  - (d) Null matrix
3. If  $A = \begin{bmatrix} x & 0 \\ 1 & 1 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & 0 \\ 5 & 1 \end{bmatrix}$ , then value of  $x$  for which  $A^2 = B$ , is
  - (a) 1
  - (b) -1
  - (c) 4
  - (d) No real values
4. If  $A$  is a square matrix of order  $3 \times 3$  such that  $|A| = 8$ , then  $|3A| =$ 
  - (a) 8
  - (b) 24
  - (c) 72
  - (d) 216
5. If  $A$  is a square matrix such that  $|A| = 5$ , then  $|A A'|$  is equal to
  - (a) 5
  - (b) 25
  - (c) 125
  - (d) 625
6. The non-zero vectors  $\vec{a}, \vec{b}$ , and  $\vec{c}$  are related by  $\vec{a} = 8\vec{b}$  and  $\vec{c} = -7\vec{b}$ , then the angle between  $\vec{a}$  and  $\vec{c}$  is
  - (a) 0
  - (b)  $\pi$
  - (c)  $\frac{\pi}{4}$
  - (d)  $\frac{\pi}{2}$
7. If angle between  $\vec{a} = \hat{i} - 2\hat{j} + 3\hat{k}$  and  $\vec{b} = 2\hat{i} + \hat{j} + \hat{k}$  is  $\theta$  then the value of  $\sin\theta$  is
  - (a)  $\frac{3}{2\sqrt{7}}$
  - (b)  $-\frac{2}{\sqrt{7}}$
  - (c)  $\frac{4}{3\sqrt{7}}$
  - (d)  $\frac{5}{2\sqrt{7}}$
8. The direction cosines of the line  $\frac{x-1}{2} = \frac{1-y}{3} = \frac{2z-1}{12}$  are:
  - (a)  $\frac{2}{7}, \frac{3}{7}, \frac{6}{7}$
  - (b)  $\frac{2}{\sqrt{157}}, -\frac{3}{\sqrt{157}}, \frac{12}{\sqrt{157}}$
  - (c)  $\frac{2}{7}, -\frac{3}{7}, -\frac{6}{7}$
  - (d)  $\frac{2}{7}, -\frac{3}{7}, \frac{6}{7}$

9. The two lines  $x = ay + b$ ,  $z = cy + d$  and  $x = a'y + b'$ ,  $z = c'y + d'$  are perpendicular to each other, if
- (a)  $ac' + ca' = a'c'$       (b)  $ac' + ca' = a'c'$       (c)  $aa' + cc' = 1$       (d)  $aa' + cc' = -1$
10. The chances to fail in Physics are 20% and the chances to fail in Mathematics are 10%. What are the chances to fail in at least one subject?
- (a) 28%      (b) 38%      (c) 72%      (d) 70%
11. If A and B are two events such that  $A \subset B$  and  $P(B) \neq 0$ , then which of the following is correct?
- (a)  $P\left(\frac{A}{B}\right) = \frac{P(B)}{P(A)}$       (b)  $P\left(\frac{A}{B}\right) < P(A)$       (c)  $P\left(\frac{A}{B}\right) \geq P(A)$       (d) None of these

### ASSERTION - REASONING TYPE QUESTION

In the following question, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

- (a) Both A and R are true and R is the correct explanation of A.  
 (b) Both A and R are true but R is not the correct explanation of A.  
 (c) A is true but R is false.  
 (d) A is false but R is true.
12. The corner points of the feasible region for an L.P.P. are (60, 0), (120, 0), (60, 30) and (40, 20). The objective function  $Z = ax + by$ , where,  $a, b > 0$ , has maximum value 600 at points (120, 0) and (60, 30).  
**Assertion (A):** Minimum value of  $Z = 300$   
**Reason (R):**  $a = 5, b = 10$

### SECTION B (2 X 3 = 6 Marks)

13. The corner points of the feasible region determined by the system of linear constraints are (0, 3), (1, 1) and (3, 0). Let  $Z = px + qy$ , where  $p, q > 0$ . Find the condition in  $p$  and  $q$ , so that the minimum of  $Z$  occurs at (3, 0) and (1, 1).
14. Find the value of the determinant  $\begin{vmatrix} 1 & 1 & 1 \\ 1 & 1 + \sin x & 1 \\ 1 + \cos x & 1 & 1 \end{vmatrix}$ .

15. Find a vector  $\vec{c}$ , which is perpendicular each of the vector  $\vec{a} = 2\hat{i} + 5\hat{j} - 6\hat{k}$  and  $\vec{b} = \hat{i} + \hat{j} + \hat{k}$  and magnitude of vector  $\vec{c}$  is 6.

OR,

If  $\vec{a}, \vec{b}$  and  $\vec{c}$  are three vectors such that  $\vec{a} + \vec{b} + \vec{c} = \vec{0}$  and  $|\vec{a}| = 2, |\vec{b}| = 3, |\vec{c}| = 5$ , then find the value of  $\vec{a} \cdot \vec{b} + \vec{b} \cdot \vec{c} + \vec{c} \cdot \vec{a}$

### SECTION -C (3 X 3 = 9 Marks)

16. Minimise  $Z = x + 2y$ , subject to  $2x + y \geq 3, x + 2y \geq 6, x, y \geq 0$ , and show that the minimum of  $Z$  occurs at more than two points.
17. Let  $\vec{a} = 2\hat{i} - \hat{j} - 2\hat{k}$  and  $\vec{b} = 7\hat{i} + 2\hat{j} - 3\hat{k}$ , then express  $\vec{b}$  in the form of  $\vec{b} = \vec{c} + \vec{d}$ , where  $\vec{c}$  is parallel to  $\vec{a}$  and  $\vec{d}$  is perpendicular to  $\vec{a}$ .
18. If  $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & -2 \\ a & 2 & b \end{bmatrix}$  is a matrix satisfying  $AA^T = 9I_3$ , then find the values of  $a$  and  $b$ .

OR,

If  $A = \begin{bmatrix} 0 & -\tan \frac{\alpha}{2} \\ \tan \frac{\alpha}{2} & 0 \end{bmatrix}$  and  $I$  is the identity matrix of order 2, show that

$$I + A = (I - A) \begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}.$$

**SECTION -D ( 5 x 3 = 15 Marks )**

19. Find the perpendicular distance of the point  $P(1, 2, 3)$  from the line  $\frac{x-6}{3} = \frac{y-7}{2} = \frac{z-7}{-2}$ . Also, find equation of perpendicular and the image of  $P$  in the given line.

**OR,**

Find the shortest distance between the lines  $\vec{r} = (8\hat{i} - 9\hat{j} + 10\hat{k}) + \lambda(3\hat{i} - 16\hat{j} + 7\hat{k})$  and

$\vec{r} = (15\hat{i} + 29\hat{j} + 5\hat{k}) + \mu(3\hat{i} + 8\hat{j} - 5\hat{k})$ . Also, find the equation of the line of shortest distance.

20. A shopkeeper sells three types of flower seeds A, B and C. They are sold as a mixture, where the proportions are 4:4:2, respectively. The germination rates of the three types of seeds are 45%, 60% and 35%. Calculate the probability

(i) of a randomly chosen seed to germinate. [1.5]

(ii) that it will not germinate given that the seed is of type C. [1.5]

(iii) that it is of the type B, given that a randomly chosen seed does not germinate. [2]

21. If  $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 2 & -3 \\ 2 & -1 & 3 \end{bmatrix}$  and  $f(x) = x^3 - 6x^2 + 5x + 11$ , then find  $f(A)$ .

**SECTION - E ( 4 X 2 =8 Marks )**

This section comprises 2 case study based questions of 4 marks each.

**Case Study -1**

22. **The reliability of a COVID PCR test is specified as follows:**

Of people having COVID, 90% of the test detects the disease but 10% goes undetected. Of people free of COVID, 99% of the test is judged COVID negative, but 1% are diagnosed as showing COVID positive. From a large population of which only 0.1% have COVID, one person is selected at random, given the COVID PCR test, and the pathologist report him/her as COVID positive.

**Based on the above information, answer the following:**

I. What is the probability of the 'person to be tested as COVID positive' given that 'he is actually having COVID'? [1]

II. What is the probability that the 'person is actually not having COVID'? [1]

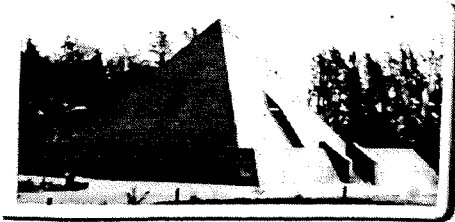
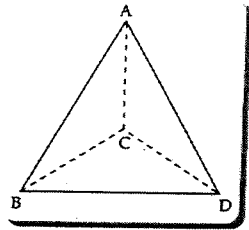
III. What is the probability that the 'person is actually having COVID' given that 'he is tested as COVID positive'? [2]

**OR,**

III. What is the probability that the 'person is actually does not having COVID' given that 'he is tested as COVID positive'? [2]

### Case Study -2

23. A building of a multinational company is to be constructed in the form of a triangular pyramid, ABCD as shown in the figure. A temple is in the form of a triangular pyramid with floor ABD and vertex C.



Let its angular points are A (3, 0, 1), B (-1, 4, 1), C (5, 2, 3) and D (0, -5, 4) and G be the point of intersection of the medians of triangle BCD.

**Based on the above data, answer the following:**

- I. Find the length of the vector  $\overrightarrow{AG}$ . [1]
- II. Find the coordinates of the point G. [1]
- III. Find the area of the triangle ABC (in sq. units) [2]
- OR,**
- III. Find the area of the triangle BCD (in sq. units) [2]



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QUALIFYING EXAMINATION (2025-26)

Class - XII

Time - 2 Hours

Subject - Mathematics (Applied)

Maximum Marks - 50

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3. Section B has 3 Very Short Answer (VSA) - type questions of 2 marks each.
4. Section C has 3 Short Answer (SA) - type questions of 3 marks each.
5. Section D has 3 Long Answer (LA) - type questions of 5 marks each.
6. Section E has 2 case based study questions (4 marks each) with sub parts.

### SECTION - A

1. The ratio must a grocer mix two varieties of pulses costing Rs.85 per kg and Rs.100 per kg respectively so that to get a mixture worth Rs.92 per kg is  
(a) 7:8 (b) 8:7 (c) 5:7 (d) 7:5
2. If a man rows 32 km downstream and 14 km upstream in 6 hours each, then the speed of the stream is  
(a) 2 km/h (b) 1.5 km/h (c) 2.5 km/h (d) 2.25 km/h
3. Pipe A can fill a tank 6 times faster than a pipe B. If B can fill a tank in 21 minutes, then the time taken by both the pipes together to fill the tank is  
(a) 3 minutes (b)  $4\frac{1}{2}$  minutes (c) 7 minutes (d) 9 minutes
4. If  $A = \begin{bmatrix} x & 0 \\ 1 & 1 \end{bmatrix}$  and  $B = \begin{bmatrix} 4 & 0 \\ -1 & 1 \end{bmatrix}$ , then value of  $x$  for which  $A^2 = B$  is  
(a) -2 (b) 2 (c) 2 or -2 (d) 4
5. If A and B are two non - zero square matrices of same order such that  $(A + B)^2 = A^2 + B^2$ , then  
(a)  $AB = 0$  (b)  $AB = -BA$  (c)  $BA = 0$  (d)  $AB = BA$
6. If  $\begin{bmatrix} a & c & 0 \\ b & d & 0 \\ 0 & 0 & 5 \end{bmatrix}$  is a scalar matrix, then the value of  $a + 2b + 3c + 4d$  is  
(a) 0 (b) 5 (c) 10 (d) 25
7. If for a square matrix A,  $A^2 - 3A + I = 0$  and  $A^{-1} = xA + yI$ , then the value of  $x + y$  is  
(a) -2 (b) 2 (c) 3 (d) -3

8. If  $A = \begin{bmatrix} 2 & 3 \\ 5 & -2 \end{bmatrix}$  be such that  $A^{-1} = kA$  then k is equal to  
 (a) 19 (b)  $\frac{1}{19}$  (c)  $-\frac{1}{19}$  (d) -19
9. In an LPP. If the objective function  $Z = ax + by$  has same maximum value on two corner points of the feasible region, then the number of points at which maximum value of Z occurs is  
 (a) 0 (b) 2 (c) finite (d) infinite
10. If A is a square matrix of order  $3 \times 3$  such that  $|A| = 4$ , then  $|3A|$  is equal to  
 (a) 27 (b) 81 (c) 108 (d) 256

### ASSERTION - REASONING TYPE QUESTIONS

Statement I is called Assertion (A) and Statement II is called Reason (R). Read the given statements carefully and choose the correct answer from the options given below:

- a) Both the Statements are true and Statement II is the correct explanation of Statement I.  
 b) Both the Statements are true and Statement II is not the correct explanation of Statement I.  
 c) Statement I is true, Statement II is false.  
 d) Statement I is false, Statement II is true.

11. **Assertion (A):** If  $60 \equiv 4 \pmod{m}$ , then possible values of m are 2,4,7,8,14,28,56  
**Reason (R):** If  $a \equiv b \pmod{n}$ , then  $a - b$  is an integral multiple of n, where  $n \in \mathbb{I}, n \geq 1$

12. **Assertion (A):** The value of x satisfying  $\begin{vmatrix} x & 2 \\ 18 & x \end{vmatrix} = \begin{vmatrix} 6 & 2 \\ 18 & 6 \end{vmatrix}$  are  $\pm 6$

**Reason (R):** If  $A = \begin{vmatrix} a & b \\ c & d \end{vmatrix}$  then  $|A| = ad - bc$

### SECTION - B

13. Three pipes A, B and C are installed to fill a tank. Pipes A and B open together can fill the tank in same time in which C can alone fill the tank. If pipe B can fill the tank 15 minutes faster than pipe A and 5 minutes slower than pipe C, then find the time required by pipe A to fill the tank alone.
14. How many kg of sugar costing Rs.45 per kg must be mixed with 30kg sugar costing Rs.35 per kg so that there may be a gain of 12% by selling the mixture at Rs.47.04 per kg?
15. If  $A = \begin{bmatrix} 1 & 0 \\ -1 & 7 \end{bmatrix}$ , find the value of k such that  $A^2 - 8A + kI = 0$ .

OR

Find a  $2 \times 2$  matrix B such that  $B \begin{bmatrix} 1 & -2 \\ 1 & 4 \end{bmatrix} = 6I_2$

### SECTION - C

16. A bottle is full of dettol. One third of it is taken out then an equal amount of water is poured into the bottle to fill it. This operation is repeated four times. Find the ratio of dettol and water in the bottle.

17. Given  $A = \begin{bmatrix} 2 & -3 \\ -4 & 7 \end{bmatrix}$ , compute  $A^{-1}$  and show that  $2A^{-1} = 9I - A$

OR

Express the following matrix as the sum of symmetric and skew - symmetric matrix

$$\begin{bmatrix} 3 & 2 & 5 \\ 4 & 1 & 3 \\ 0 & 6 & 7 \end{bmatrix}$$

18. Find the values of  $x, y, z$  if the matrix  $A = \begin{bmatrix} 0 & 2y & z \\ x & y & -z \\ x & -y & z \end{bmatrix}$  satisfies the equation  $A^T \cdot A = I_3$ .

**SECTION - D**

19. A dietician wishes to mix two types of foods in such a way that the vitamin contents of the mixture contains atleast 8 units of vitamin A and 10 units of vitamin C. Food I contains 2 units/kg of vitamin A and 1 unit/kg of vitamin C. Food II contains 1 unit/kg of vitamin A and 2 units/kg of vitamin C. It costs Rs.50 per kg to purchase food I and Rs.70 per kg to purchase food II. Determine the minimum cost of the mixture.

20. If  $A = \begin{bmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 0 & 3 \end{bmatrix}$ , then show that  $A^3 - 6A^2 + 7A + 2I = 0$

21. Using matrix method, solve the following system of equations

$$\begin{aligned} x - 2y &= 10 \\ 2x + y + 3z &= 8 \\ -2y + z &= 7 \end{aligned}$$

OR

Solve the following linear equations by Cramer's rule

$$\begin{aligned} 6x + y - 3z - 5 &= 0 \\ x + 3y - 2z - 5 &= 0 \\ 2x + y + 4z - 8 &= 0 \end{aligned}$$

**SECTION - E**

**CASE STUDY 1**

22. Three schools DPS, CVC and KVS decided to organize a fair for collecting money for helping the flood victims. They sold handmade fans, mats and plates from recycled material at a cost of Rs. 25, Rs. 100 and Rs. 50 each respectively. The numbers of articles sold are given as

School/Article	DPS	CVC	KVS
Handmade fan	40	25	35
Mats	50	40	50
Plates	20	30	40

Let matrices D, C and K of order  $3 \times 1$  each represents the number of articles sold by three schools DPS, CVC and KVS respectively. Let matrix M of order  $1 \times 3$  represent the selling price of different items.

Based on the information given above, using matrix operations, answer the following questions:

- (a) What is the total money collected by the school DPS? [1]  
 (b) What is the total amount of money collected by schools CVC and KVS? [1]

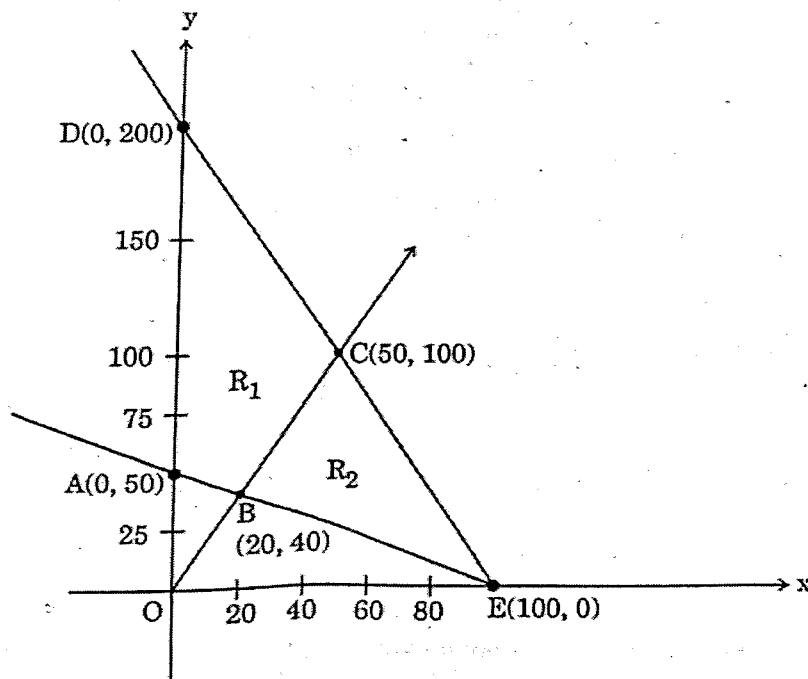
(c) What is the total amount of money collected by all three schools DPS, CVC and KVS? [2]

OR

(c) If the number of handmade fans and plates are interchanged for all the schools, then what is the total money collected by all schools? [2]

### CASE STUDY 2

23. In number theory, it is often important to find factors of an integer  $N$ . The number  $N$  has two trivial factors, namely 1 and  $N$ . Any other factor, if exists, is called non-trivial factor of  $N$ . Naresh has plotted a graph of some constraints (linear in equations) with points  $A(0, 50)$ ,  $B(20, 40)$ ,  $C(50, 100)$ ,  $D(0, 200)$  and  $E(100, 0)$ . This graph is constructed using three non-trivial constraints and two trivial constraints. One of the non-trivial constraints is  $x + 2y \geq 100$ .



