

BITSAT 2025 June 25 Shift 1 Question Paper

Time Allowed :3 Hours	Maximum Marks :390	Total questions :130
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. Duration of Exam: 3 Hours
 2. Total Number of Questions: 130 Questions
 3. Section-wise Distribution of Questions:
 - Physics - 40 Questions
 - Chemistry - 40 Questions
 - Mathematics - 50 Questions
 4. Type of Questions: Multiple Choice Questions (Objective)
 5. Marking Scheme: Three marks are awarded for each correct response
 6. Negative Marking: One mark is deducted for every incorrect answer.
 7. Each question has four options; only one is correct.
 8. Questions are designed to test analytical thinking and problem-solving skills.
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1. A ball is thrown vertically upward with a speed of 49 m/s. How long will it take to return to the thrower's hand?

- (1) 5 s
 - (2) 7 s
 - (3) 10 s
 - (4) 14 s
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2. The escape velocity from the surface of a planet is v_e . What will be the escape velocity from a planet whose mass and radius are twice that of the original planet?

- (1) v_e
 - (2) $2v_e$
 - (3) $\sqrt{2}v_e$
 - (4) $4v_e$
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3. Which of the following compounds will give a positive Iodoform test?

- (1) Ethanol
 - (2) Propanol
 - (3) Methanol
 - (4) Methanal
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4. Which of the following is not a colligative property?

- (1) Osmotic pressure
 - (2) Depression of freezing point
 - (3) Elevation of boiling point
 - (4) Refractive index
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5. If the roots of the quadratic equation $ax^2 + bx + c = 0$ are real and equal, then:

- (1) $b^2 - 4ac > 0$
 - (2) $b^2 - 4ac = 0$
 - (3) $b^2 - 4ac < 0$
 - (4) $a + b + c = 0$
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6. Let $A = \begin{bmatrix} 2 & 0 \\ 0 & 3 \end{bmatrix}$. The determinant of A^3 is:

- (1) 216
 - (2) 27
 - (3) 8
 - (4) 1
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7. Choose the correct word to complete the sentence: “She was so tired that she could keep her eyes open.”

- (1) hardly
 - (2) hard
 - (3) barely
 - (4) clearly
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8. Statement: All flowers are beautiful. Some beautiful things are fragile. Conclusion I: Some flowers are fragile. Conclusion II: All beautiful things are flowers.

- (1) Only I follows
 - (2) Only II follows
 - (3) Both follow
 - (4) Neither follows
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9. Which number comes next in the series? 3, 6, 11, 18, 27, ?

- (1) 36
 - (2) 38
 - (3) 40
 - (4) 48
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