BITSAT 2023 Question Paper May 24 Shift 1

Time Allowed :3 Hours	**Maximum Marks :**390	**Total Questions :**130

General Instructions

1. The examination is conducted in **Computer-Based Test (CBT)** mode. All questions will appear on the computer screen.
2. The total duration of the examination is **3 hours**. No extra time will be granted under any circumstances.
3. The question paper consists of **Multiple Choice Questions (MCQs)**, each having four options with only one correct answer.
4. Candidates must read each question carefully before selecting the answer. Answers can be changed only within the allotted test duration.
5. The examination follows a **negative marking scheme**. Marks will be deducted for incorrect answers, while unattempted questions will not carry any penalty.
6. Use of **calculators, mobile phones, smart watches, Bluetooth devices, or any other electronic gadgets** is strictly prohibited inside the examination hall.
7. Rough work must be done only on the rough sheets provided at the test center. These sheets must be returned after the examination.
8. Candidates must ensure that they have logged in using the correct credentials. Any discrepancy should be reported immediately to the invigilator.
9. No candidate will be allowed to leave the examination hall before the completion of the test duration.
10. Candidates must maintain discipline and follow all **instructions given by the invigilators**.
11. Any form of **unfair means, impersonation, or misconduct** will lead to immediate disqualification.
12. In case of any technical issue during the examination, candidates should remain seated and inform the invigilator without panic.

1. If an object of mass m is given a velocity equal to twice the escape velocity of Earth then the velocity of the object at the point where Earth shows no Gravitational force strength would be at?

2. Photochemical smog pollutants cannot be reduced by?

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3. The statement "velocity and acceleration always act through the same straight line, either in the same or opposite direction" applies for which dimensional motions?

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4. Two inductors each of 50mH are connected in parallel, what is the equivalent inductance?

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5. Conservation of linear momentum is a necessary condition for which Kepler's laws?
(A) Kepler's First Law
(B) Kepler's Second Law
(C) Kepler's Third Law
(D) None of these

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6. The Radial Probability curve for 2s orbital.

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7. How many elements are there in period 4 of the periodic table?

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8. If a block is pushed upwards on an inclined plane with velocity v and then it comes back to the initial position, then it's velocity is
(A) equal to v
(B) more than v
(C) less than v
(D) more or less than v depending on the angle of the inclined plane.

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9. If gamma (C_p/C_v) of a gas is 1.5, then in an adiabatic process what would be the relation between T and V?

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10. An acid has pH = 4 and $pK_a = 5$, what would be the initial concentration of the acid.

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11. What would be the reaction between B and $LiAlH_4$

12. If points $A(x_1, y_1, z_1), B(x_2, y_2, z_2), C(x_3, y_3, z_3)$ are collinear then in which ratio does B divide AC?

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13. Odd one out: red, yellow, green, pink.

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14. Odd one out: saturday, monday, tuesday, thursday