Based on the information given above, answer the following questions

(a) What are the two trivial constraints? [1]

(b) If  $R_1$  is the feasible region, then find the maximum value of the objective function  $Z = 5x + 2y$ . [1]

(c) If  $R_1$  is the feasible region, then what are the other two non-trivial constraints? [2]

OR

(c) If  $R_2$  is the feasible region, then what are the other two non-trivial constraints? [2]



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

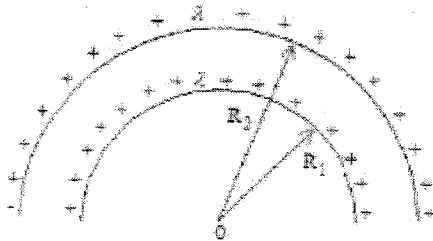
Subject - Physics  
Maximum Marks- 50

### General Instructions

1. There are 24 questions in all. All questions are compulsory.
2. This question paper has five sections: Section A, Section B, Section C, Section D and Section E.
3. All the sections are compulsory.
4. Section A contains twelve questions, ten MCQs and two Assertion Reasoning based of 1 mark each, Section B contains four questions of two marks each, Section C contains four questions of three marks each, Section D contains two case study based questions of four marks each and Section E contains two long answer questions of five marks each.
5. There is no overall choice. However, an internal choice has been provided in one question in Section B, one question in Section C, one question in each CBQ in Section D and all two questions in Section E. You have to attempt only one of the choices in such questions.
6. Use of calculators is not allowed.

### SECTION - A

1. The electric potential at the centre of two concentric half rings of radii  $R_1$  and  $R_2$ , having same linear charge density  $\lambda$  is:



- (a)  $\lambda/2\epsilon_0$                       (b)  $\lambda/4\epsilon_0$                       (c)  $2\lambda/\epsilon_0$                       (d)  $\lambda/\epsilon_0$
2. If two charges  $q_1$  and  $q_2$  are separated with distance 'd' and placed in a medium of dielectric constant K. What will be the equivalent distance between charges in air for the same electrostatic force?  
(a)  $2d\sqrt{k}$                       (b)  $1.5d\sqrt{k}$                       (c)  $d\sqrt{k}$                       (d)  $k\sqrt{d}$
  3. Two uniformly charged spherical conductors A and B of radii 5 mm and 10 mm are separated by a distance of 2 cm. If the spheres are connected by a conducting wire, then in equilibrium condition, the ratio of the magnitudes of the electric fields at the surface of the sphere A and B will be:  
(a) 1: 2                      (b) 2: 1                      (c) 1: 1                      (d) 1: 4
  4. A dielectric of dielectric constant K is introduced such that half of its area of a capacitor of capacitance C is occupied by it. The new capacity is  
(a) 2C                      (b)  $\frac{C}{2}$                       (c)  $\frac{(1+K)C}{2}$                       (d)  $2C(1+K)$

5. If a charge  $q$  is placed at the centre of a closed hemispherical non-conducting surface, the total flux passing through the flat surface would be:  
 (a)  $q/\epsilon_0$  (b)  $q/2\epsilon_0$  (c)  $q/4\epsilon_0$  (d) zero
6. Four charges equal to  $-Q$  are placed at the four corners of a square and a charge  $q$  is at its centre. If the system is in equilibrium, the value of  $q$  is  
 (a)  $\frac{-Q}{4}(1+2\sqrt{2})$  (b)  $\frac{Q}{4}(1+2\sqrt{2})$  (c)  $\frac{-Q}{2}(1+2\sqrt{2})$  (d)  $\frac{Q}{2}(1+2\sqrt{2})$
7. A 1 m long wire is broken into two unequal parts X and Y. The X part of the wire is stretched into another wire W. Length of W is twice the length of X and the resistance of W is twice that of Y. Find the ratio of length of X and Y.  
 (a) 1: 4 (b) 1:2 (c) 4:1 (d) 2:1
8. If a charged spherical conductor of radius 10 cm has potential  $V$  at the surface then the potential at a distance of 5 cm from the centre will be:  
 (a)  $V/2$  (b) Zero (c)  $V/10$  (d)  $V$
9. A current  $I$  flow through a uniform wire of diameter  $d$  when the mean electron drift velocity is  $V$ . The same current will flow through a wire of diameter  $d/2$  made of the same material if the mean drift velocity of the electron is:  
 (a)  $V/4$  (b)  $V/2$  (c)  $2V$  (d)  $4V$
10. A parallel plate capacitor is charged. If the plates are pulled apart  
 (a) The Capacitance increases  
 (b) The potential difference increases  
 (c) The total charge increase  
 (d) The charge and the potential difference remains the same

For Questions 11 and 12, two statements are given –one labelled Assertion (A) and other labelled Reason (R). Select the correct answer to these questions from the options as given below.

- a) If both Assertion and Reason are true and Reason is correct explanation of Assertion.  
 b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.  
 c) If Assertion is true but Reason is false.  
 d) If both Assertion and Reason are false.

11. Assertion A: Alloys such as constantan and manganin are used in making standard resistance coils.

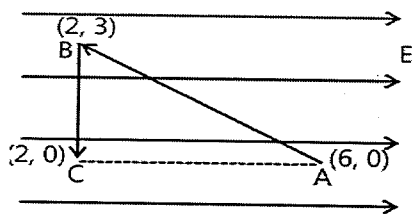
Reason R: Constantan and manganin have very small value of temperature coefficient of resistance.

12. Assertion : Acceleration of charged particle in non-uniform electric field does not depend on velocity of charged particle.

Reason : Charge is an invariant quantity That is amount of charge on particle does not depend on frame of reference.

### SECTION - B

13. A charge  $Q$  is to be divided on two objects. What should be the value of the charges on the two objects, so that the force between them can be maximum?
14. A test charge ' $q$ ' is moved without acceleration from A to C along the path from A to B and then from B to C in electric field  $E$  as shown in the figure. (i) Calculate the potential difference between A and C. (ii) At which point (of the two) is the electric potential more and why?



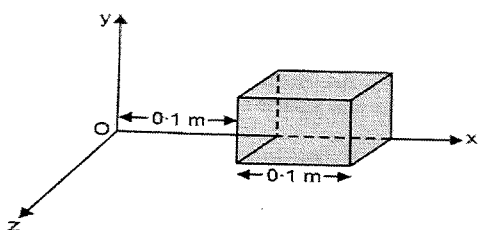
**OR**

Two isolated metal spheres A and B have radii  $R$  and  $2R$  respectively, and same charge  $q$ . Find the ratio of energy densities of electric field for the two spheres just outside the surface of the spheres.

15. The electric field components due to a charge inside the cube of side  $0.1\text{ m}$  are

$$E_x = \alpha x, \text{ where } \alpha = 500 \frac{\text{N}}{\text{C m}}$$

$$E_y = 0, E_z = 0$$



Calculate the flux through the cube and the charge inside the cube.

16. Two square metal plates A and B are of same thickness and material. The side of B is twice that of A. These are connected in series, as shown in Figure below. Find the ratio ( $R_A/R_B$ ) of the resistance of the two plates.

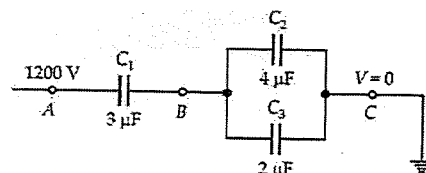
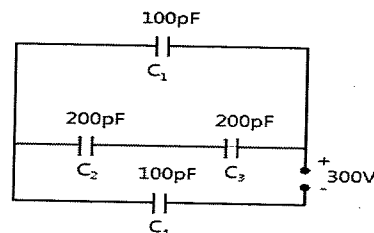


### SECTION - C

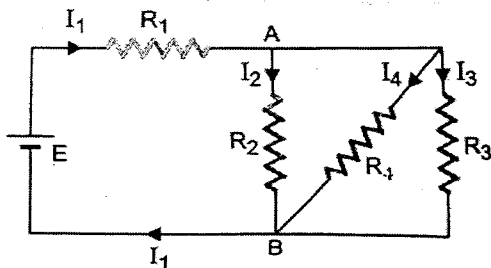
17. Obtain the equivalent capacitance of the network in figure. For a  $300\text{ V}$  supply, determine the charge and voltage across each capacitor

**OR**

In the circuit shown in Figure, if the point C is earthed and point A is given a potential of  $+1200\text{ V}$ , find the charge on each capacitor and the potential at the point B.



18. In the circuit shown below  $R_1 = 4\Omega$ ,  $R_2 = R_3 = 15\Omega$ ,  $R_4 = 30\Omega$  and  $E = 10V$  calculate the equivalent resistance of the circuit and current in each resistor.



19. Two similar balls, each of mass  $m$  and charge  $q$ , are hung from a common point by two silk threads, each of length  $l$ . Prove that separation between the ball is

$$x = \left[ \frac{q^2 l}{2\pi\epsilon_0 m g} \right]^{1/3}$$

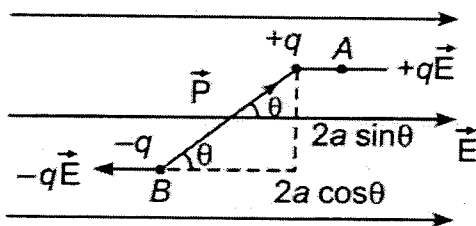
If  $\theta$  is the angle made by the thread with the vertical.

20. Derive an expression for the electric field on the axial line of a short dipole. What is a ratio of magnitude of electric fields of a short dipole at the axial and equatorial points?

#### SECTION - D

21. Read the following paragraph and answer the questions that follow.

When electric dipole is placed in uniform electric field, its two charges experience equal and opposite forces, which cancel each other and hence net force on electric dipole in uniform electric field is zero. However these forces are not collinear, so they give rise to some torque on the dipole. Since, net force on electric dipole in uniform electric field is zero, so no work is done in moving the electric dipole in uniform electric field. However some work is done in rotating the dipole against the torque acting on it.



- i) An electric dipole of moment  $p$  is placed parallel to the uniform electric field  $E$ . The amount of work done in rotating the dipole by  $90^\circ$  is  
 (a)  $2pE$                       (b)  $pE$                       (c)  $pE/2$                       (d)  $-pE$
- ii) An electric dipole placed in a non-uniform electric field may experience  
 (a) both a torque and a net force  
 (b) only a force but no torque  
 (c) only a torque but no net force  
 (d) no torque and no net force

- iii) An electric dipole of moment  $p$  is placed in an electric field of intensity  $E$ . The dipole acquires a position such that the axis of the dipole makes an angle  $\theta$  with the direction of the field. Assuming that the potential energy of the dipole to be zero when  $\theta = 90^\circ$ , then the torque and the potential energy of the dipole will respectively be
- (a)  $pE \sin \theta, -pE \cos \theta$     (b)  $pE \sin \theta, -2pE \cos \theta$   
(c)  $pE \sin \theta, 2pE \cos \theta$     (d)  $pE \cos \theta, -pE \sin \theta$

OR

- iii) The distance between  $H^+$  and  $Cl^-$  ions in HCl molecule is  $1.28 \text{ \AA}$ . What will be the potential due to this dipole at a distance of  $12 \text{ \AA}$  on the axis of dipole
- (a) 0.13 V                      (b) 1.3 V                      (c) 13 V                      (d) 130 V

- iv) An electric dipole is kept at the origin as shown in the diagram. The points A, B, C are on a circular arc with the centre of curvature at the origin. If the electric fields at A, B and C respectively are  $\vec{E}_1, \vec{E}_2, \vec{E}_3$ , then which of the following is incorrect? ( $d \gg l$ )

- (a)  $\vec{E}_1 = -\vec{E}_3$                       (b)  $\vec{E}_1 = -\vec{E}_2/2$   
(c)  $\vec{E}_1 = -\vec{E}_3$                       (d)  $\vec{E}_3 = -2\vec{E}_2$



22. Read the following paragraph and answer the questions that follow.

Ohm's law is obeyed by many substances, but one cannot say that it is a fundamental law of nature. It is a basic law regarding flow of the current which defines resistance as constant of proportionality. The dependence of  $R$  was also discussed by Ohm's law. The potential applied across a conductor and current through it was also one of the important points discussed in this law.

- (i) What will be resistance across a slab if area is doubled?
- (a) Resistance will be doubled.                      (b) Resistance will be halved.  
(c) No change                      (d) Resistance will be zero.
- (ii) How does the current density ' $j$ ' vary if area is doubled?
- (a)  $j$  becomes half.                      (b)  $j$  will be doubled.  
(c)  $j$  does not vary.                      (d)  $j$  only depends on current.
- (iii) Ohm's law is true.
- (a) For metallic conductors at low temperature.  
(b) For metallic conductors at high temperature.  
(c) For electrolytes when current passes through them.  
(d) For diode when current flows.
- (iv) For Ohm's law is obeyed, then what is the relation between electric field ( $E$ ) and drift velocity ( $v_d$ )?
- (a)  $v_d \propto E^2$                       (b)  $v_d \propto \sqrt{E}$                       (c)  $v_d \propto E/2$                       (d)  $v_d \propto E$

OR

Two nichrome wires of equal lengths but having radii in the ratio 1: 3 are connected in series across an electric cell. The drift velocities of free electrons through them will be in the ratio of

- (a) 3:1                      (b) 1:3                      (c) 4:9                      (d) 9:1

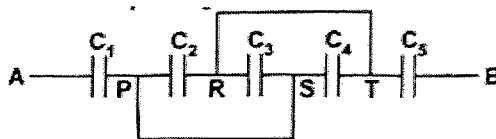
**SECTION - E**

23. (i) Derive a relation between electric current and drift velocity and hence deduce Ohm's law and hence obtain the expression for resistivity in terms of number density of free electron and relaxation time
- (ii) A battery of 10 V and negligible internal resistance is connected across the diagonally opposite corners of a cubical network consisting of 12 resistors each of resistance  $1\Omega$ . Determine the equivalent resistance of the network and the current along each edge of the cube.

**OR**

- (a) Given the resistances of  $1\Omega$ ,  $2\Omega$ ,  $3\Omega$ ; how will you combine them to get the equivalent resistance of (i)  $11/3\Omega$  (ii)  $11/5\Omega$  (iii)  $6\Omega$  (iv)  $6/11\Omega$ . (draw circuit diagram only)
- (b) A potential difference  $V$  is applied across a conductor of length  $L$  and diameter  $D$ . How are the electric field  $E$  and the resistance  $R$  of the conductor affected when (i)  $V$  is halved (ii)  $L$  is halved (iii)  $D$  is doubled. Justify your answer with the help of formula.
24. (a) Deduce an expression for the capacitance of a parallel plane capacitor when a dielectric slab is inserted between the plates assume that the thickness is less than plate separation what will happen if the dielectric fills the entire space between the plates
- (b) Find equivalent capacitance between A and B in the combination given below. Each capacitor is of  $2\mu\text{F}$  capacitance. If a dc source of 7 V is connected across AB, how much charge is drawn from the source and what is the energy stored in the network.

**OR**



- (a) Using Gauss Theorem show mathematically that for any point outside the shell, the field due to a uniformly charged spherical shell is same as the entire charge on the shell, is concentrated at the centre. Plot a graph showing the variation of electric field due to charged spherical shell.
- (b) A particle of mass  $m$  and carrying charge  $-q_1$  is moving around a charge  $+q_2$  along a circular path of radius  $r$ . Prove that the period of revolution of the charge  $-q_1$  about  $+q_2$  is given by

$$T = \sqrt{\frac{16\pi^3 \epsilon_0 m r^3}{q_1 q_2}}$$



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Chemistry  
Maximum Marks - 50

**General Instruction:**

- (i) Section A: Q1 to Q12 are MCQs and Reason-Assertion type carrying 1 mark each.
- (ii) Section B: Q13 to Q18 are short answer questions and carry 2 marks each.
- (iii) Section C: Q19 to Q22 are short answer questions and carry 3 marks each.
- (iv) Section D: Q23 is case based questions carrying 4 marks.
- (v) Section E: Q24 to Q25 are long answer questions carrying 5 marks each.
- (vi) Question paper comprises of five sections A, B, C, D and E.
- (vii) Use of calculators are not permitted.

**SECTION : A**

1. Which of the following having same Van't Hoff factor as that of  $K_3[Fe(CN)_6]$  ?
  - a)  $Al_2(SO_4)_3$
  - b)  $K_2SO_4$
  - c)  $Al(NO_3)_3$
  - d) None of the mentioned
  
2. Which one of the following gases has the lowest value of Henry's law constant?
  - a)  $N_2$
  - b) He
  - c)  $H_2$
  - d)  $CO_2$
  
3. Which of the following 0.10m aqueous solutions will have the lowest freezing point?
  - a)  $Al_2(SO_4)_3$
  - b)  $C_6H_{12}O_6$
  - c) KCl
  - d)  $C_{12}H_{22}O_{11}$
  
4. A sample of drinking water was found to be severely contaminated with chloroform,  $CHCl_3$ , supposed to be carcinogenic in nature. The level of contamination was 15 ppm (by mass). Molality of chloroform in the water sample will be
  - a)  $1.25 \times 10^{-4}$
  - b)  $7.23 \times 10^{-5}$
  - c)  $2.15 \times 10^{-4}$
  - d)  $5.12 \times 10^{-4}$
  
5. In a dry cell, which of the following is the electrolyte?
  - a) Potassium hydroxide
  - b) Sulphuric acid
  - c) Ammonium chloride
  - d) Manganese dioxide

6. For a cell reaction involving a two-electron change, the standard e.m.f. of the cell is found to be 0.295 V at 25°C. The equilibrium constant of the reaction at 25°C will be
- $1 \times 10^{-10}$
  - $29.5 \times 10^{-2}$
  - 10
  - $1 \times 10^{10}$
7. A solution of  $\text{Ni}(\text{NO}_3)_2$  is electrolysed between platinum electrodes using 0.1 Faraday electricity. How many moles of Ni will be deposited at the cathode?
- 0.10
  - 0.15
  - 0.20
  - 0.05
8. An electrochemical cell can behave like an electrolytic cell when \_\_\_\_\_.
- $E_{\text{cell}} = 0$
  - $E_{\text{cell}} > E_{\text{ext}}$
  - $E_{\text{ext}} > E_{\text{cell}}$
  - $E_{\text{cell}} = E_{\text{ext}}$
9. In a hydrogen-oxygen fuel cell, combustion of hydrogen occurs to
- generate heat
  - create a potential difference between the two electrodes
  - produce high purity water
  - remove adsorbed oxygen from the electrode surface.
10. Which of the following statements is not correct about an inert electrode in a cell?
- It does not participate in the cell reaction.
  - It provides surface either for oxidation or for reduction reaction.
  - It provides surface for conduction of electrons.
  - It provides surface for redox reaction.

**In the following questions a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices:**

- Both assertion and reason are true and the reason is correct explanation for assertion.
- Both assertion and reason are true and the reason is not correct explanation for assertion.
- Assertion is true but the reason is false.
- Both assertion and reason are false.
- Assertion is false but reason is true.

11. **Assertion:** Cu is less reactive than hydrogen.

