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CLASS : IX **SA1 science** **MARKS : 80**

PHYSICS

I Choose the correct answer. **1 x 4 = 4**

1. SI unit of Force is

a) Joule b) Newton c) Meter d) second

2. Which of the following has more inertia?

a) Rubber ball b) Bicycle c) Bus d) Train

3. What is the force, if accelerating a 2kg mass of an object at $5ms^{-2}$

a) 10N b) 20N c) 5N d) 2N

4. A devise used measure in an auto mobile

a) Kilometerb) Odometerc) Ammeter d) Volta meter

II Answer the following questions. **1 x 2 = 2**

5. What is acceleration?

6. What is inertia?

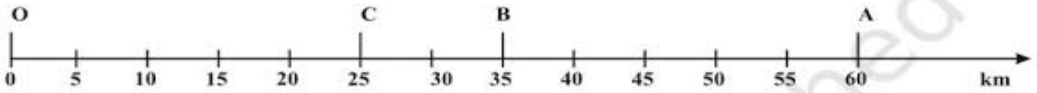
III Answer the following questions. **2 x 2 = 4**

7. Explain, why is if difficult for a fireman to hold a hose, which ejects large amounts of water at a high velocity.

8. A bus decreases its speed from $80kmh^{-1}$ to $60kmh^{-1}$ in 5s. Find the acceleration of the bus.

IV Answer the following questions. **3 x 3 = 9**

9. State all the three laws of motion.



10. An object starts its journey from point 'O' Points A, B, C are different positions at different time. First the object moves through points C and B and reaches the point A. Then the object travels back in the same path through B and reaches to Point C.

a) What is the distance travelled OC?

b) What is the displacement OC?

c) Write any one difference between distance travelled and displacement.

11. Write any one example for the following types of motion.

a) Linear motion b) Circular motion c) Periodic motion

OR

Define a) linear motion b) circular motion c) periodic motion

V Answer the following questions. 4 **x 1 = 4**

12. What is uniform and non uniform motion? What is the nature of the distance time graphs for uniform and non uniform motion of an object?

OR

a) Write any two examples for third law of motion.

b) Why do we fall in the forward direction when a moving bus brakes to a stop and fall backwards then it accelerates?

VI Answer the following questions. **5 x 1 = 5**

13. Define the following terms
a) Motion b) speed c) velocity d) Inertia e) Force

Part B : CHEMISTRY

VII choose the correct answer from the following 1 X 2 = 2
14. The movement of particles from higher concentration to lower concentration
a) sublimation b) diffusion c) solidification d) Melting
15. The method used to separate chalk powder and water
a) centrifugation b) sublimation c) filtration d) Crystallization

VIII Answer the following questions 1 X 4 = 4
16**.** what is matter?
17.define sublimation?
18.classify the following into physical change and chemical change.
Melting of ice, burning of incense stick
19. What are the components of solution.

IX Answer the following questions 2 X 3 = 6
20.what is evaporation? Mention the factors affecting evaporation.
21. Draw a labelled diagram to illustrate the process sublimation
22.differentiate between pure substance and impure substance.
OR
Differentiate between homogenous and heterogeneous mixture.
X Answer the following questions 3 X 3 =
23. Draw a flow diagram showing the motion of the particles in the 3 states of matter and write any two characteristic feature of it.
24. Write the separating method used to separate following compounds
a) butter from milk b) sea water c) iron filings in soil
OR
Differentiate between solution, suspension and colloid.
25.Draw a neat labelled diagram of the apparatus used in the distillation process.

XI Answer the following questions 4 X 1 = 4
26. How will you separate oil and water from their mixture. Draw apparatus used in this process.

Part C : BIOLOGY

VII Choose the correct answer 1 X 2 = 2
27.Power house of the cell _____
a) Chloroplast b) Mitochondria c) Ribosomes d) Lysosome

28.The organism which is made up of single cell ____

a) mushroom b) plants c) animals d) Amoeba

VIII Answer the following questions 1 X 2 = 2

29.Define tissue?

30.Name the components of phloem tissue.

IX Answer the following questions 2 X 3 = 6

31.Write the function of parenchyma and collenchyma.

32.Draw a diagram of neuron.

33.Name the best irrigation practices that can be followed in crop production management.

OR

Name some micro nutrients and macro nutrients.

X Answer the following question 3 X 4 = 12

34. Differentiate between manure and fertilizer.

35.write the function of apical Meristem, lateral Meristem and intercalary Meristem.

36. Write the structure and functions of nucleus.

OR

Write the difference between unicellular and multicellular organisms.

Write the function of chloroplast.

XI Answer the following questions 4 X 2 = 8

37. Draw a neat labelled diagram of plant cell.

38. a) Name the types of crops based on the duration of growing the crops. Write examples

b) An agronomist advices a farmer to grow green gram and paddy. Give reason for this.