

MODEL QUESTION PAPER -- 1

STANDARD – X

SUBJECT – SCIENCE

MARKS: 75 MARKS

TIME: 3.00 HRS

PART – I

CHOOSE THE BEST ANSWER

12X1=12

1. In which of the following sport turning of effect of force used -----?
a) Swimming b) Cycling c) Tennis d) Hockey
2. Kilowatt hour is the unit of -----?
a) Resistivity b) Conductivity c) Electric power d) Electric energy
3. Sound waves do not travel through -----?
a) Liquid b) Solid c) Gases d) Vacuum
4. The isotope which cures anaemia-----?
a) Na – 24 b) I – 131 c) Fe--59 d) Co – 60
5. ----- group contains the member of noble gas family.
a) 15 b) 16 c) 17 d) 18
6. ----- is an important metal to form amalgam.
a) Ag b) Au c) Hg d) Mg
7. Powdered CaCO_3 reacts more rapidly than flaky CaCO_3 because of -----?
a) High concentration b) Large surface area
c) High pressure d) High temperature
8. Physical expression of a gene is called-----?
a) Genotype b) Homotype c) Phenotype d) Metacentric
9. ----- are the largest of leucocytes.
a) Neutrophil b) Monocyte c) Basophil d) Lymphocyte
10. Nerve cells do not possess -----?
a) Axon b) Neurilemma c) Sarcolemma d) Dendrites
11. The body of leech has ----- segments.
a) 31 b) 32 c) 33 d) 34
12. ----- is not a symptom of CHD.
a) Atherosclerosis b) Diabetes c) Ischemia d) Plaque

PART --- II

ANSWER ANY SEVEN QUESTION

7X2=14

13. MATCH THE FOLLOWING

- | | | |
|---------------|-----|---------------------------------|
| A) Dosimeter | --- | 100R |
| B) Delirium | --- | Nuclear fission |
| C) Leukemia | --- | Exposure of X-ray and Gamma ray |
| D) Safe limit | --- | 600 R |

14. Name the acid that renders aluminium passive. Why?

15. What are the different modes used to calculate the number of moles?

16. True (or) False. If false give the correct statement.

a) The p^H of rain water containing dissolved gases like SO_3 , CO_2 , NO_2 will be less than 7

b) Combustion reaction are reversible reaction.

17. What are the factors affecting photosynthesis?

18. Which gland is called 'Master gland'. why?

19. Define triple fusion?

20. What are allosomes?

21. Why are traffic signals red in colour?

22. Calculate the linear momentum of the body. A body mass is 10kg and velocity is 20 ms^{-1} ?

PART – III

ANSWER ANY SEVEN QUESTION

7X4=28

23. Give the salient feature of 'Modern atomic theory'?

24. (i) Difference between Ideal gas and Real gas?

(ii) Difference between concave and convex lens?

25. (i) Define critical mass? (ii) Write a short note on over loading and short circuiting of domestic circuit?

26. (i) State two conditions necessary for hearing an echo?

(ii) What are the medical applications of echo?

27. What is called homologous series and its characteristics?

28. (i) Write any four function of Thyroid hormone?

(ii) What are the medicinal values of leech?

29. Explain the Watson and crick model of DNA?

30. Define Ethnobotany and write its importance?

31. (i) How are stem cells useful in regenerative process?

(ii) Mention the function of endosperm?

32. (i) A solution is prepared by dissolving 45g of sugar in 180g of water. Find the mass percentage of solute?

(ii) What are the advantages of tidal energy?

PART – IV

ANSWER THE ALL QUESTION

3X7=21

33. State and prove the law of conservation of linear momentum?

(OR)

(a) How is ethanol manufactured from sugarcane?

(b) Explain the froth flotation process?

34. What is nuclear reactor? Explain the essential parts with their functions?

(OR)

- (a) Differentiate Artery and vein?**
 - (b) What is reflex action? Explain the types of Reflex action?**
- 35. (a) Which is called stress hormone. Why?**
- (b) Explain the structure of Human sperm?**

(OR)

- (a) Suggest measures to overcome the problems of an alcoholic?**
- (b) How will you prevent soil erosion?**