**Reason:**  $E^{\circ}_{\text{Cu}^{2+}/\text{Cu}}$  is negative.

12. **Assertion:** Decrease in the vapour pressure of water by adding 1 mol of sucrose to one kg of water is higher to that produced by adding 1 mol of urea to the same quantity of water at the same temperature .

**Reason:** Molecular mass of sugar is less than that of urea

### SECTION : B

13. State Henry's law. What is the effect of temperature on the solubility of a gas in a liquid [2]
14. Define azeotropes. What type of azeotrope is formed by positive deviation from Raoult's law? [2]

15. Calculate the freezing point of solution when 1.9 g of  $\text{MgCl}_2$  (Molar mass =  $95 \text{ g mol}^{-1}$ ) was dissolved in 50 g of water.  
( $K_f$  for water =  $1.86 \text{ K kg mol}^{-1}$ ) [2]
16. The molar conductivity of  $\text{NaCl}$ ,  $\text{HCl}$  and  $\text{CH}_3\text{COONa}$  at infinite dilution are 126.45, 426.16 and  $91 \text{ S cm}^2 \text{ mol}^{-1}$ , respectively. What will be the molar conductivity of  $\text{CH}_3\text{COOH}$  at infinite dilution? [2]
17. Explain the electrochemical theory of rusting of iron and write the reactions involved in the rusting of iron. [2]
18. Write the anode and the cathode reactions occurring in a lead storage battery while operating. [2]

**OR**

Write the anode and the cathode reactions occurring in a fuel cell.

### SECTION : C

19. A voltaic cell is set up at  $25^\circ\text{C}$  with the following half cells :  
 $\text{Al}/\text{Al}^{3+}$  (0.001 M) and  $\text{Ni}/\text{Ni}^{2+}$  (0.50 M)  
 Write an equation for the reaction that occurs when the cell generates an electric current and determine the cell potential.  
 $E^\circ_{\text{Ni}^{2+}/\text{Ni}} = -0.25\text{V}$  and  $E^\circ_{\text{Al}^{3+}/\text{Al}} = -1.66\text{V}$   
 $(\log 8 \times 10^{-6} = -0.54)$  [3]
20. Define conductivity and molar conductivity for the solution of an electrolyte. Discuss their variation with concentration. [3]
21. Two elements A and B form compounds having formulas  $\text{AB}_2$  and  $\text{AB}_4$ . When dissolved in 20 g of benzene ( $\text{C}_6\text{H}_6$ ), 1 g of  $\text{AB}_2$  lowers the freezing point by 2.3 K, whereas 1.0 g of  $\text{AB}_4$  lowers it by 1.3 K. The molar depression constant for benzene is  $5.1 \text{ K kg mol}^{-1}$ . Calculate the atomic masses of A and B. [3]

**OR**

An aqueous solution of 2% non-volatile solute exerts a pressure of 1.004 bar at the normal boiling point of the solvent. What is the molar mass of the solute? [3]

22. Derive Raoult's law for non-volatile solutes. [3]

### SECTION : D

23. Read the passage given below and answer the following questions:

Boiling point or freezing point of liquid solution would be affected by the dissolved solids in the liquid phase. A soluble solid in solution has the effect of raising its boiling point and depressing its freezing point. The addition of non-volatile substances to a solvent decreases the vapour pressure and the added solute particles affect the formation of pure solvent crystals. According to many researches the decrease in freezing point directly correlated to the concentration of solutes dissolved in the solvent. This phenomenon is expressed as freezing point depression and it is useful for several applications such as freeze concentration of liquid food and to find the molar mass of an unknown solute in the solution. Freeze concentration is a high quality liquid food concentration method where water is removed by forming ice crystals. This is done by cooling the liquid food below the freezing point of the solution. The freezing point depression is referred as a colligative property and it is proportional to the molar concentration of the solution ( $m$ ), along with vapor pressure lowering, boiling point

elevation, and osmotic pressure. These are physical characteristics of solutions that depend only on the identity of the solvent and the concentration of the solute. The characters are not depending on the solute's identity.

- A) Why is osmotic pressure preferable to other colligative properties?  
B) What happens when we place the blood cell in water (hypotonic solution)?  
C) An aqueous solution of sodium chloride freezes below 273 K. Explain the lowering in freezing points of water with the help of a suitable diagram [1+1+2=4]

**SECTION: E**

24. (a) How can you remove the hard calcium carbonate layer of the egg without damaging its semipermeable membrane? Can this egg be inserted into a bottle with a narrow neck without distorting its shape?  
(b) How many mL of 0.1M HCl are required to react completely with 1g mixture of  $\text{Na}_2\text{CO}_3$  and  $\text{NaHCO}_3$  containing equimolar amounts of both? [2+3=5]
25. (a) Predict the products of electrolysis in each of the following.  
(i) An aqueous solution of  $\text{AgNO}_3$  with silver electrodes  
(ii) An aqueous solution of  $\text{AgNO}_3$  with platinum electrodes  
(b) Three electrolytic cells, A, B, and C, containing solutions of  $\text{ZnSO}_4$ ,  $\text{AgNO}_3$  and  $\text{CuSO}_4$ , respectively, are connected in series. A steady current of 1.5 amperes was passed through them until 1.45 g of silver was deposited at the cathode of cell B. How long did the current flow? What mass of copper and zinc were deposited?  
[Atomic Mass  $\text{Ag}=108, \text{Zn}=65.4 \text{ Cu}=63.5$ ] [2+3=5]

**OR**

25. (a) Derive the relation among the cell constant and the conductivity of the solution.  
(b) Determine the values of equilibrium constant ( $K_c$ ) and  $\Delta G^\circ$  for the following reaction :  
 $\text{Ni(s)} + 2\text{Ag}^+(\text{aq}) \rightarrow \text{Ni}^{2+}(\text{aq}) + 2\text{Ag(s)}$ ,  
 $E^\circ = 1.05 \text{ V}$   
( $1F = 96500 \text{ C mol}^{-1}$ ,  $\text{antilog } 35.593 = 3.92 \times 10^{35}$ ,  $\text{antilog } 38.23 = 1.698 \times 10^{38}$ ) [2+3=5]



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Biology  
Maximum Marks- 50

**General Instructions:**

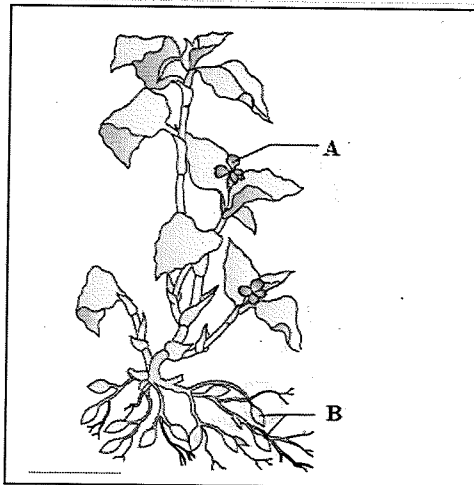
- (i) All questions are compulsory.
- (ii) The question paper has five sections and 24 questions.
- (iii) Section-A has 12 questions of 1 mark each; Section-B has 5 questions of 2 marks each; Section- C has 3 questions of 3 marks each; Section- D has 1 case-based question of 4 marks; and Section-E has 3 questions of 5 marks each.
- (iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- (v) Wherever necessary, neat and properly labeled diagrams should be drawn.

**SECTION-A**

Q. No. 1 to 12 are multiple choice questions. Only one of the choices is correct. Select and write the correct choice as well as the answer to these questions.

Q.No	QUESTIONS	MARKS
------	-----------	-------

1. In the figure given below the plant bears two different types of flowers marked 'A' and 'B'. Find out correct statement about the types of flowers and state the type of pollination that will occur in them.



- (a) Flower-A is Chasmogamous and pollination either self pollination or cross pollination
- (b) Flower-B is Cleistogamous and self pollination only
- (c) Flower-A and B both are pollinated through autogamy.
- (d) All are correct

2.	<p>From the statements given below choose the option that is true for a typical female gametophyte of a flowering plant:</p> <p>(i) It is 8-nucleate and 7-celled at maturity  (ii) It is free-nuclear during the development  (iii) It is situated inside the integument but outside the nucellus  (iv) It has an egg apparatus situated at the chalazal end</p> <p>(a) (i) and (iv)  (b) (ii) and (iii)  (c) (i) and (ii)  (d) (ii) and (iv)</p>	1
3.	<p>Select correct statement regarding Outbreeding devices which prevent from Inbreeding depression and encourage cross pollination.</p> <p>I. Self-incompatibility- Prevent autogamy and geitonogamy both  II. Dioecy – Prevent self pollination as well as autogamy and geitonogamy both.  III. Dichogamy(pollen release and stigma receptivity are not synchronized)-Prevent Autogamy and geitonogamy both  IV. Monoecious(both male and female flowers are present on the same plant)- Prevent Autogamy and geitonogamy both</p> <p>(a) I,II &amp; III  (b) II, III &amp; IV  (c) III &amp; IV  (d) I &amp; II</p>	1
4.	<p>In an embryo sac, the cells that degenerate after fertilisation are :</p> <p>(a) Synergids and primary endosperm cell  (b) Synergids and antipodals  (c) Antipodals and primary endosperm cell  (d) Egg and antipodals.</p>	1

5. Given below is the schematic representation of Oogenesis in human females:

Choose the option that shows the correct labeling of 'I', 'II', 'III', and 'IV' in the given diagram.

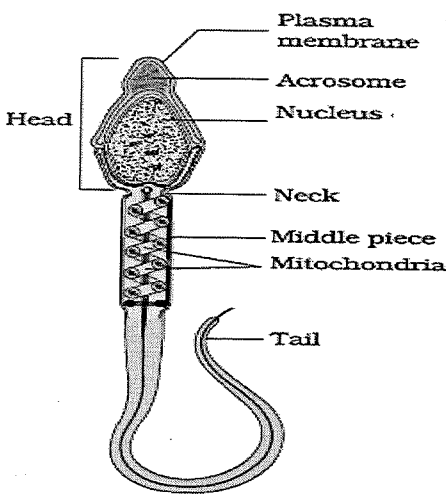
	I	II	III	IV
(a)	Germ cell	Primary oocyte	Primary follicle	Ovum
(b)	Oogonia	Primary oocyte	Secondary oocyte	Ovum
(c)	Primary oocyte	Primary follicle	Secondary oocyte	Ootid
(d)	Oogonium	Secondary oocyte	Ootid	Ovum

6.	<p>During the menstrual cycle or female reproductive cycle, changes in the ovary and the uterus are regulated by fluctuations in pituitary and ovarian hormone levels. Which of the following hormones exhibit <b>two peaks</b> within the typical 28/29-day cycle <b>in the absence of fertilization and pregnancy</b>?</p> <p>(a) LH &amp; FSH  (b) FSH and estrogen  (c) Estrogen and Progesterone  (d) Estrogen only.</p>	1
7.	<p>Placentation is one of the important stage of Human embryonic development. Select correct statements regarding Placenta:</p> <p>I. The chorionic villi and uterine tissue jointly form a structural and functional unit called placenta.  II. Placenta also acts as an endocrine tissue secretes both gonadotropin FSH and LH.  III. Placenta is connected to the embryo through chorionic villi.  IV. The placenta facilitate exchange of gases and removal of excretory/ waste materials from embryo.</p> <p>(a) I,II &amp; IV  (b) II and III  (c) I and IV  (d) III and IV</p>	1
8.	<p>Numbers of autosome present in an Oogonium and primary follicle during oogenesis:</p> <p>(a) 44 and 22 respectively  (b) 46 and 22 respectively  (c) 22 and 46 respectively  (d) 44 in both cases</p>	1
9.	<p>IUDs are ideal contraceptives for the females who want to delay pregnancy and/or space children. Which of the following IUD suppress sperm motility and fertilizing capacity of sperms?</p> <p>(a) Multiload 375  (b) LNG-20  (c) Lippes loop  (d) Progestasert</p>	1
	<p>Question No. 10 to 12 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:</p> <p>(a) Both A and R are true and R is the correct explanation of A.  (b) Both A and R are true and R is not the correct explanation of A.  (c) A is true but R is false.  (d) A is False but R is true.</p>	
10.	<p><b>Assertion (A):</b> A typical microsporangium generally surrounded by four wall layers - the epidermis, endothecium, middle layers and the tapetum.  <b>Reason(R):</b> All four layers perform the function of protection and help in dehiscence of anther to release the pollen.</p>	1
11.	<p><b>Assertion (A):</b> The male sex accessory ducts include rete testis, vasa efferentia, epididymis ,vas deferens and seminal vesicle  <b>Reason(R):</b> The epididymis leads to vas deferens that ascends to the abdomen and loops over the urinary bladder.</p>	1
12.	<p><b>Assertion (A):</b> Surgical methods, also called sterilisation, are generally advised for the male/female partner as a terminal method to prevent any more pregnancies.  <b>Reason(R):</b> Surgical intervention blocks gamete transport and thereby prevent fertilization as well as conception permanently.</p>	1

**SECTION-B**

13.	(a) What is pollen viability? (b) Define seed dormancy & write the name of oldest viable seed as per records. <p style="text-align: center;"><b>OR</b></p> (a) Justify apomixes that mimics sexual reproduction. (b) Write about any two most important advantages of seeds to angiosperms.	2
14.	Emasculation is the process of removal of anthers from a flower and is practised in artificial hybridisation techniques. (a) Mention ONE case where emasculation is compulsory and ONE where it is not required during such hybridisation processes. (b) Write one importance of emasculation and one importance of bagging.	2
15.	(a) Mention the major events that take place during implantation. (b) At the blastocyst stage, which cells are stem cells?	2
16.	(a) Justify parturition is one neuroendocrine mechanism. (b) Where do the signals for parturition originate in humans?	2
17.	Given below are two statements. State whether each of them is true or false and justify, using examples. (a) All contraceptives have the added advantage of protection against sexually transmitted diseases. (b) Natural birth control methods have negligible side effects.	2

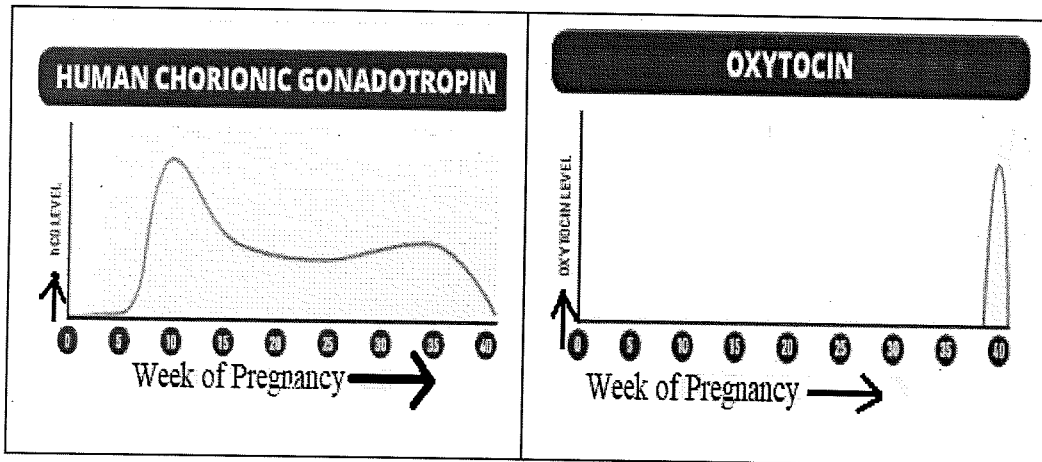
**SECTION-C**

18.	Pollen grains are shed at either a two-celled stage or a three-celled stage and may take some time to reach the stigma for fertilisation. The pollen grains germinate on the stigma of the flowers. (a) Where do the pollen grains get the nutrition to remain viable and germinate on the stigma? (b) Mention the cell divisions that a microspore mother cell goes through to reach a three-celled pollen grain stage. (c) State one characteristic of a pollen grain that pollinated through water and air respectively.	3
19.	In the diagram of a human sperm given below:  <p style="margin-left: 20px;">                     (a) What is the ploidy of the nucleus?                      (b) What is the role of the acrosome?                      (c) Only one sperm is able to fertilise the egg. How is this ensured?                 </p>	3

20.	<p>(a) State one difference between Intra-Uterine Transfer (IUT) and Zygote Intra Fallopian Transfer(ZIFT).</p> <p>(b) All Assisted Reproductive Technologies (ARTs) require the extraction of the female gamete from the ovary. Is this statement TRUE or FALSE? Give a reason</p> <p>(c) Write any one technique where ART suggest for in-vivo fertilization.</p>	3
<p><b>SECTION -D</b></p> <p><b>Single case based question with internal choice in one subpart.</b></p>		
21.	<p>The Medical Termination of Pregnancy (Amendment) Act, 2017 dictates that a pregnancy may be terminated on certain considered <i>grounds</i> within the first 12 weeks of pregnancy on the opinion of one registered medical practitioner. If the pregnancy has lasted more than 12 weeks, but fewer than 24 weeks, two registered medical practitioners must be of the opinion, formed in good faith, that the required <i>ground</i> exist.</p> <p>[Note: Grounds refer to circumstances or conditions.]</p> <p>(a) Describe two grounds under which medical termination of pregnancy is permitted.</p> <p>(b) When did the Government of India legalize MTP (Medical Termination of Pregnancy)?</p> <p>(c) Define <i>amniocentesis</i> and mention one advantage and one disadvantage.</p> <p style="text-align: center;"><b>OR</b></p> <p>Name any one method used for female foeticide and explain how this affects human reproductive health and society.</p>	4
<p><b>SECTION -E</b></p>		
22.	<p><b>Give a reason for each of the following:</b></p> <p>(a) The exine of pollen grains is very hard.</p> <p>(b) The endosperm of flowering plants is triploid.</p> <p>(c) A pollen grain landing on a stigma does not ensure fertilisation.</p> <p>(d) The filiform apparatus at the micropylar end forms an important part of the embryo sac.</p> <p>(e) Seeds of hybrid varieties need to be produced afresh every year.</p> <p style="text-align: center;"><b>OR</b></p> <p>The embryo sac represents the female gametophyte in a flowering plant.</p> <p>(a) What are the constituents of the egg apparatus in the embryo sac?</p> <p>(b) What is the ploidy of the cells of the egg apparatus?</p> <p>(c) What is the fate of the nucellus and integuments during post-fertilization events?</p> <p>(d) What is the importance of the filiform apparatus?</p>	5

23. (a) The image below shows the levels of various hormones measured in a human female throughout the course of her pregnancy. On the basis of the image answer following questions (i) & (ii)

5



- (i) What is the source of **hCG** and what is its role during pregnancy?  
 (ii) Why is **oxytocin** level high at the end of pregnancy? Mention its role and the source of its synthesis.
- (b) Explain the levels of **estrogen** and **progesterone** during a normal menstrual cycle (in the absence of pregnancy).

OR

- (a) Highlight one aspect by which meiosis during oogenesis differs from regular meiosis.  
 (b) Name two hormones that are common to spermatogenesis and oogenesis.  
 (c) How is oogenesis different from spermatogenesis?

24. (a) What are STIs, and why are they also called venereal diseases?  
 (b) Name any two venereal diseases along with their causative agents.  
 (c) Mention some incurable STIs.  
 (d) What are RTI and PID?

5

OR

- (a) How do the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) affect population stabilization?  
 (b) Under the natural method of contraception, how does lactational amenorrhea result in almost no chances of conception?  
 (c) Name a non-steroidal contraceptive pill and explain how it differs from other hormonal pills.



