

JSUNIL TUTORIAL

CENTRAL PUBLIC SCHOOL

Subject – Science

TAJPUR ROAD, SAMASTIPUR

Time- 3 hrs.

Class – IX

MID TERM EXAM - 2018

F. M. – 80

General instructions:

- i. The question paper comprises two sections, A and B. You are to attempt both the sections separately.
- ii. All questions are compulsory.
- iii. Question number 1 to 2 in section- A are 1 mark questions and are to be answered in one word or in one sentence each.
- iv. Question numbers 3 to 5 in section- A are 2 marks questions and are to be answered in 30 words each.
- v. Question numbers 6 to 15 in section- A are 3 marks questions and are to be answered in about 50 words each
- vi. Question numbers 16 to 21 in section- A are 5 marks questions and are to be answered in about 70 words each
- vii. Question numbers 22 to 27 in section- B are based on practical skills. Each question carries 2 marks and is to be answered in brief.

SECTION – A

1. Convert 373°C to the Kelvin scale.
2. What is FYM?
3. Which of the following are tri-atomic and tetra-atomic molecules?
 CH_3Cl , CaCl_2 , NH_3 , PCl_3 , P_2O_5 , H_2O , $\text{C}_2\text{H}_5\text{OH}$
4. A particle is moving in a circular path of radius r . What would be the displacement after half a circle?
5. When does an object show weightlessness?
6. Explain interconversion of three states of matter with the help of flow chart. Name the process of each interconversion.
7. Write the cations and anions present (if any) in the following compound.
(a) CH_3COONa , (b) NaCl , (c) H_2O , (d) NH_4NO_3
8. How is prokaryotic cell different from eukaryotic cell?
9. Write a short note on blood.
10. Give the important features of division Bryophyta.
11. A train is travelling at a speed of 90 kmh^{-1} . Brakes are applied so as to produce a uniform acceleration of -0.5 ms^{-2} . Find how far the train will go before it is brought to rest?
12. An object of mass 100 kg is accelerated uniformly from a velocity of 5 ms^{-1} to 8 ms^{-1} in 6 seconds. Calculate the initial and final momentum of the object. Also, find the magnitude of the force exerted on the object.
13. Give three differences between acceleration due to gravity (g) and universal gravitational constant (G).
14. Why is it difficult to hold a school bag having strap made of a thin and strong string?
15. What is green manure?
16. Discuss the various factors which affect the rate of evaporation. Latent heat of evaporation of two liquids A and B is 100 J/kg and 150 J/kg respectively. Which one can produce more cooling effect and why?

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17. Distinguish between compounds and mixtures.

OR

Draw a neat labelled diagram of an animal cell.

18. What is a permanent tissue? Classify permanent tissues and describe them.

19. Differentiate between dicot and monocot plants.

20. Prove: $S = ut + \frac{1}{2} at^2$ graphically.

OR

Derive the mathematical formula of conservation of 'momentum'.

21. State and explain the experiment for verification of Archimedes's principle.

OR

Show that when a body is dropped from a certain height, the sum of its kinetic energy and potential energy at any instant during the fall is constant.

SECTION – B

22. Take three test tubes A, B and C containing salt solution, egg albumin in water and suspension of soil in water respectively. Paste small strips having coloured spots on one side of each test tube. Observe the coloured spots from the other sides of the test tubes through the liquid one by one. What can be observed?

23. While heating a mixture of iron filings and sulphur, eyes are kept away from vapours. Why?

24. You are shown two slides of plant tissues: parenchyma and sclerenchyma. How can you identify the sclerenchyma?

25. While doing an experiment to determine the melting point of ice, state the role of glass stirrer.

26. The density of tap water is less than that of sea water. If an object is immersed completely in both one by one, what will be the loss in weight?

27. Atul wrongly labelled a, b, c and d in the following figure as cell body, dendrite, axon and axon terminal respectively. Correct his labelling.

