SAMPLE PAPER 1

CLASS - 9 SCIENCE

Half Yearly Examination

General Instructions:-

1. All questions are compulsory
2. The question paper consists of two sections A and B. You are to attempt both the sections
3. There is no overall choice. However intended choice has been given in some questions. You are to attempt only one question in such question.
4. Question 1 to 6 in section A and 19 to 21 in section B are very short answer questions of 1 mark each
5. Question no 7 to 12 in section A and 22 to 24 are short answer questions of 2 marks each
6. Question no 13 to 16 in section A and 25 to 26 are also short answer question carrying 3 marks each.
7. Question no 17 and 18 in section A and 27 are long answer question carrying 5 marks each.

SECTION A

1. Convert the following into Celsius scale:

a. 300 K
b. 573 K

2. Name the technique to separate butter from curd.

3. What does the odometer of an automobile measure?

4. What is the momentum of an object of mass 'm' and moving with velocity 'v'?

a. $(mv)^2$
b. mv^2
c. $\frac{1}{2} mv^2$
d. mv

5. Why naphthalene balls disappear with time without leaving any solid?

6. Mass of an object is 10 kg. What is its weight on earth?

7. When a carpet is beaten with stick dust comes out. Explain why?

8. Differentiate between speed and velocity.

9. Write the chemical formula of the following:

i. Magnesium chloride
ii. Calcium carbonate
iii. Sodium hydroxide
iv. Ammonium chloride

10. Classify the following into elements, compounds and mixtures:

i. Sodium
ii. Soil
iii. Tin
iv. Calcium carbonate

11. State Newton's first law of motion.

12. Calculate the molecular mass of $CaCo_3$ and NH_3 (Atomic mass of N=14, H=1, Ca=40, C=12, O=16)

13. a) State universal law of gravitation.
b) Why is the weight of an object on moon is 1/6th of the earth?

14. Differentiate between mass and weight.(Any three)

15. State any three points of Dalton atomic theory.

16. Write the differences between compounds and mixture. (Any three)

17.

a. What is Archimedes principle?

b. What is relative density?
c. Relative density of silver is 10.8. The relative density of water is 10^3 kg/ m^3? What is the density of silver in S I units.

OR

a. Which would require a greater force, accelerating a 2 kg mass at 5 m/sec^2 or a 4 kg . mass at 2 m/sec^2?
b. From the velocity time graph, graphically derive the second equation of motion $S = ut + \frac{1}{2} at^2$.

18. How can we separate a mixture of two immiscible liquids? Draw a labeled diagram of the apparatus used.

OR

a. List the differences in the states of matter(Any three)
b. List the factors which affect the rate of evaporation.

SECTION B

19. Which organelle is known as the power house of cell?

20. What is specific function of cardiac muscle?

21. Define health.

22. Draw a well labeled diagram of neuron.

23. What precautions can you take in your school to reduce the incidence of infectious disease?

24. What are the different means by which the disease spread?

25. Write any three functions of stomata.

26. Draw a neat and labeled diagram of plant cell.

27.

a. What are the constituents of phloem?
b. On what basis plants and animals are placed into different categories?
c. What are the difference between Angiosperms and Gymnosperms?

OR

a. What are the differences between Amphibians and Reptiles(any two)
b. Write any three characteristic of animal belonging to class mammalian.