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
**QUALIFYING EXAMINATION (2025-26)**

**Class - XII**  
**Time - 2 Hours**

**Subject - Computer Science**  
**Maximum Marks- 50**

**General Instructions:**

- (i) This question paper contains 23 questions.  
(ii) All questions are compulsory.

1. If  $((a > b) \text{ and } (b > c) \text{ and } (c > d))$ , it means 1  
a) b is the smallest number.  
b) d is the greatest number.  
c) a is the smallest number.  
d) a is the greatest number.
2. Identify the output:- 1  
`x=2`  
`while x<9:`  
`print(x,end=" ")`  
`x=x+1`  
`pass`
3. Identify the output:- 1  
`b=1`  
`for a in range(1,10,2):`  
`b+=a+2`  
`print(b)`
4. `St= "Hold"` 1  
`If St[0]= "F"`  
Then what will be the result?  
a) It will replace the character at first index.  
b) The word 'Hold' will become 'Fold'  
c) Both a) and b)  
d) Error
5. What will be the output of the following code snippet: 1  
`Tp=('a','b','c','d')`  
`>>>Tp[1:-1]`

**Write output for Question Numbers 6 and 7 if:**

`l=[10,20]`  
`m=[8+2,18+2]`

6. `>>>l == m` 1

7. >>> l is m 1
- Write output for Questions Numbers 8 and 9 if:  
T=(10,8,20)**
8. >>>T.sort() 1
9. >>>sorted(T) 1
10. **Assertion (A):** When a python code tries to divide a number by a string, Syntax Error occurs. 1  
**Reasoning(R):** A run time errors occurs due to the exception because of incorrect input.
- a) Both A and R are True but R is not the correct explanation of A.  
b) Both A and R are True and R is the correct explanation of A.  
c) A is True but R is false.  
d) A is False but R is True.
11. Answer (a) and (b) on the basis of code given below: 2  

```
m=int(input("enter a number:"))
n=int(input("enter a number:"))
p=int(input("enter a number:"))
if ((m==n) and (n!=p)):
    print(m*n)
    print(n%p)
if((m!=n) and (n==p)):
    print(m/n)
    print((m+n)/(m-n))
```

a) When m=12, n=12 and p=10  
b) When m=15, n=12, and p=12

12. Write a Python code to enter an integer containing three digits or more. Arrange the digits of the entered number in ascending order and print back. 2  
Ex Input: 2573  
Output: 2357

13. Find the output:- 2  

```
word="Python World"
p=len(word)
if(word[1].isupper()):
    print(word[1:p-2])
elif(word[-1].islower()):
    print(word[:-2])
else:
    print(word[0:])
```

14. Write output for the following: 2  
`St= "a,b,c"`  
`print(St.split(','))`  
`print(St.partition(','))`
15. Find the output and justify your answer:- 2  
`a=10`  
`def fun():`  
 `try:`  
 `a=a+2`  
 `print("Able to add")`  
 `print(a)`  
 `except:`  
 `print("Unable to add")`  
`fun()`  
`print(a)`
16. Find the output:- 3  
`for a in range(1,6):`  
 `for b in range(1,a+1):`  
 `print("@",end=" ")`  
 `print()`
17. Define a function `ppalin(a,b)` which display all the prime palindrome numbers from a to b. 3  
 [Hint: A number which is prime as well as palindrome is said to be 'Prime Palindrome number'  
 Ex: 11,101,131 etc.
18. Define a function `arrange(st)` which accepts a string and returns the arranged string in ascending order letters. 3  
 Ex: if st is "PYTHON" then returned string should be "HNOPTY".
19. Find the output: 3  
`name="PythoN3.1"`  
`r=""`  
`for x in range(len(name)):`  
 `if name[x].isupper():`  
 `r=r+name[x].lower()`  
 `elif name[x].islower():`  
 `r=r+name[x].upper()`  
 `elif name[x].isdigit():`  
 `r=r+name[x-1]`  
 `else:`  
 `r=r+"#"`  
`print(r)`

20. Sohan has created a nested list containing four elements in each sub-list, as shown below: 4  
NList=[[1,2,3,4],[5,6,7,8],[9,10,11,12],[13,14,15,16]]  
What will be the output, if the following list slices are used?  
a) NList[0]  
b) NList[-2]  
c) NList[2][1:]  
d) NList[1][2:]
21. Write a program to read a text file "student.txt" which consists of 'n' number of lines. Create another file "copy.txt" which copies the longest word(s) from each line. 4
22. Define the following functions: 5  
Fun1(n): It should return the sum 'S' of the given series:  
 $S = 1/2 + 1/4 + 1/8 + 1/16 + \dots$  Up to 'n' terms.  
Fun2(n): It should return the sum 'S' of the given series:  
 $1 + (1*2) + (1*2*3) + (1*2*3*4) + \dots$  Up to 'n' terms.
23. Write a program to read a file "student.txt" by using readline() only and perform the following task: 5  
a) Count the number of lines which starts with vowel characters.  
b) Print the words of each line which ends with vowel characters.
-



# DELHI PUBLIC SCHOOL

## SAIL Township, Ranchi

### QUALIFYING EXAMINATION 2025

Class: XII

Subject: Informatics Practices

Max Marks: 50

Time: 2 Hrs.

#### General Instructions:

- This question paper contains three sections A, B, C
- All questions are compulsory.
- Section A has 16 questions carrying 01 mark each, Total: **16 marks**
- Section B has 05 Very Short Answer type questions carrying 02 marks each, Total: **10 marks**
- Section C has 08 Short Answer type questions carrying 03 marks each, Total: **24 marks**
- All programming questions are to be answered using Python Language only.

### Section-A

[Attempt all questions, Total 16X1=16 Marks]

1. Find the right output: [1]

```
import pandas as pd
import numpy as np
data = np.array([94,76,88])
s = pd.Series(data, index=[1,2,3])
s1=s.rename(index={1:'a', 2:'b', 3:'c'}, inplace=False)
print(s1)
print(s)
```

[a]	[b]	[c]	[d]
1 94	1 94	none	a 94
2 76	2 76	a 94	b 76
3 88	3 88	b 76	c 88
dtype: int64	dtype: int64	c 88	dtype: int64
none	a 94	dtype: int64	1 94
	b 76		2 76
	c 88		3 88
	dtype: int64		dtype: int64

The output of the following code is: [1]

```
x={'a': "Asia", 'b': "Britain", 'c': "Canada", 'd': "Denmark"}
import pandas as pd
s = pd.Series(x)
s.index=[1,2,3,4]
print (s)
```

[a]	[b]	[c]	[d]
a Asia	0 Asia	'a' Asia	1 Asia
b Britain	1 Britain	'b' Britain	2 Britain
c Canada	2 Canada	'c' Canada	3 Canada
d Denmark	3 Denmark	'd' Denmark	4 Denmark

3. See this dictionary functions and pick the output: [1]

```
import numpy as np
l1=[[1,2,3],[4,5,6]]
l2=[[7,8,9],[10,11,12]]
a1=np.array(l1)
a2=np.array(l2)
print(np.concatenate([a1, a2], axis=1))
```

[a]	[b]	[c]	[d]
[[ 7  8  9  1  2  3] [10 11 12  4  5  6]]	[[ 1  2  3  7  8  9] [ 4  5  6 10 11 12]]	[[ 7  8  9] [10 11 12] [ 1  2  3] [ 4  5  6]]	[[ 1  2  3] [ 4  5  6] [ 7  8  9] [10 11 12]]

4. Find the correct output of the following code: [1]

```
import pandas as pd
s1 = pd.Series([1,2,3,4])
s2 = pd.Series([11,12,13,14])
print(s2//s1)
```

[a]	[b]	[c]	[d]
0 11	0 11.000000	0 0.090909	0 0
1 6	1 6.000000	1 0.166667	1 0
2 4	2 4.333333	2 0.230769	2 0
3 3	3 3.500000	3 0.285714	3 0
dtype: int64	dtype: float64	dtype: float64	dtype: int64

5. The output of the following code is: [1]

```
import pandas as pd
data = {'a': 0., 'b': 1., 'c': 2.}
s=pd.Series(data, index=['b','c','a','x'])
print(s)
```

[a]	[b]	[c]	[d]
b 1.0	a 1.0	a 0.0	b 1.0
c 2.0	b 2.0	b 1.0	c 2.0
a 0.0	c 0.0	c 2.0	a 0.0
x NaN		x NaN	

6. Using drop() function over a value of a Series, the value: [1]

- [a] Is Returned to another object      [b] Remains in the Series  
[c] Both are wrong      [d] Both are correct

7. Find the correct answer of the following code: [1]

```
import numpy as np
L=[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]
ar = np.array(L)
nr = ar.reshape(4, 3)
print(nr)
```

<b>[a]</b> [[ 1 2 3] [ 4 5 6] [ 7 8 9] [10 11 12]]	<b>[b]</b> [[ 1 2 3 4] [ 5 6 7 8] [ 9 10 11 12]]	<b>[c]</b> [[12 11 10 9] [ 8 7 6 5] [ 4 3 2 1]]	<b>[d]</b> [[12 11 10] [ 9 8 7] [ 6 5 4] [ 3 2 1]]
--	---	--	--

8. Find the correct output: [1]  
import pandas as pd  
s=pd.Series(data=[10,20,30,40], index=['a', 'b', 'c', 'd'])  
print(s[2])  
print(s['b'])  
print(s.loc['b'])  
print(s.iloc[2])

<b>[a]</b> 20 20 20 30	<b>[b]</b> 20 30 30 20	<b>[c]</b> 30 20 20 30	<b>[d]</b> 20 30 20 30
------------------------------------	------------------------------------	------------------------------------	------------------------------------

9. \_\_\_\_\_ is the output of the following code: [1]  
import pandas as pd  
Marks=pd.Series({'Rahul':84,'Aarush':78,'Shobhit':85, 'Krish':90})  
print(Marks>85)

10. Write the output of the following code: [1]  
import pandas as pd  
a=pd.Series([78,45,89,98])  
b=pd.Series([67,87,90])  
student={"English":a, "Hindi":b}  
df=pd.DataFrame(student)  
print(df)

<b>[a]</b>	English Hindi	<b>[b]</b>	English Hindi	<b>[c]</b>	Hindi English	<b>[d]</b>	Hindi English
0	78 67.0	1	78 67.0	0	67.0 78	1	67.0 78
1	45 87.0	2	45 87.0	1	87.0 45	2	87.0 45
2	89 90.0	3	89 90.0	2	90.0 89	3	90.0 89
3	98 NaN	4	98 NaN	3	NaN 98	4	NaN 98

11. Find the output of the following code is: [1]  
temp=[22, 23, 24, 21, 25]  
n=len(temp)  
for i in range(0, n, 2):  
print(temp[i])

<b>[a]</b> 22 23 24 25	<b>[b]</b> 22 24 25	<b>[c]</b> 22 24	<b>[d]</b> 22 23 24
------------------------------------	------------------------------	------------------------	------------------------------

12. Write the code to replace 'Cycle' by 'Bicycle' in the following dictionary: [1]  
x = {1: "Car", 2: "Cycle", 3: "Bus", 4: "Train"}
13. Find the output: [1]  
import pandas as pd  
s = pd.Series([10,20,30,40,50,60])  
a=s.where(s <= 25)  
print(a)

[a]	[b]	[c]	[d]
0 10.0	0 True	0 10	None of these
1 20.0	1 True	1 20	
2 NaN	2 False		
3 NaN	3 False		
4 NaN	4 False		
5 NaN	5 False		

14. Pick the correct output of the following code: [1]

```
import pandas as pd
s = pd.Series([1,2,3,4,5], index=['a','b','c','d','e'])
print(s['b':'e'])
```

[a]	[b]	[c]	[d]
b 2	b 2	c 3	An Error will occur
c 3	c 3	d 4	
d 4	d 4	e 5	
e 5	dtype: int64	dtype: int64	
dtype: int64			

Q15 and 16 are ASSERTION AND REASONING based questions. Mark the correct choice as [2]

- i. Both A and R are true and R is the correct explanation for A
- ii. Both A and R are true and R is not the correct explanation for A
- iii. A is True but R is False
- iv. A is false but R is True

15. **Assertion (A):** Update command is applied to edit data in the table of MySQL database.  
**Reasoning (R):** Set triggers to the row or record of the table to apply Update command.
16. **Assertion (A):** DataFrame has both a row and column index.  
**Reasoning (R):** A DataFrame is a two-dimensional labelled data structure like a table of MySQL.

### Section-B

[Attempt All questions, 2 marks each, Total 5X2=10 Marks]

17. Write code to create a DataFrame from the following dictionary and print the output:  
d={'X': [76, 92, 83], 'XI': [88,77,99], 'XII': [60,70,80]}. [2]
18. Write code to print the values in descending order of a series created by List [40,10,30,50,20] [2]
19. Write a code to create an NumPy Array from the following list, then print the value of the 2<sup>nd</sup> row & 3<sup>rd</sup> col of the array. The list is: Lst=[[10,20,30,40,50], [11,22,33,44,55]] [2]
20. Explain a Series generated by scalar value, with a suitable example. [2]
21. Write code to convert the given list into a dictionary and print the output. [2]  
L=[ [10, 'USA'], [20, 'China'], [30, 'UK'], [40, 'Germany'], [50, 'India'] ]

### Section-C

[Attempt All questions, 3 marks each, Total 8X3=24 Marks]

22. Write a code to create a Series s from a given dictionary and print the output of the series and also using a function, print last 5 elements of it. dict={'a': 0., 'b': 1., 'c': 2., 'd': 3.} [3]
23. Write a program to create a Series of 10 elements (2,4,6.....18,20), from a NumPy array using a function arange() and also generate corresponding index (1,2,3...) of the series using range() function and finally print the output of the series. [3]

24. Write the output of the following DataFrame, then write command to change the index order as [102,103,101]: [3]

```
import pandas as pd
L1=[11,'A', 12]
L2=[12, 'B', 15]
L3=[10, 'C', 14]
idx=[101,102,103]
col=['Class', 'Section', 'Roll No']
df=pd.DataFrame(data=[L1,L2, L3], index=idx, columns=col)
print(df)
```

25. Write a program to create a DataFrame as instructed below: [1+1+1]

- (i) First create two Series s1 & s2 having same index ['a', 'b', 'c', 'd'] with respective values [22,55,33,66] & [10,50,20,40]  
(ii) Create a DataFrame (df) with these series in a list i.e. List of Series, with output.

26. Find the output and show/print: [3]

```
import pandas as pd
s = pd.Series([11, 22, 33, 44, 55, 66, 77, 88, 99, 100], index=[49, 48, 47, 46, 45, 1, 2, 3, 4, 5])
print(s.iloc[:3])
print(s.loc[:3])
print(s[s<=66])
```

27. There are two lists L1=[10,20,30,40,50] & L2=[11,12,13,14,15], now perform the followings:

- (i) Write a Python command to create two series (s1 & s2) out of the above two sets of lists. [1]  
(ii) Write a Python command to concatenate the two series row wise and print. [1]  
(iii) Print/show the output of the following code: [1]

```
import pandas as pd
L1={'A':100, 'B': 400, 'C': 300}
L2={'A':111, 'D': 444, 'C': 555}
df = pd.DataFrame([L1, L2])
print(df)
```

28. Write the code/command, as asked below for a Series:

- (i) Create a Series (sr) of the list: Class = ["XII", "X", "XI", "IX", "VIII"] [1]  
(ii) Sort this Series (sr) in descending order and print the output. [1]  
(iii) Replace the index by labels ['a', 'b', 'c',.....] [1]

29. Consider this table EMP, now write SQL commands to perform the tasks as given. [6X0.5=3]

EmpCode	EmpName	Designation	Salary	Joining Date
1001	Rahul	Accountant	25000	2011-5-25
1002	Krishna	Clerk	20000	2010-6-19
1003	Akshat	Accountant	22000	2012-7-22
1005	Nishant	Supervisor	24000	2016-4-23
1006	Sonam	Accountant	22000	2010-5-24
1007	Pihu	Manager	38000	2012-6-18

- (i) Create the table Emp with suitable constraints as Primary Key, Not Null, Unique, Default, etc.  
(ii) Print the records of EMP in descending order on Salary.  
(iii) Display the records those salary is less than 25000 and joined after 2010 (use year() function).  
(iv) Show the records of those, whose 2<sup>nd</sup> last character of the Name is 'n'.  
(v) Increase the salary by 10000 those salary is more than 22000 but less than 35000.  
(vi) Display the records in descending order on salary.



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Accountancy  
Maximum Marks - 50

### General Instructions:

1. Attempt all questions.
2. Read the Questions Carefully and Answer to the Point.
3. Show working notes, where applicable.

- 
1. Any change in the relationship of existing partners which results in an end of the existing agreement and entering into a new agreement is called \_\_\_\_\_  
(a) Revaluation of partnership firm  
(b) Reconstitution of partnership firm  
(c) Dissolution of partnership firm  
(d) Amalgamation of partnership firm [1]
  2. P, Q and R are partners in the ratio of 5 : 3 : 2. If Q's share of profit at the end of the year amounted to Rs. 1,50,000, what will be P's share of profit?  
(a) Rs. 5,00,000 (b) Rs. 1,50,000 (c) Rs. 3,00,000 (d) Rs. 2,50,000 [1]
  3. The difference between the fixed capital method and fluctuating capital method of maintaining partner's capitals is whether or not the transactions other than \_\_\_\_\_ are recorded in the capital accounts of the partners.  
(a) Additional Capital introduced  
(b) Withdrawal of Capital  
(c) Partner's Loan  
(d) Both (a) and (b) above [1]
  4. Which of the following items is not dealt through profit and loss appropriation account?  
(a) Interest on Partner's Loan  
(b) Partner's Salary  
(c) Interest on Partner's Capital  
(d) Partner's Commission [1]
  5. Revaluation of assets at the time of reconstitution is necessary because their present value may be different from their \_\_\_\_\_  
(a) Market value (b) Net value (c) Cost of asset (d) Book value [1]
  6. A, B and C were partners sharing profits in the ratio of 4 : 3 : 2. A and B each given 1/9 from their share to C on reconstitution of the firm. The new profit sharing ratio among A, B and C will be \_\_\_\_\_  
(a) 3 : 4 : 2 (b) 2 : 3 : 4 (c) 4 : 2 : 3 (d) 3 : 2 : 4 [1]
  7. The need for valuation of goodwill arises in which of the following circumstances, in context with a Partnership Firm.  
(a) Dissolution of a Partnership Firm involving sale of business as a Going Concern  
(b) Amalgamation of Partnership Firms  
(c) Both (a) and (b) above  
(d) None of these [1]

8. The term 'Number of years' Purchase' means \_\_\_\_\_
- The number of years during which the purchaser of goodwill expects that the profits due to goodwill are likely to arise in future.
  - Number of years for which goodwill is purchased.
  - Number of years for which goodwill purchased will not help the firm in earning similar profits.
  - None of the above.

[1]

9. **Assertion (A)** : Goodwill is an intangible asset and is recognized as an asset only when it is purchased.

**Reason (R)**: AS - 26, Intangible Assets, prescribes to recognize goodwill as an asset only when consideration has been paid for it.

In the context of the above statements, which of the following options is correct?

