CBSE MIXED TEST PAPER-07
CLASS - 9 SCIENCE
(half yearly examination)

General Instructions:-

(i) The question paper comprises of two sections A and B. You are to attempt both the section.

(ii) All questions are compulsory.

(iii) Internal choice has been provided in some questions.

(iv) All questions of section A and all questions of section B are to be attempted separately.

(v) Question 1 to 6 in section A and 17 to 19 in section B are of one mark each.

(vi) Question 7 to 10 in section A and 20 to 24 in section B are of two marks each.

(vii)Questions 11 to 14 in section A and 25 to 26 in section B are of three marks each.

(viii) Question 15 to 16 in section A and question 27 in section B are of four marks each.

Section A

1. Define sublimation.

2. What is meant by a pure substance?

3. Which down the formulae of

  i.   sodium oxide
 ii.   Magnesium hydroxide

4. What is the nature of distance time graph for uniform motion of an object?

5. State the universal law of gravitation.

6. What is the acceleration of free fall?

7. Explain why some of the leaves may get detached from tree if we vigorously shake its branch.

8. Name the technique to separate

  i.   butter from curd
 ii.   camphor from salt.

9. Calculate the molecular masses of

i. C_2H_6

ii. NH_3

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

11. Convert into mole

i. 12 gm of oxygen gas.

ii. 22 gm of carbon dioxide.

12. Convert the following temperature to Celsius scale.

a. 300 k

b. 573 k

c. 470 k

13. A stone is released from the top of a tower of a height 19.6 m. Calculate its final velocity just before touching the ground.

14. Relative density of silver is 10.8. The density of water is 103 kgm^{-3}. What is the density of silver in SI unit?

15.

i. State the first law of motion. Give one example to support it.

ii. A bullet of mass 20 g is horizontally fired with a velocity 150 ms^{-1} from a pistol of mass 2 kg. What is the recoil velocity of pistol?

Or

An automobile vehicle has a mass of 1500 kg. What must be the force between the vehicle and road if the vehicle is to be stopped with negative accelerations of 1.7ms^{-2}?

16. (i)Write three differences between mixtures and compounds.

Or

Write three differences in the characteristics of states of matter.

(ii) Define the following in a solution

(a) solute (b) solvent

Or

How does the water kept in a earthen pot (matka) become cool during summer?

Section B

17. Why is the plasma membrane called a selectively permeable membrane?

18. Where is apical meristem found?

19. State a function of stomata.

20. Write two differences between prokaryotic and eukaryotic cell.

21. Why are lysosomes known as suicide bags?

22. What are the constituents of phloem?

23. How do gymnosperms and angiosperms differs from each other?

24. Write two important characteristics of plants belonging to Pteridophytes.

25. Draw a labeled diagram of neuron.

26. Write one difference between the followings:

  i. Peripheral animals and coelenterate animals.
 ii. Annelids and arthropods.
iii. Amphibians and reptiles.

27. Draw a well labelled diagram of a plant cell or an animal cell.