- Both (A) and (R) are correct but (R) is not the correct explanation of (A)
- Both (A) and (R) are correct and (R) is the correct explanation of (A)
- (A) is false and (R) is true.
- (A) is true and (R) is false.

[1]

10. A, B and C were partners in a firm sharing profits and losses in the ratio of 5 : 3 : 2. With effect from 01/04/2023, they agreed to share profits and losses equally. Due to change in the profit sharing ratio, B's gain or sacrifice will be \_\_\_\_\_

- Gain 1/30
- Sacrifice 1/30
- Gain 5/30
- Sacrifice 4/30

[1]

11. A and B are partners sharing profits and losses in the ratio of 3 : 2. C is admitted for  $\frac{1}{4}$  and for which Rs. 30,000 and Rs. 10,000 are credited as a premium for goodwill to A and B respectively. The new profit sharing ratio of A : B : C will be \_\_\_\_\_

- 3 : 2 : 1
- 12 : 8 : 5
- 9 : 6 : 5
- 33 : 27 : 20

[1]

12. Ram, Shyam and Manu were partners in a firm sharing profits and losses in the ratio of 9 : 6 : 5. Hema was admitted as a partner for  $\frac{1}{10}$ th share in the profits which she acquired equally from Ram and Shyam. The new profit sharing ratio after admission of Hema will be \_\_\_\_\_

- 5 : 5 : 2 : 8
- 5 : 5 : 8 : 2
- 8 : 2 : 5 : 5
- 8 : 5 : 5 : 2

[1]

13. Arun, Barun and Charan were partners in a firm sharing profits in the ratio of 2 : 2 : 1. They admitted Dharam for  $\frac{1}{5}$ th share in the profits of the firm. He has to contribute proportionate capital to acquire  $\frac{1}{5}$ th share in future profits. On the date of admission, the capitals after all adjustments relating to goodwill and revaluation of assets and liabilities, were : Arun Rs. 62,000, Barun Rs. 52,000 and Charan Rs. 36,000. The capital brought by Dharam will be \_\_\_\_\_

- Rs. 37,500
- Rs. 30,000
- Rs. 32,500
- Rs. 35,000

[1]

14. P and Q were partners in a firm sharing profits and losses in the ratio of 2 : 1. On 01-04-2022, they admitted R as a new partner for  $\frac{1}{10}$ th share of profits with a guaranteed minimum of Rs. 50,000. P and Q continued to share profits as before but agreed to share any deficiency on account of guarantee to R in the ratio of 3 : 2. The net profit of the firm for the year ended 31-03-2023 was Rs. 3,00,000.

Prepare Profit and Loss Appropriation Account for the year ending 31-03-2023.

[3]

15. P and R were partners in a firm with a combined capital of Rs. 4,00,000. The normal rate of return was 15%. The profits of last four years were :

Year	Rs.
2019 - '20	60,000
2020 - '21	90,000
2021 - '22	80,000
2022 - '23	60,000

The Closing Stock for the year 2022 - '23 was undervalued by Rs. 10,000.

Calculate Goodwill of the firm based on Capitalization of Average Profit.

[3]

16. A and B were partners in a firm sharing profits and losses in the ratio of 3 : 2 . They admitted C as a new partner for  $\frac{3}{7}$ th share in the profit and the new profit sharing ratio will be 2 : 2 : 3. C brought Rs. 2,00,000 as his capital and Rs. 1,50,000 as premium for goodwill. Half of their share of premium was withdrawn by A and B from the firm. Calculate Sacrificing Ratio and draw the necessary journal entries for the above transactions.

[3]

17. Sharma and Verma were partners in a firm sharing profits and losses in the ratio of 3 : 2. Their fixed capitals were Rs. 14,00,000 and Rs. 10,00,000 respectively. The partnership deed provided for the following:
- Interest on capital @ 10% p.a.
  - Interest on drawings @ 12% p.a.
- During the year ended 31/03/2023, Sharma withdrew Rs. 2,00,000 and Verma withdrew Rs. 1,00,000. After preparing the accounts for the year ended 31/03/2023, it was realized that interest on capital was not allowed and interest on drawings was not charged.
- Pass the necessary adjustment entry showing your working notes clearly. [4]
18. Amal, Vimal and Sunil entered into partnership on 1<sup>st</sup> April, 2019 with capitals of Rs. 3,00,000, Rs. 2,00,000 and Rs. 1,00,000 respectively. In addition to capital Sunil has advanced a loan of Rs. 1,00,000. Since they had no agreement to guide them, they faced the following issues during and at the end of the year.
- Amal wanted interest on capital to be provided @ 8% p.a. But Vimal and Sunil did not agree.
  - Sunil wanted that interest on loan to be paid to him @ 10% p.a. But Amal and Vimal wanted to pay @ 5% p.a.
  - Amal and Vimal demanded to share profits in the ratio of their capital contribution, Sunil is not in agreement with the proposal.
  - Vimal being working partner, demands a lump sum payment of Rs. 40,000 as remuneration for which other partners are not in agreement.
- You are required to suggest and help them resolve these issues point wise. [4]
19. (a) A and B were partners in a firm sharing profits equally. Their capitals were A – Rs. 1,20,000 and B – Rs. 80,000. The normal rate of return is 20%. Profits of the firm for the last three years were Rs. 34,000; Rs. 38,000 and Rs. 30,000. They admitted C as a new partner. On C's admission the goodwill of the firm was valued at 2 years' purchase of the super profits. Calculate the value of goodwill of the firm, if any, on C's admission.
- (b) A business earned average profits of Rs. 6,00,000 during the last few years. The normal rate of profits in the similar type of business is 10%. The total value of assets and liabilities of the business were Rs. 22,00,000 and Rs. 5,60,000 respectively.
- Calculate the value of goodwill of the firm by super profit method if the goodwill is valued at  $2\frac{1}{2}$  years' of purchase of super profits. [2+2]
20. X, Y and Z were partners in a firm sharing profits in the ratio of 1 : 1 : 2. On 31<sup>st</sup> March, 2018, their balance sheet showed a credit balance of Rs. 9,000 in the profit and loss account and a workmen compensation fund of Rs. 64,000. From 1<sup>st</sup> April, 2018 they decided to share profits in the ratio of 2 : 2 : 1. For this purpose it was agreed that :
- Goodwill of the firm was valued at Rs. 4,00,000.
  - A claim on account of workmen compensation of Rs. 30,000 was admitted.
- Pass necessary Journal entries on reconstitution of the firm. [4]
21. Sudha, Naresh and Geeta were partners in a firm sharing profits in the ratio of 5 : 3 : 2. Their Fixed Capitals were Rs. 6,00,000; Rs. 4,00,000 and Rs. 2,00,000 respectively. Besides her capital Geeta had given a loan of Rs. 75,000 to the firm. Their partnership deed provided for the following:
- Interest on capital @ 9% p.a.
  - Interest on partners' drawings @ 12% p.a.
  - Salary to Sudha Rs. 30,000 per month and to Naresh Rs. 40,000 per quarter.
  - Interest on Geeta's Loan @ 9% p.a.
- During the year Sudha withdrew Rs. 50,000 at the end of each quarter; Naresh withdrew Rs. 50,000 in the beginning of each half year and Geeta withdrew Rs. 70,000 at the end of each half year. The profit of the firm for the year ended 31<sup>st</sup> March, 2019 before allowing interest on Geeta's Loan was Rs. 7,06,750.
- Prepare Profit and Loss Appropriation Account. [6]

22. A and B were partners in a firm sharing profits and losses in the ratio of 3 : 1. On 31<sup>st</sup> March, 2022, their Balance Sheet was as follows:

LIABILITIES		Amt. (RS.)	ASSETS		Amt. (Rs.)
Outstanding Expenses		3,000	Bank		40,000
Bills Payable		20,000	Stock		60,000
Sundry Creditors		1,40,000	Bills Receivable		70,000
General Reserve		80,000	Debtors	1,00,000	
			Less: Provision	<u>5,000</u>	95,000
Capitals:			Furniture		85,000
A	2,00,000		Machinery		1,10,000
B	<u>3,00,000</u>	<u>5,00,000</u>	Land and Building		<u>2,83,000</u>
		<u>7,43,000</u>			<u>7,43,000</u>

C was admitted as a new partner on 1<sup>st</sup> April, 2022, for 1/5 share in the profits on the following terms:

- (i) C will bring Rs. 2,00,000 as her capital and Rs. 1,60,000 as her share of goodwill premium.
- (ii) Stock will be appreciated by Rs. 1,500.
- (iii) Debtors of Rs. 5,000 will be written off as bad debts and a provision of 10% for bad and doubtful debts will be maintained.

Prepare Revaluation Account, Partners' Capital Accounts and Balance Sheet of the New Firm on 1<sup>st</sup> April, 2022.

[6]



# DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Business Studies  
Maximum Marks - 50

## General Instructions:

1. There are 16 questions in the question paper. All questions are compulsory.
2. Question nos. 1 to 6 carry 1 mark each.
3. Question nos. 7 to 9 carry 3 marks each.
4. Question nos. 10 and 11 carry 4 marks each.
5. Question nos. 12 to 14 carry 5 marks each.
6. Question nos. 15 and 16 carry 6 marks each.
7. There is no overall choice.
8. Attempt all parts of a question together.

1. KTX. is rolling out an initiative to help create wealth for the employees through the implementation of Employees stock option, through motivation and leadership, the management will help individuals to develop team Spirit cooperation and commitment to the success of the group. The following important of management is highlighted above

- (A) Management helps in achieving personal objectives
- (B) Management helps in the development of the society.
- (C) Management creates a dynamic organisation
- (D) Management increases efficiency

[1]

2. " The application of principle of management is dependent upon the prevailing situation at a particular point of time "

[1]

The above statements highlights the principles of management are:

- (A) Flexible.
- (B) Contingent
- (C) Behavioral.
- (D) Universal

**Direction in following questions, a statement of Assertion (A) is followed by statement of Reason (R) mark the correct choice as Question Number 3 and 4 only.**

- A. Both Assertion (A) and Reason (R) are true and Reason (R) is correct explanation of Assertion (A)
- B. Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A)
- C. Assertion (A) is correct but Reason (R) is false
- D. Assertion (A) is false but Reason (R) is true.

3. **Assertion (A):** Managerial principles helps the management to come out with the methods that help in reducing wastage

**Reason(R):** Principles of management cannot be modified.

[1]

4. **Assertion (A):** Segregating work in the workforce amongst workers will enhance the quality of the product.

**Reason (R):** Division of work leads to specialization.

[1]

5. Which of the following functions of marketing can improve performance of the product and also give it a competitive advantage in the market by attracting the target customers
- Market planning
  - Production designing and development
  - Promotion
  - Branding
- [1]
6. India has launched its most advanced jio imaging satellite which will allow better monitoring of the subcontinent including its borders and neighbouring countries by imaging the country 4 - 5 times a day the satellite is capable of near real time monitoring of flood and Cyclones .The factor constituting the business environment being discussed above is
- Social environment
  - Economic environment
  - Technological environment
  - Political environment
- [1]
7. Explain Liberalization, Privatisation and Globalization
- OR**
- Explain any three features of Business Environment
- [3]
8. Explain Differential wage rate system as prescribed by Taylor as a Technique of scientific management with example.
- [3]
9. Timeline watch manufacturing company is a renowned company marketing watches it performs various activities like market analysis product designing. All manufacturing, packaging, warehousing, branding, pricing, promotion and selling the company maintains good customer relation through various follow-up activities. This helps the company in procuring repeat sales order.
- Name and explain the concept related to the activities mentioned in the above paragraph.
  - Explain any two features of the concept identified in para - 1.
- [3]
10. Distinguish between Production concept, Product concept, marketing concept and societal marketing concept on the basis of (a) Selling point (b) Main focus (c) Means (d) Ends.
- [4]
11. A recent rate cut In the interest on loans announced by the banks encouraged Amit assigns student of progressive school to take a loan from the State Bank of India to experiment and develop cars powered by fuel produced from garbage. He developed such a car and exhibited in the science fair organised by the 'Directory of Education'. He was awarded first prize for this Invention.
- Identify and explain the dimensions of business environment discussed in the above case. Quote the lines too.
- [4]
12. Dependence between departments and individuals and harmonisation of individual goals with organisational goals make coordination necessary in the light of the statement discuss why coordination is important.
- [5]
13. Dheeraj is working as" Operations Manager" in Tata Steel Ltd., Name the Managerial level at which he is working. State his four important functions which he is performing. Also enumerate two more Designations at this level.
- [5]

14. Radhika was a student of business studies of Class XII. Her father was a farmer who created different varieties of rice and was well versed about the various aspects of the rice cultivation. He was also selected by the government for a PILOT PROJECT of rice cultivation. As a project work in business studies she decided to study the feasibility of marketing good quality rice at a reasonable price. Her father suggested her to use the internet to gather customers views and opinions. She found that there was a huge demand for packaged organic rice .She knew that there were no pre-determined specification in case of the rice because of which it would be difficult to achieve uniformity in output. To differentiate the product from the competitors she gave it the name of "Malabar Organic Rice" and classified it into 3 different varieties namely Popular, Classic and Supreme based on the quality. She felt that these names would help her in the product differentiation.

Explain the three functions of marketing with reference to the above paragraph and Quote the lines for the same. [5]

15. Explain the following [6]

- (A) Standardisation and Simplification
- (B) Scalar Chain
- (C) Subordination of Individual interest to Organizational interest
- (D) Principle of Order.

16. Explain Marketing Mix and its Elements

**OR**

Explain Product Mix and important functions related to Product and elements. [6]



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
**QUALIFYING EXAMINATION (2025-26)**

**Class - XII**  
**Time - 2 Hours**

**Subject - Economics**  
**Maximum Marks - 50**

**General Instructions:**

1. The Question Paper consists of two sections.
2. Internal options have been provided in some questions.
3. Q1 to Q6 in Section A and Q12 to Q15 consists of 1 mark each.
4. Q7 and Q8 in Section A and Q16 and Q17 consist of 3 marks each.
5. Q9 and Q10 in Section A and Q18 and Q19 consist of 4 marks each.
6. Q11 in Section A and Q20 consists of 6 marks each.
7. Marks distribution has been mentioned wherever required.
8. Write the answers in points wherever possible.
9. Write the formula and show the calculations clearly.
10. Handwriting should be neat and presentable.

**PART A: MACROECONOMICS**

1. Which of the following is a stock?  
(a) savings  
(b) production  
(c) consumption of fixed capital  
(d) capital [1]
2. In the given question, read the following statements and choose the correct alternative among those given below:  
**Statement I:** Economic territory and political frontier of a nation are one and the same thing.  
**Statement II:** American Embassy in India is a part of the economic territory of India.  
**Alternatives:**  
(a) Both the statements are true  
(b) Both the statements are false  
(c) Statement I is true and statement II is false  
(d) Statement II is true and statement I is false [1]
3. Identify which of the following statements is incorrect with reference to an economy.  
(a) Excess of Gross National Product over Gross Domestic Product is possible.  
(b) Excess of Gross Domestic Product over Gross National Product is possible.  
(c) Equality between Gross National Product and Gross Domestic Product is possible.  
(d) Sum of Gross National Product and Gross Domestic Product is always equal to zero. [1]

**OR**

From the following information, compute GNPmp. GDPfc= Rs. 3000, Net Factor Income to Abroad= Rs. 200, Indirect Taxes= Rs. 420, Subsidies= Rs. 240.

- (a) Rs. 3380
- (b) Rs. 2980
- (c) Rs. 3020
- (d) Rs. 2620

4. From the statements given in column I and column II, choose the correct pair:

Column I	Column II
A. Vegetables grown in the personal garden	(i) non marketing activity
B. A car used as a taxi	(ii) consumer good
C. An air conditioner used by household	(iii) capital good
D. Scholarship given to students by government	(iv) factor income

*Alternatives:*

- (a) A-(i)
- (b) B- (ii)
- (c) C- (iii)
- (d) D- (iv)

[1]

5. Which of the following is an intermediate expenditure?

- (a) expenditure on maintenance by a firm
- (b) purchase of furniture by a firm
- (c) purchase of tractor by a farmer
- (d) refrigerator bought by a household

[1]

6. Complete the table:

Producer	Value of Output (VO)	Intermediate Expenditure (IC)	Value Added (VA)
Farmer	2000	-	2000
Baker	...(i)...	2000	2000
Retail Seller	4400	...(iii)...	400
<b>Total</b>	...(ii)...	6000	...(iv)...

*Alternatives:*

- (a) 4,000; 10,400; 4,000; 4,000
- (b) 4,000; 10,400; 4,000; 4,400
- (c) 2,000; 6,000; 6,000; 4,400
- (d) 4,000; 10,400; 6,000; 4,000

[1]

7. How will you treat the following while estimating National Income of India? Give reasons for your answer.

- (a) Salaries received by Indian residents working in the Russian Embassy in India.
- (b) Profits earned by an Indian Bank from its branches abroad.
- (c) Goods and Services Tax received by the government

[3]

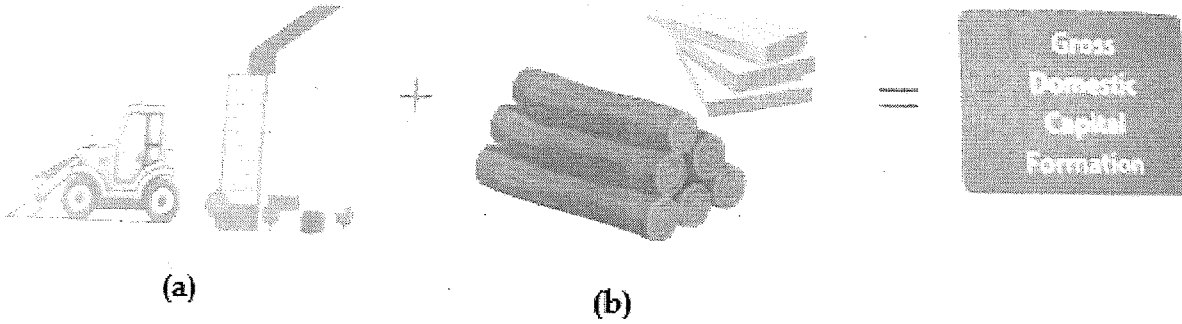
8. Calculate the operating surplus from the following data:

[3]

Particulars	Rs. in crores
Compensation of Employees	300
Indirect Taxes	200
Consumption of fixed capital	100
Subsidies	50
Gross Domestic Product at Factor Cost	650

OR

From the given picture, answer the following questions:



- (i) Identify the type of investments as shown by items (a) and (b) in the given picture.  
(ii) 'Purchase of shares of Reliance Industries is included in Gross Domestic Capital Formation.' Is the given statement true?  
(iii) Item (b) refers to a physical change in the stock of \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.  
(Fill in the blanks)

9. "Disposition Phase of circular flow of income involves flow of factor income, which comprises rent, wages, interest and profits from firms to households." Defend or refute the statement, giving valid reasons. Use diagram in support of your answer. [4]
10. From the following data show that Net Value Added at factor cost is equal to the sum of factor income: [4]

Particulars	Rs. in crores
Consumption of fixed capital	90
Import of raw material	120
Change in stock	240
Goods and Services Tax	60
Domestic Sales	2,160
Distributed profits	180
Retained earnings	120
Purchase of raw material	840
Exports	240
Rent and Royalty	90
Compensation of employees	720
Interest	540

OR

Estimate the missing values in the value of Gross Domestic Product at factor cost by Expenditure Method and Income Method is Rs. 920 crore.

Particulars	Rs. in crores
Consumption of fixed capital	170
Change in stock	140
Mixed income of self employed	180
Operating surplus	?
Gross domestic fixed capital formation	140
Government final consumption expenditure	?
Net Exports	(-)50
Net indirect taxes	60
Private final consumption expenditure	470
Compensation of employees	375
Employers' contribution to social security schemes	150

11. (a) "Management of a water polluting oil refinery says that it (oil refinery) ensures welfare through its contribution to Gross Domestic Product. Defend or refute the argument of management with respect to GDP as a welfare measure of the economy. [3]
- (b) Suppose only one 'Good X' is produced in the country. Output of Good X during 2018 and 2019 were 100 units and 110 units respectively. The market price of the product during the two years was Rs. 50 and Rs. 55 per unit respectively. Calculate the percentage change in Real Gross Domestic Product in the year 2019, using 2018 as the base year. [3]

### PART B: INDIAN ECONOMY

12. In the following question, read the following statements: Assertion(A) and Reason(R). Choose the correct alternative among those given below:

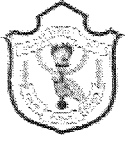
**Assertion(A):** India could not develop a sound industrial base during the British rule.

**Reason(R):** Britishers followed restrictive trade policies which strengthened Indian handicraft industries.

*Alternatives:*

- (a) Both Assertion(A) and Reason(R) are true and Reason(R) is the correct explanation of Assertion(A).
- (b) Both Assertion(A) and Reason(R) are true and Reason(R) is not the correct explanation of Assertion(A).
- (c) Assertion(A) is true but Reason(R) is false.
- (d) Assertion(A) is false but Reason(R) is true. [1]

13. During the second half of the 19th Century, the cotton textile mills mainly dominated by Indian entrepreneurs were located mainly in \_\_\_\_\_.
- (a) Bengal
  - (b) Maharashtra
  - (c) Calcutta
  - (d) Madhya Pradesh
- [1]
14. In the post independence era, the policy makers of India adopted an economic system that fundamentally implies the coexistence of \_\_\_\_\_ and \_\_\_\_\_.
- (a) small and large scale industries
  - (b) small and medium scale industries
  - (c) public and private sector
  - (d) private and foreign sector
- [1]
15. Which of the following is not a valid statement in the context of Industrial Policy Resolution (IPR), 1956?
- (a) Ownership and management of the core industries were given to the public sector.
  - (b) Tax benefits were given to industries being established in backward regions to promote regional equalities.
  - (c) A few Industries were allowed to be owned by the private sector.
  - (d) Goods produced by small scale industries were dereserved.
- [1]
16. Explain the two fold motive behind the systematic de-industrialisation affected by the British in pre independent India. [3]
17. "Import restrictions were imposed in India with the dual objective to save foreign exchange reserves and to be self-sufficient." Justify the given statement with valid arguments. [3]
18. "The demographic condition during the British rule exhibited all features of a backward Indian economy." Do you agree? Give reasons in support of your answer. [4]
19. Discuss briefly, how institutional reforms (land reforms) have played a significant role in transforming Indian agriculture. [4]
20. (a) "Modernisation as a planning objective shows a dichotomy with employment generation." Justify the statement. [3]
- (b) Explain the statement that the green revolution enabled the government to procure sufficient food grains to build its stocks that could be used during times of shortage. [3]
- OR**
- (c) Explain 'growth with equity' as a planning objective.
  - (d) While subsidies encourage farmers to use new technology, they are a huge burden on government finances. Discuss the usefulness of subsidies in the light of this fact.
-



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
**QUALIFYING EXAMINATION (2025-26)**

Class - XII  
Time - 2 Hours

Subject - History  
Maximum Marks- 50

**General Instructions:**

- The paper has been divided into five sections - A, B, C, D and E. There are 20 questions in the question paper. All questions are compulsory.
- Section A: Question no. 1 to 12 are MCQs of 1 marks each.
- Section B: Question no. 13 to 15 are short Answer type questions carrying 3 marks each. Answer to each question should not exceed 60-80 words.
- Section c: Question no. 16 and 17 are long Answer type questions carrying 8 marks each. Answer to each question should not exceed 300-350 words
- Section D: Question no. 18 and 19 are Source based questions with three sub questions and are of 4 marks each.
- Section E: Question no. 20 is Map based, carrying 5 marks that includes the identification and location of significant test items. Attach the map with the answer book.

**SECTION - A**

1. Who among the following was a Greek Ambassador to the court of Chandra Gupta Maurya?  
a) Megasthenes                      b) Fa - Xian                      c) Kautilya                      d) Harisen
2. Panini's 'Ashtadhyayi' is a work on  
a) Sanskrit grammar.  
b) Sanskrit history.  
c) Sanskrit mantras.  
d) Sanskrit plays.
3. Archaeologists have found evidence of a ploughed field with two sets of furrows at right angles to each other at \_\_\_\_\_.  
a) Cholistan (Haryana)  
b) Banawali (Haryana)  
c) Kalibangan (Rajasthan)  
d) Shortughai (Afghanistan)
4. In the following question, read the following statements: Assertion (A) and Reason(R). Choose the correct alternative among the codes given below:  
**Assertion (A):** From c. 500 BCE norms were compiled in Sanskrit texts known as the Dharma shatras and Dharma sutras.  
**Reason (R):** Brahmanas laid the code of social behaviour for the society in general  
**Codes:**  
a) Both A and R are true and R is the correct explanation of A.  
b) Both A and R are true but R is not the correct explanation of A.  
c) A is true but R is false.  
d) A is false but R is true

5. Identify the image of the coins



- a) Shaka coin
  - b) Satavahana coin
  - c) Gupta coin
  - d) Vakataka coin
6. Purushasukta in which we find the mention of Varna system was a part of
- a) Rig Veda
  - b) Mahabharata
  - c) Ramayana
  - d) Upanishads
7. The First Director-General of the ASI, often called the 'Father of Indian archaeology', was
- a) Alexander Cunningham.
  - b) Hargreaves.
  - c) James Burgess.
  - d) John Marshall.
8. In the following question, read the following statements: Assertion (A) and Reason(R). Choose the correct alternative among the codes given below:  
**Assertion (A):** Magadha was the most powerful Mahajanapada  
**Reason (R):** Magadha was rich with its fertile lands, iron mines and elephants  
**Codes:**
- a) Both A and R are true and R is the correct explanation of A.
  - b) Both A and R are true but R is not the correct explanation of A.
  - c) A is true but R is false
  - d) A is false but R is true
9. Endogamy means?
- a) Marriage outside caste
  - b) Marriage within kin group
  - c) A woman having several husbands
  - d) A man having several wives
10. Study the following statements regarding the identification of centres of craft production
- I. Archaeologists look for raw materials such as stone nodules, copper ore, shells etc
  - II. They study the soil texture
  - III. They find unfinished objects, rejects and waste materials
  - IV. They try to have chemical analysis of the soil
- Which of the above are reasons for identifying centres of craft production?
- a) I & II
  - b) II & III
  - c) I & III
  - d) III & IV

11. Who was known as Devanam Piyadassi?

- a) Chandra Gupta
- b) Chandra Gupta Mourya
- c) Ashoka
- d) Samudra Gupta

12. Consider the following statements

I. The Harappan Civilisations was the development of urban centres

II. The most distinctive features of Harappan cities were the carefullyplanned drainage system

III. Harappan roads and streets were laid out along an approximate grid pattern

Which of the above statements is/are correct about Harappan civilisation?

- a) I
- b) II
- c) I & II
- d) I, II, & III

### SECTION - B

13. List down the sources of Mouryan History. What do you understand about Mouryan administration

**OR**

Explain the limitations of Inscriptions as a source of History.

14. What do you know about the Author/ Author's of Mahabharata.?

15. Compare and contrast the Non cooperation movement with civil disobedience movement.

**OR**

How do we know about Mahatma Gandhi?

### SECTION - C

16. Explain the teachings of Buddha.

**OR**

Explain the teachings of Jainism and its impact on Indian History.

17. Mention some of the main features of Harappan cities.

**OR**

Why the Harappan script known as an Enigma?

### SECTION - D

18. **Source Based Question**

By making peace, you honour your father and me, as well as your well-wishers. It is the wise man in control of his senses who guards his kingdom. Greed and anger drag a man away from his profits; by defeating these two enemies a king conquers the Earth. You will happily enjoy the Earth, my son, along with the wise and heroic Pandavas. There is no good in a war, no law (dharma) and profit (artha), let alone happiness; nor is there (necessarily) victory in the end. Don't set your mind on war.

- (i) Where was the war of Mahabharata fought? [1]
- (ii) Name the two sides between whom the war of Mahabharata was fought. [1]
- (iii) What type of succession was followed by the kingdom of Hastinapur? [2]

**19. Source Based Question**

'What I object to, is the craze for machinery as such. The craze is for what they call labour saving machinery. Men go on "saving labour", till thousands are without work and thrown on the open streets to die of starvation. I want to save time and labour, not for a fraction of mankind, but for all; I want the concentration of wealth, not in the hands of few, but in the hands of all.'

- (i) According to Gandhiji what was the importance of spinning? [1]
- (ii) Why was Gandhiji critical of modern day machines? [1]
- (iii) How did Mahatma Gandhi's clothing help him establish close contact with common people? [2]

**SECTION E**

20. (a) On the given Map of India, locate and label the following with appropriate symbols.

- i. Kalibangan, A Harappan site
- ii. Sanchi, a Buddhist stupa
- iii. Magadha, the greatest of all 16 Mahajanapadas

(b) On the same map label the following places.

- A. The place Mahatma Gandhi held his first satyagraha in India
  - B. The place Jalianwalabagh massacre happened in April 1919
-



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Political Science  
Maximum Marks - 50

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### General Instructions:

1. The question paper consists of five sections (A, B, C, D and E) with 22 questions in total.
  2. All questions are compulsory.
  3. Question numbers 1-12 are multiple choice questions of one mark each.
  4. Question numbers 13-15 are of 2 marks each. Answers to these questions should not exceed 50-60 words each.
  5. Question numbers 16-17 are of 4 marks each. Answers to these questions should not exceed 100-120 words each.
  6. Question numbers 18-20 are passage, cartoon and map-based questions. Answer accordingly.
  7. Question numbers 21-22 are of 6 marks each. Answers to these questions should not exceed 170-180 words.
- 

### SECTION - A

1. The Russian Revolution was inspired by the ideals of \_\_\_\_\_ as opposed to capitalism and need for an \_\_\_\_\_ society.
  - A. Socialism, Egalitarian
  - B. Communal, Religious
  - C. Socialism, Religious
  - D. Communal, Egalitarian
2. Who was the President of USSR during Cuban Missile Crisis ?
  - A. Abraham Lincon
  - B. John. F Kennedy
  - C. Bill Clinton
  - D. None of the above
3. Mikhail Gorbachev was,
  - A. General Secretary of the Communist Party of USSR.
  - B. A leader of Western European countries.
  - C. Founder of Communist Party of Russia.
  - D. A leader against reforms in the USSR
4. \_\_\_\_ witnessed a civil war that went on for ten years till 2001.
  - A. Dagestan
  - B. Tajikistan
  - C. Chechnya
  - D. Greece

5. When did the second world war start?

- A. 1947
- B. 1909
- C. 1919
- D. 1939

6. When did the Berlin Wall fall?

- A. 1990
- B. 1989
- C. 1987
- D. 1993

**Assertion-Reason Question**

**Direction** –Question 7 to 9 are given below, there are two statements marked as Assertion (A) and Reason (R) . Read these statements and choose one correct answer from the given options.

- A. Both A and R are true and R is the correct explanation of A
- B. Both A and R are true and R is not the correct explanation of A
- C. A is true, but R is false
- D. A is false, but R is true

7. **Assertion:** Shock therapy policies resulted in a sharp economic downturn and a period of high inflation in many transition economies.

**Reason:** Sudden removal of price controls, liberalisation of trade and the privatisation of state owned enterprises created economic instability and lead to spike in inflation rates.

8. **Assertion:** Gorbachev's policies of Glasnost and Perestroika where instrumental in the disintegration of the Soviet Union.

**Reason:** Gorbachev's reforms created a climate of political openness and economic restructuring that led to increased demands for autonomy and independence from the constituent republics.

9. **Assertion:** Movement of the people of Hyderabad State against the Nizams rule had gathered force and momentum.

**Reason:** Peasantry, and women join hands against the oppressive rule of the Nizam.

10. The rulers of most of the Princely states had agreed to become a part of the Union of India

- 
- A. On 15<sup>th</sup> August, 1947
  - B. Before 15<sup>th</sup> August, 1947
  - C. On 26<sup>th</sup> January, 1950
  - D. After 26<sup>th</sup> January, 1950

11. What was the percentage of Muslim population in India in 1951?

- A. 12%
- B. 15%
- C. 12.5%
- D. 13.3%

12. Which two states were bifurcated on the basis of religious majority?

- A. Gujarat and Punjab
- B. Gujarat and Rajasthan
- C. Punjab and Bengal
- D. Bengal and Gujarat

**SECTION B**

13. How the formation of linguistic states helped in strengthening the foundation of democracy and the process of national integration in India.

14. Describe any two features of Central Asian Republics.

15. Write any two Arms Control Treaty and explain in brief.

**SECTION - C**

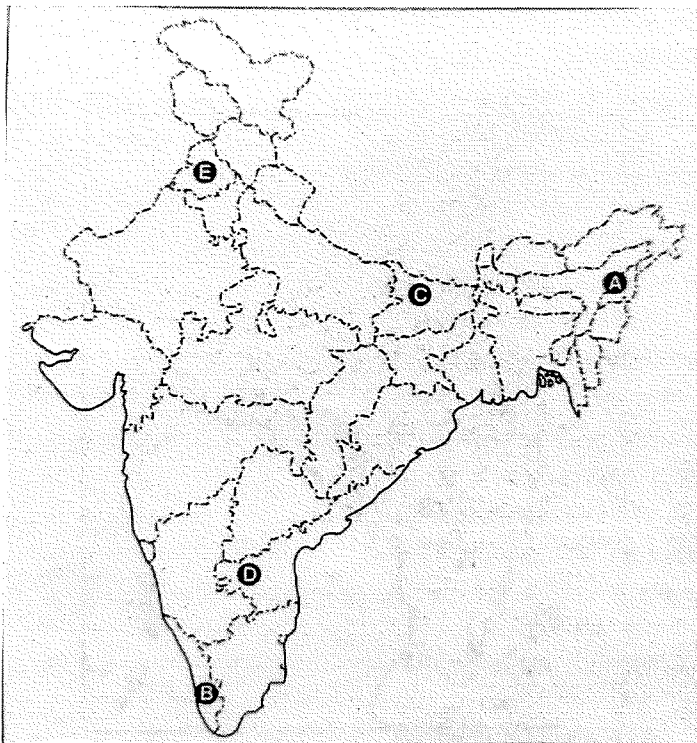
16. Describe any four factors that make most of the former Soviet Republics prone to conflicts and threats.

17. The 3 challenges faced by India at the time of independence are yet to be resolved completely. Do you agree with the statement? Give 3 reasons in support of your answer.

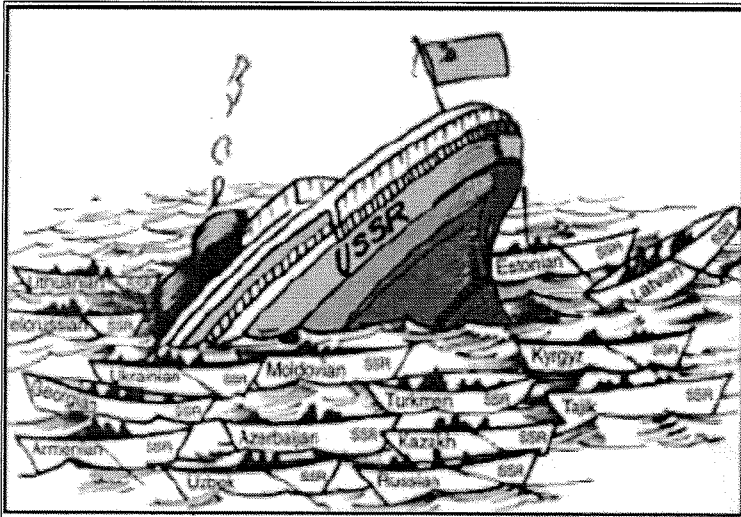
**SECTION - D (Source based)**

18. In the given political outline map of India, 5 states have been marked as A,B,C, D and E. Identify any four of these states on the basis of information given below and write their correct names in your answer book along with the respective serial number of the information used and the concerned alphabet given in the map.

- i. The state from which Haryana was carved out.
- ii. The state which was created in 1963.
- iii. The state from which Jharkhand was carved out.
- iv. The state which was formed by separating Telugu speaking areas from Madras, now Tamil Nadu.
- v. The state where the Communist Party government was formed in 1957.



19. Read the following cartoon and answer the following questions.



- i. What does this cartoon signify? (1)
- ii. Which were the three major republics of USSR? (1)
  - A. Poland , Cuba, Russia
  - B. Sweden, Germany, France
  - C. Russia , Ukraine , Belarus
  - D. Ukraine , Poland , Sweden
- iii. The term largest garage sale in history is associated with. (1)
  - A. Cuban Missile Crisis
  - B. Bolshevik Revolution
  - C. Gulf War
  - D. Shock Therapy
- iv. The Union of Soviet Socialist Republics came into being after the Socialist Revolution in Russia in.. (1)
  - A. 1919
  - B. 1914
  - C. 1917
  - D. 1991

20. Read carefully the passage given below and answer the following questions:

The Cold War was not simply a matter of power rivalries, military alliances and of balance of power. These were accompanied by a real ideological conflict as well, a difference over the best and most appropriate way of organising political, economic and social life all over the world.

- i. Why is a war like situation called Cold War? (1)
- ii. Identify the military pact and mention one ally's of each signed by the two super powers to balance the power rivalries. (1)
- iii. Differentiate between the ideologies represented by the rival blocs. (2)

#### SECTION - E

21. Describe the factors that led to the disintegration of USSR?
22. How did the reorganization of states took place in India after its independence?



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
**QUALIFYING EXAMINATION (2025-26)**

**Class - XII**  
**Time - 2 Hours**

**Subject - Geography**  
**Maximum Marks - 50**

**GENERAL INSTRUCTIONS:**

- (i) This question paper contains 22 questions. All questions are compulsory.
- (ii) This question paper is divided into five sections A, B, C, D and E.
- (iii) Section A Question Nos.1 to 11 are Multiple Choice type questions. Each question carries 1 mark.
- (iv) Section B Question Nos. 12 and 13 are Source based questions. Each question carries 3 marks.
- (v) Section C Question Nos.14 to 17 are Short Answer type questions. Each question carries 3 marks. Answer to these questions shall be written in 80 to 100 words.
- (vi) Section D Question Nos. 18 to 20 are Long Answer type questions. Each question carries 5 marks. Answer to these questions shall be written in 120 to 150 words.
- (vii) Section E Question Nos. 21 and 22 are Map based questions. Each question carries 3 marks.
- (viii) There is no overall choice given in the question paper. However, an internal choice has been provided in few questions in all sections other than Sections A and B.

**SECTION A**

**Question numbers 1 to 11 are Multiple Choice Type Questions.**

**[11x1=11]**

1. Consider the following statements and choose the correct answer with the help of the given options. [1]  
**Assertion:** The dichotomy between physical and human is not a very valid one.  
**Reason:** Nature and human are inseparable elements and should be seen holistically.  
**Options:**  
(A) Both (A) and (R) are true but (R) is not the correct explanation of (A).  
(B) Both (A) and (R) are true and (R) is the correct explanation of (A).  
(C) Both (A) and (R) are incorrect.  
(D) (A) is correct but (R) is incorrect.
2. Who among the following defined "Human geography is the synthetic study of relationship between human societies and earth's surface."? [1]  
(A) Ratzel  
(B) Paul Vidal de la Blache  
(C) Ellen C. Semple  
(D) Griffith Taylor
3. Which one of the following is not a push factor? [1]  
(A) Natural disasters  
(B) Unemployment  
(C) Epidemics  
(D) Medical facilities

4. Which of the following is NOT correct related to migration? [1]
- (A) Migration is one of the ways by which the population size changes.
  - (B) Migration may be permanent, temporary or seasonal.
  - (C) Migration may take place from urban to rural areas.
  - (D) Migrants who move into a new place are called Emigrants.

5. The National Youth Policy-2014 has defined 'youth' as persons in the age group of [1]
- (A) 15-29 years
  - (B) 15-20 years
  - (C) 20-30 years
  - (D) 15-25 years

6. Which one of the following is the smallest linguistic group of India? [1]
- (A) Sino - Tibetan
  - (B) Austric
  - (C) Indo - European
  - (D) Dravidian

7. Match the Column I with Column II and choose the correct option. [1]

**Column I**

- i. Clustered settlement
- ii. Semi- clustered settlement
- iii. Hameleted settlement
- iv. Dispersed settlement

**Column II**

- a. Isolated settlement
- b. Units are locally known as Panna, Para, Palli etc.
- c. Fragmented settlement
- d. Closely built up area of houses

**Options:**

- (A) i-a, ii-b, iii-c, iv-d
  - (B) i-d, ii-c, iii-b, iv-a
  - (C) i-b, ii-a, iii-c, iv-d
  - (D) i-c, ii-b, iii-a, iv-d
8. Choose the correct pair from the following: [1]
- (A) Industrial town - Vishakhapatnam
  - (B) Transport Town - Satna
  - (C) Administrative town - Bhopal
  - (D) Commercial Town - Bhilai
9. The characteristics of an agricultural crop in India are given below. Read them carefully and identify crop. [1]

- It is a tropical crop.
- It is grown in Kharif season in semi-arid areas of the country.
- It requires clear sky during flowering stage.
- Leading producers of this crop are Gujarat and Maharashtra.

**Crop :**

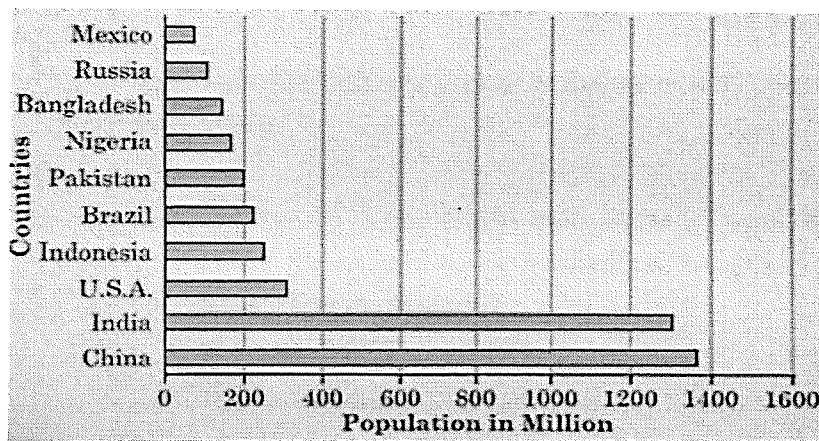
- (A) Tea
- (B) Cotton
- (C) Maize
- (D) Jute

10. In which of the following group of countries of the world HYVs of wheat and rice were developed? [1]
- (A) Japan and Australia  
 (B) Mexico and Philippines  
 (C) U.S.A. and Japan  
 (D) Mexico and Singapore
11. Which of the following states has started the 'Neeru-Meeru' programme? [1]
- (A) Andhra Pradesh  
 (B) Gujarat  
 (C) Rajasthan  
 (D) Karnataka

**SECTION B**

Question numbers 12 and 13 are Source-based Questions. [2x3=6]

12. Study the given figure carefully and answer the following questions: [3x1=3]



Most Populous Countries

- (I) Which two factors help us to understand the demographic transition characteristics of any area?
- (II) How many total countries of North America continent are shown in the figure?
- (III) Who said about the population of Asia that "Asia has many places where people are few and few place where people are very many"?
13. Read the passage carefully and answer the questions that follow: [3x1=3]
- India has traditionally been an agrarian economy, and about two-third of its population have been dependent on agriculture. Hence, development of irrigation to increase agricultural production has been assigned a very high priority in the Five Year Plans, and multipurpose river valleys projects, like the Bhakra-Nangal, Hirakud, Damodar Valley, Nagarjuna Sagar, Indira Gandhi Canal Project, etc., have been taken up. In fact, India's water demand at present is dominated by irrigational needs.
- Agriculture accounts for most of the surface and groundwater utilisation, it accounts for 89 per cent of the surface water and 92 per cent of the groundwater utilisation. While the share of industrial sector is limited to 2 per cent of the surface water utilisation and 5 per cent of the ground-water, the share of domestic sector is higher (9 per cent) in surface water utilisation as compared to groundwater. The share of agricultural sector in total water utilisation is much

higher than other sectors. However, in future, with development, the shares of industrial and domestic sectors in the country are likely to increase.

(I) Why has development of irrigation been assigned a very high priority in the Five Year Plans?

(II) In which two sectors usage of water are likely to increase in the future?

(III) Why is irrigation needed in agriculture sector in India?

### SECTION C

**Question numbers 14 to 17 are Short Answer Type Questions.**

**[4x3=12]**

14. "The imprints of human activities are created everywhere." Evaluate the statement in context of humanisation of nature. [3]

**OR**

Explain the concept of 'nondeterminism' with suitable examples.

15. Explain any three pull factors that influence the migration of population in the world. [3]

16. What makes rural settlement different from urban settlement in India? [3]

17. Describe any three advantages of rainwater harvesting. [3]

### SECTION D

**Question numbers 18 to 20 are Long Answer Type Questions.**

**[3x5=25]**

18. Define the term 'Density of Population'. Explain four geographical factors affecting the distribution of population in the world. [5]

19. A. Explain the distribution of population in India. [5]

**OR**

B. Examine the different aspects of the growth of population in India during 1921-1951 and 1951-1981.

20. A. Explain the two types of farming on the basis of main source of moisture for crops. [5]

**OR**

B. How low productivity, small farm size and fragmentation of landholdings are the major problems of Indian agriculture?

### SECTION E

**Question numbers 21 & 22 are Map based questions having 3 sub-parts each. [2x3=6]**

21. On the given political map of the world, four geographical features have been marked as A, B, C and D. Identify any three with the help of the following information and write their correct names on the lines drawn near each feature. [3]

(A) An area of subsistence gathering in South America

(B) A major area of nomadic herding in Africa

(C) A major area of commercial livestock rearing in Australia

(D) A major area of extensive commercial grain farming in North America

22. Locate and label any three of the following geographical features on the Political Outline map of India with appropriate symbols: [3]

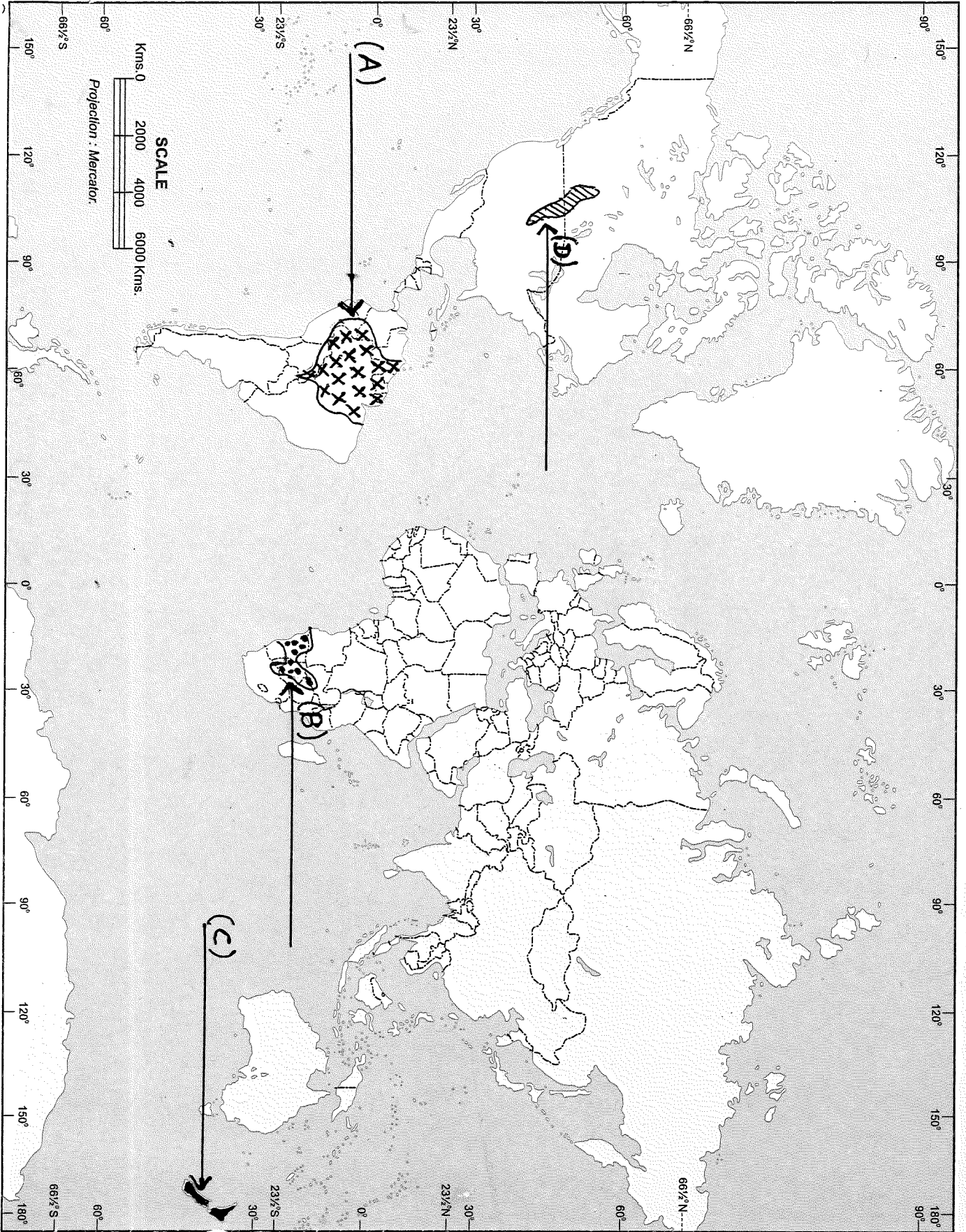
(A) The state with lowest population density

(B) The state with highest population density

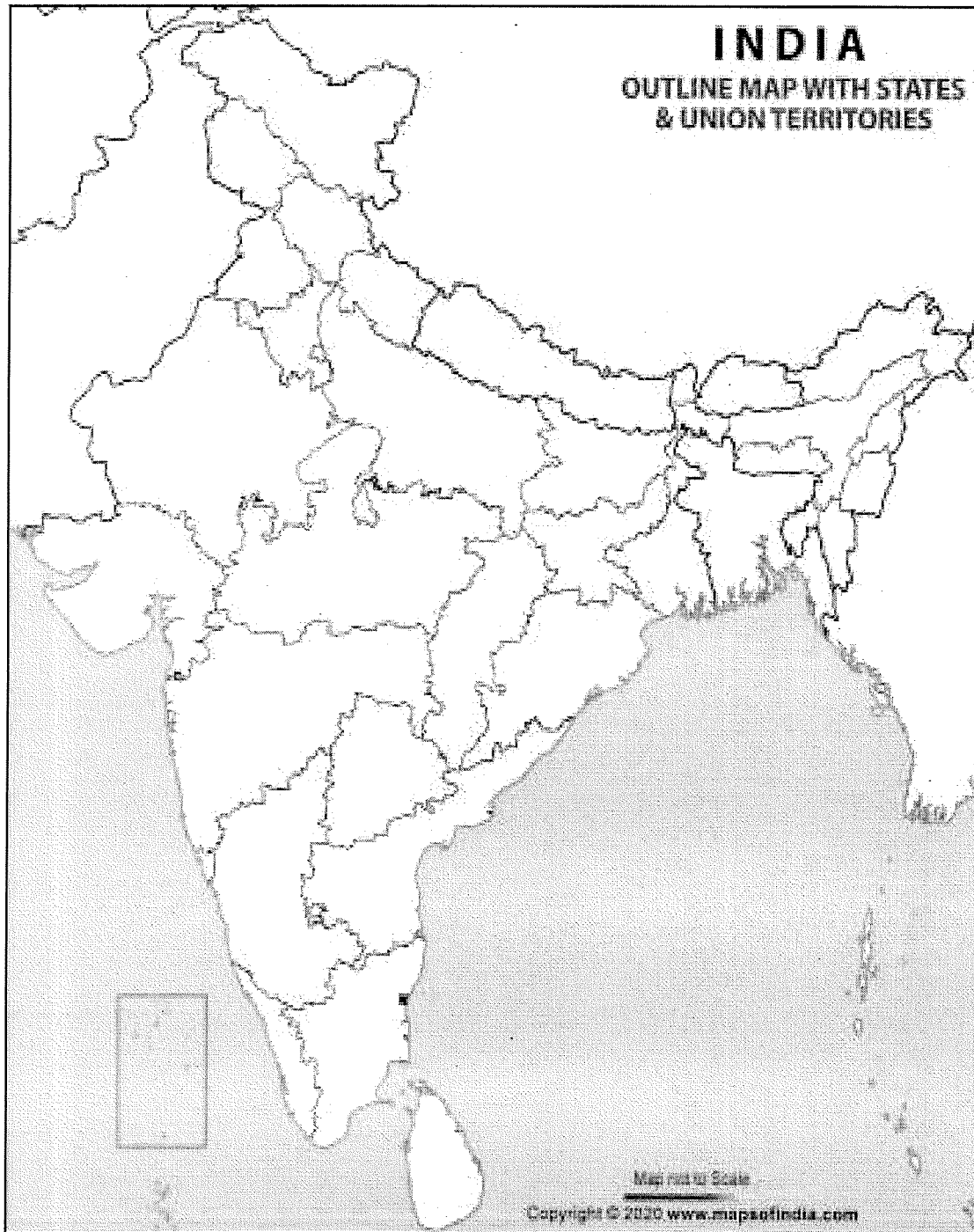
(C) The state leading in the production of wheat

(D) The state leading in the production of tea

# THE WORLD - POLITICAL



Q.22





# DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII

Time - 2 Hours

Subject - Sociology

Maximum Marks - 50

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### General Instructions:

1. Questions 1 to 10 are carrying 1 mark each.
  2. Questions 11 to 16 are of 2 marks each and may be answered in 30 words .
  3. Questions 17 to 20 are of 4 marks each and may be answered in 80 words.
  4. Question 21 is of 6 marks and Question 22 carries 6(4+2) marks and is to be answered with the help of the passage given.
- 

### SECTION A

1. The first national family planning policy was announced in the year----- .
  - A. 1949
  - B. 1952
  - C. 1975
  - D. 1959
2. According to Thomas Robert Malthus, humanity is condemned to live in poverty forever because the growth of \_\_\_ will always be overtaken by population growth. While population rises in geometric progression agricultural production can only grow in arithmetic progression.
  - A. Agricultural production
  - B. Financial investment
  - C. Industrial production
  - D. Social movements
3. In the theory of demographic transition, there are three basic phases of population growth. The first stage is that of \_\_\_\_\_ in a society that is underdeveloped and technologically backward. Growth rates are low, because both the death rate and the birth rate are very high, so that the difference between the two is low.
  - A. High population growth
  - B. Low population growth
  - C. Medium population growth
  - D. Population loss
4. The term caste In the Indian context comprises of.....
  - A. Tribes
  - B. Varna
  - C. Jati
  - D. Both b and c
5. Which of the following is true for caste?
  - A. It is a choice
  - B. It is endogamous
  - C. It is not linked to occupation
  - D. It is based on egalitarianism

6. \_\_\_\_\_ passed a law that recognised SCs and STs
- A. The untouchability offences act of 1955
  - B. The Government of India act 1935
  - C. The schedule cast act 1989
  - D. The schedule tribe Act 2005

**OR**

The concept of Sanskritization and dominant caste as processes of change was coined by

- A. Jyotiba Phule
  - B. Periyar
  - C. M N Srinivas
  - D. D Ayankkali
7. Which of the following tribe have turned into settled agriculture
- A. Birhore
  - B. Santhal
  - C. Hos
  - D. Gonds
8. If women were biologically unfit to be inheritors and heads of families, how did Matrilineal societies of----still work for centuries?
- A. Khasis of Meghalaya
  - B. Patidars of Gujarat
  - C. Nainars of Kerala
  - D. All of these
9. ----- of the Indian National Congress issued a declaration on the Fundamental Rights of Citizenship in India. It reads that woman shall have the Rights to vote.
- A. Amritsar session
  - B. Madras session
  - C. Lahore session
  - D. Karachi session
10. Name the person who founded 'Satya Shodhak samaj'
- A. Dr. BR Ambedkar
  - B. Alluri Sitaram Raju
  - C. Jotiba Phule
  - D. Periyar

**OR**

One of the activists and scholars of disability Anita Ghai argues that in visibility of disabled can be compared to the Ralph Ellison's novel .....

- A. Invisible society
- B. Invisible people
- C. Invisible Man
- D. Invisible discrimination

## SECTION - B

11. Define The term Demography.
12. Define child sex ratio.

**OR**

High ratio of infant and maternal mortality rate indicate backwardness and poverty. Justify.

13. In terms of language mention four categories of tribes.
14. Define the term Sanskritisation.
15. What is Social exclusion?
16. Explain Prejudices.

## SECTION - C

17. Explain the Malthusian theory of population growth?

**OR**

How does the changing age structure offer a demographic dividend for India?

18. What changes did colonialism bring about in the caste system?
19. What evidence would you offer against the view that tribes are primitive communities, living isolated, untouched by civilization.
20. What were the provisions of the fundamental rights of citizenship declared by Indian national congress in 1931.

## SECTION-D

<b>TABLE 4: LITERACY RATE IN INDIA</b>				
<b>(Percentage of population 7 years of age and above)</b>				
<b>Year</b>	<b>Persons</b>	<b>Males</b>	<b>Females</b>	<b>Male-Female gap in literacy rate</b>
1951	18.3	27.2	8.9	18.3
1961	28.3	40.4	15.4	25.1
1971	34.5	46.0	22.0	24.0
1981	43.6	56.4	29.8	26.6
1991	52.2	64.1	39.3	24.8
2001	65.4	75.9	54.2	21.7
2011	73.0	80.9	64.6	16.3

*Source: Bose (2001:22); Census of India 2011.*

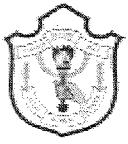
21. Based on the reading of the above data, answer the following questions.
  - (i) What are the different factors determining in literacy rates in our country? (2)
  - (ii) How do inequalities in literacy rate lead to inequality across generation? (4)

22. Read the given passage and answer the following questions .

Who are these women you give such names to? Whose womb did you take your birth in? Who carried the killing burden of you for nine months ? Who was the saint who made you the light in her eye. How would you feel if someone said about your mother, "That old chap's mother, you know , she's a gateway to hell'. Or your sister, "that so-and-so-s' sister, she's a real storehouse Of deceit' . . . . Would you just sit and listen to their bad words?.....Then you get blessed with a bit of education and promoted to some important new office- and you start feeling ashamed of your first wife. Money works its influence on you and you begin to say to yourself , what does a wife matter after all? Don't we just give them a few rupees a month and keep them at home like any other servant , to do the cooking and look after the house? You begin to think of her like some female slave you've paid for... if of your horses died it wouldn't take long to replace it, and there's no great labour needed to get another wife either. .. The problem is Yama hasn't got time to carry off wives fast enough, or you'd probably get through several different ones in one day!

(FROM STREE PURUSH TULNA 1882)

- A. Were social reform movements successful to attain equality dignity and security for women ? Give reasons for your answer. (4)
- B. Name any two women social reformers. (2)
-



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Psychology  
Maximum Marks- 50

### General instructions

- All questions are compulsory except where internal choice has been given. Question Nos. 1 -15 in Section A carry 1 mark each.
- You are expected to answer them as directed.
- Question Nos. 16-18 in Section B are very short answer type-I questions carrying 2 marks each. Answer to each question should not exceed 40 words.
- Question Nos. 19-20 in Section C are short answer type-II questions carrying 3 marks each. Answer to each question should not exceed 80 words.
- Question Nos. 21 - 22 in Section D are long answer type - I questions carrying 4 marks each. Answer to each question should not exceed 200 words.
- Question No. 23 in Section E are long answer type - II questions carrying 6 marks. Answer to each question should not exceed 300 words.
- Question No. 24 in Section F are based on cases given. Answer to each 1 mark question should not exceed 20 words. Answer to each 2 marks question should not exceed 30 words.

### Section A - 1 Mark Each (1 × 15 = 15 Marks)

1. Ananya wants to perform well in the examination and hence starts attending classes regularly, taking notes, setting study targets, etc. Which theory of intelligence gives importance to this stage of planning?
  - (a) Hierarchical Model of Intelligence
  - (b) PASS Model
  - (c) Theory of Multiple Intelligences
  - (d) Structure of Intellect Model of Intelligence
2. A psychologist administers a test which minimizes the use of language and cultural knowledge. This test is:
  - (a) Verbal test
  - (b) Culture-biased test
  - (c) Non-verbal test
  - (d) Achievement test
3. A student believes they are poor in academics despite scoring well repeatedly. This reflects a low:
  - (a) Self-concept
  - (b) Self-esteem
  - (c) Self-regulation
  - (d) Self-efficacy
4. An adolescent resists peer pressure to take part in risky behavior. This is an example of:
  - (a) High self-concept
  - (b) Emotional intelligence
  - (c) Self-regulation
  - (d) Self-esteem

5. Which of the following is the **most accurate** example of self-efficacy?
- (a) Believing you are intelligent
  - (b) Feeling proud after scoring well
  - (c) Being confident in your ability to solve a math problem
  - (d) Comparing yourself to others
6. A student under exam stress begins exercising daily to manage anxiety. This is an example of:
- (a) Avoidance coping
  - (b) Emotion-focused coping
  - (c) Problem-focused coping
  - (d) Maladaptive coping
7. Which of the following scenarios best represents **eustress**?
- (a) Sudden job loss
  - (b) Preparing for a much-awaited competition
  - (c) Dealing with a chronic illness
  - (d) Facing a traffic jam
8. During a group presentation, A Samrat starts sweating, his heart races, and he forgets part of his speech. These symptoms are part of:
- (a) Alarm reaction stage
  - (b) Resistance stage
  - (c) Exhaustion stage
  - (d) Recovery stage
9. Calculate the MA of a 11 -year-old boy who has an IQ of 120.
10. Rashmi is a stay-at-home mother and a committed wife. She takes very good care of her home and family. So much so that she often puts others' needs ahead of herself. She wakes up at 5 am and is busy taking care of home chores, kids, and her husband throughout the day. She finds it difficult to say no to their demands and believes that she is responsible for fulfilling all of their needs. She hardly finds time to do what she wants. When her day ends at 11 pm she is exhausted. Over a period of, time Sita finds that her irritability has increased and her energy levels are dipping. What is contributing to her Exhaustion or Stress?
- i. Poor Self -Care
  - ii. Irrational beliefs, Poor Self-care, and lack of assertiveness
  - iii. Inability to say No to others
  - iv. Too many responsibilities
11. Scientific Research has shown that fasting has many health benefits including preventing diseases like cancer. The Indian Culture has always had the tradition of fasting on special days. Interestingly fasting also offers psychological benefits such as :
- (a) It teaches self-control
  - (b) It teaches how to regulate one's needs and desires
  - (c) It teaches happiness
  - (d) It teaches how to survive without food.

**Choose the correct option from the following:**

- (i) a
- (ii) c and d
- (iii) a and b
- (iv) d

12. **Assertion (A):** People with high self-efficacy recover faster from failures.  
**Reason (R):** Self-efficacy leads to the belief that one can overcome challenges.  
(a) Both A and R are true, and R is the correct explanation of A.  
(b) Both A and R are true, but R is not the correct explanation of A.  
(c) A is true, R is false.  
(d) A is false, R is true.
13. **Assertion (A):** Stress can sometimes enhance performance.  
**Reason (R):** Mild stress increases alertness and motivation.  
(a) Both A and R are true, and R is the correct explanation of A.  
(b) Both A and R are true, but R is not the correct explanation of A.  
(c) A is true, R is false.  
(d) A is false, R is true.
14. **Assertion (A):** Culture-fair tests are better indicators of academic achievement.  
**Reason (R):** Academic success depends only on intelligence.  
(a) Both A and R are true, and R is the correct explanation of A.  
(b) Both A and R are true, but R is not the correct explanation of A.  
(c) A is true, R is false.  
(d) A is false, R is true.
15. After failing an exam, Ravi blames the teacher and avoids studying. This is an example of:  
(a) Rational coping  
(b) Resilience  
(c) Avoidance-oriented coping  
(d) Assertiveness

**Section B - 2 Marks Each (3 × 2 = 6 Marks)**

16. Aarav finds it easy to understand complex mathematical problems but struggles to express his ideas in writing. Based on this observation, which two types of intelligence can be identified in him? Justify your answer briefly.
17. Priya often avoids taking part in competitions due to fear of criticism, even though she is capable. What does this suggest about her self-concept? Define self-concept.
18. Differentiate between Eustress and Distress.

**Section C - 3 Marks Each (2 × 3 = 6 Marks)**

19. Explain the General Adaptation Syndrome (GAS) given by Hans Selye.
20. Meena has been preparing for her board exams. She has sleepless nights and palpitations but still continues to study with focus. How would you explain this using the concept of stress and performance?

**Section D - 4 Marks Each (3 × 4 = 12 Marks)**

21. Explain four types of intelligence as proposed by Gardner in his theory of Multiple Intelligences.

22. A group of college students went on a trek. During the journey, they faced an unexpected storm, food shortage, and an injury. Discuss four coping strategies they can use to handle such a crisis effectively.

23. What is self? How does the Indian notion of self differ from the western perspective.

**Section E - 6 Marks (1 × 6 = 6 Marks)**

24. Ria is known to adjust easily in various social settings and maintains healthy relationships with her peers. She is aware of her strengths and weaknesses and is confident in handling academic and personal challenges.

Using this scenario, analyze the components of self reflected in her behavior. Also, explain how a balanced self-concept benefits an individual in day-to-day life.

**OR**

Discuss the concept of self with reference to its different aspects. Explain how culture influences the development of self.

**Section F - Case Study-Based Question**

**25. Case Study:**

Aditya, a 16-year-old student, was an average performer in school. However, after joining a music class, he discovered that he could play instruments by ear and quickly learned new rhythms. His teacher suggested he participate in a music competition. Despite initial hesitation due to low confidence, he eventually agreed. After performing well, he now feels more positive about himself and is willing to try new activities.

**Questions:**

- i. What type of intelligence does Aditya display in this scenario? Justify. [1]
  - ii. Identify one factor that helped Aditya develop a more positive self-concept. [1]
  - iii. How did Aditya's self-esteem change as a result of this experience? Explain. [1]
  - iv. What role did encouragement and achievement play in building Aditya's confidence? [2]
-



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Physical Education  
Maximum Marks - 50

### GENERAL INSTRUCTIONS:-

- The question paper consists of 5 sections and 25 Questions.
- Section A consists of questions 1-13 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
- Section B consist of questions 14-17 carrying 2 marks each and are very short answer types and should not exceed 60-90 words.
- Section C consist of questions 18-22 carrying 3 marks each and are short answer type and should not exceed 100-150 words.
- Section D consist of questions No. 23 carrying 4 marks.
- Section E consist of question 24-25 carrying 5 marks each and are short answer types and should not exceed 200-300 words.

### SECTION - A

- Which one is a macro nutrient [1]  
(a) fat (b) protein (c) carbohydrate (d) all of these
- Finance committee comes under post tournament committee- true/false [1]
- What is the other name of vitamin b3 [1]  
(a) riboflavin (b) biotin (c) niacin (d) thiamin
- Which one is a micro mineral? [1]  
(a) sodium (b) potassium (c) iron (d) calcium
- Which disease is caused by deficiency of vitamin c [1]  
(a) anaemia (b) scurvy (c) pelegra (d) beri beri
- Berger system also known as \_\_\_ tournament [1]  
(a) league (b) knock out (c) combination (d) none
- Which vitamin is discovered by MC Colloum [1]  
(a) vitamin E (b) vitamin K (c) vitamin A (d) vitamin C
- What is the duration of physical activities at any intensity of 3-4 years of age. [1]  
(a) 180 minutes (b) 90 minutes (c) 60 minutes (d) 30 minutes
- Sakshi malik won Olympic medal in [1]  
(a) Weight lifting (b) wrestling (c) boxing (d) tennis
- Which one is not a condition of female athlete triad [1]  
(a) Eating disorder (b) amenorrhea (c) osteoporosis (d) sensory disorder

11. In which eating disorder and individual binges and burges? [1]  
 (a) Anaroxia (b) Bulimia (c) Both of them (d) None of these
12. Ricket is one of the reason for postal deformity -true or false [1]
13. Knock knee is also known as \_\_\_\_\_ [1]

**SECTION - B**

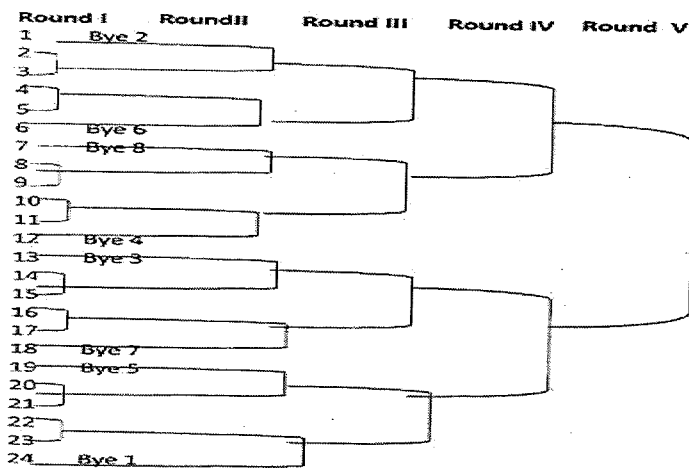
14. List down the function of sports event management. [2]
15. What is bulimia nervosa. [2]
16. Less number of female coach is one of the reason for less participation of women in sports - Explain. [2]
17. Briefly discuss what is food Intolerance. [2]

**SECTION - C**

18. Write any three corrective measures for scoliosis. [3]
19. Distinguish between intramural and extramural [3]
20. What is menarche? [3]
21. Write down the formula for British method of league tournament. [3]
22. Personality and posture are the two opposite sides of the same coin. Explain. [3]

**SECTION - D**

23. [4]



1. Which kind of tournament is this?
2. What is the formula of giving byes in lower half?
3. How to find out number of matches in this type of tournament?
4. Give an example of combination tournament related with cricket?

**SECTION - E**

24. What do you understand by nutritive and non nutritive component of diet? [5]
25. Write down the causes and corrective measures for - knock knee and flat foot. [5]



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

QUALIFYING EXAMINATION (2025-26)

Class - XII  
Time - 2 Hours

Subject - Fine Art- Painting/ Graphics  
Maximum Marks - 30

### General Instructions:

- Section-A: Attempt all Questions (Each Question will carry 1 Mark)
- Section-B: Attempt all Questions (Each Question will carry 2 Marks)
- Section-C: Attempt any two Questions (Each Question will carry 6 Marks)

### SECTION-A

Select the right answer from the given options:

[1x8=8]

1. A. **Assertion (A):** Pala miniatures are the earliest surviving examples of Indian miniature painting tradition.

**Reason (R):** They were painted on palm leaves and dealt mainly with Buddhist themes.

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is true.

B. What are wasli?

- (a) Glue used in colour pigments
- (b) Layered thin sheets of handmade paper
- (c) Colour pigments
- (d) Stone rubbing

C. Who identified Rajput miniature paintings and who did first research work on pahari paintings?

- (a) Ananda Koomara Swamy & B.N. Goswamy
- (b) Arvind Kumar Singhania & Mulk Raj Anand
- (c) Mulk Raj Anand & Ananda Koomara Swamy
- (d) B.N. Goswamy & Arvind Kumar Singhania

D. **Assertion (A):** The large size curtains decorated behind the form of Shrinathji are called 'Pichhwai'.

**Reason (R):** 'Pichhwai' is the original contribution of Nathdwara style, which is called 'Pichhwai' because it is displayed at the back of Shrinathji

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is true.

E. Which one of the following are sub-schools of Rajasthani School of miniature painting?

- (a) Jaipur, Jodhpur, Guler, Chamba
- (b) Jaipur, Kishangarh, Bikaner, Bundi
- (c) Bikaner, Chamba, Jaipur, Bundi
- (d) Garhwal, Jaipur, Bikaner, Jodhpur

F. Which style considered under Rajput – School?

- (a) Rajasthani and Company school.
- (b) Rajasthani and Mughal school
- (c) Rajasthani and Iranian school
- (d) Rajasthani and Pahari school

G. **Assertion (A):** Kangra school paintings are inspired by Vaishnavite poetry and literature.

**Reason (R):** They often illustrate texts like Gita Govinda and Bhagavata Purana

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is true.

H. **Assertion (A):** Basholi paintings are more lyrical and graceful than Kangra paintings.

**Reason (R):** Kangra paintings are known for soft lines, naturalism, and poetic themes.

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is true.

### SECTION-B

(Short answer type questions)

The answer to this question is expected around 80 to 100 words

[2x5=10]

2. (a) Write short note on Pala (Eastern) India miniature painting.

OR

(b) Write short notes on Jain (Western) Indian miniature painting.

OR

(c) How did the Central India miniature painting evolve?

3. (a) Give examples of few manuscript of indigenous tradition painting before the formulation of Court style of Rajasthani School of Art.

OR

(b) In the Basholi school, the coordination of the ornamental form of nature and the elements of folk art is seen together, which was filled with reverence and devotion by the painters of Basholi by filling them with the colour of divine and selfless love.

- (1) From your course of study identify the painting and Name of the painter.
- (2) Describe the artistic features of the painting in your own Words.

4. (a) Describing the rural and urban background, the painting from Kangra school depicts the people of Gokul moving towards the prosperous Vrindavan. Identify the painting and write the title and name of the painter. Describe the compositional arrangement of this painting.

OR

(b) Write a short note on the salient features of the Pahari School of painting.

5. (a) In this painting, Radha and Krishna have been depicted symbolically in the form of the human Soul and God. The school of this painting is Bikaner. The painting shows two episodes of love and devotion of the divine couple.
- (1) Identify the painting and its artist.
  - (2) Explain the subject matter & aesthetic beauty in brief.

OR

- (b) What was the Mughal's influence on Rajasthani school miniature painting?
6. (a) "Beauty in the depiction of women is the chief achievement of this school". Evaluate the significant role of the artist Nehal Chand & Raja Sawant Singh. In the evolution of Rajput art of miniature painting with context to his famous painting.

OR

- (b) A refined and purified form of Indian traditional art is known as the Rajasthani School of art. Appreciate the role of Mewar in the Rajasthani School of art through the painting

### SECTION-C

Attempt any two questions from the given options (Long answer type questions)

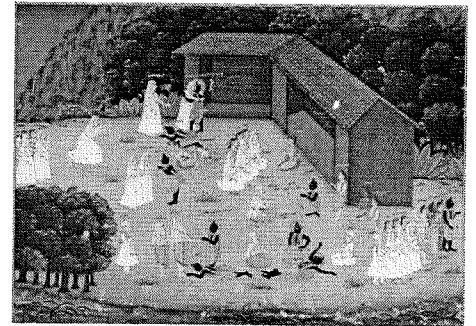
An answer to this question is expected in around 200 words

[6x2=12]

7. "Raghukul Reeti Sada Chali Aaye, Praan Jai Par Vachan Na Jaai"

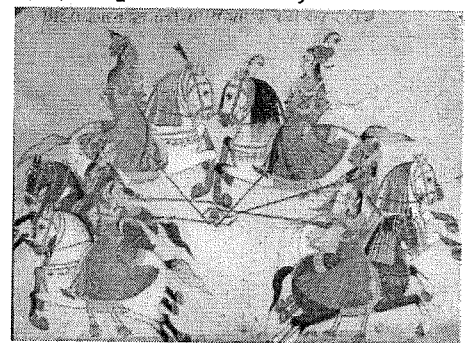
There are all together many figures put in separate groups, bringing to light the separate episodes in the drama of trying to take Rama back to Ayodhya.

In the right lower corner, Rama Listens to Viswamitra of his father's death and loses consciousness. In the next picture on the lower left Rama listens to ascetics and falls flat at their feet possibly asking forgiveness for showing weakness. The artist has done a wonderful presentation of figures on a small canvas relating an entire story in episodic form bringing the same figures in groups for Rama to express his desire of carrying out his father's wishes. Rama's cottage is dimly seen in the right hand corner and there is a bunch of bananas growing beyond that.



- (i) Name of the painting and painter (ii) medium & technique (iii) Explain the subject matter & aesthetic in brief.

8. (1) Around 1750 AD, Chaugan (Polo) emerged as a recreational game in the royal families of Rajputs. In this, the skill of player is also dependent on the tricks of horse riding. The participation of women in this game presents the best evidence of women empowerment.



- (a) Identify any one such painting included in your syllabus and write about its Titles / Name of the painter / medium & technique and sub school.
  - (b) Throw light on the composition and colour arrangement of the painting with aesthetic parameters in brief.
- (2) Based on the above statement, explain some important characteristics of the Rajasthani School of art. (Six)
9. (a) Write a short note on the Origin and development of the Rajasthani School of Art.
- (b) Why do you like or dislike of Rajasthani school painting?