

SWAMI VIVEKANANDA MATRIC HR SEC SCHOOL ARUMBAVUR.

STD : X

MARKS: 75

SUB: SCIENCE

TIME: 3.00HRS

MODEL QUARTERLY EXAM –2 (2022- 2023)

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**PART – A**

**CHOOSE THE BEST ANSWER.**

12 X 1 = 12

1. SI unit of moment of force is ----? a) Cm      b) Nm      c) dyne      d) all the above
2. Kilowatt hour is the unit of ----?  
a) conductivity      b) resistivity      c) electrical energy      d) electrical power
3. The number of periods and groups in the periodic table are ---? a) 6,16      b) 7,17      c) 8,18      d) 7,18
4. When pressure is increased at constant temperature the solubility of gases in liquid ----?  
a) No change      b) increases      c) decreases      d) No reaction
4. Which of the following factors affecting photosynthesis?  
a) Pigments      b) Hormones      c) Leaf age      d) All the above
6. The brain of leech lies above the ---? a) Mouth      b) Buccal cavity      c) Pharynx      d) Crop
7. Heart of heart is called ---? a) SA node      b) AV node      c) Purkinje fibres      d) Bundle of His
8. The human brain constitute nearly ---- percentage of fat. a) 45%      b) 50%      c) 55%      d) 60%
9. ----- promotes senescence in leaves by causing loss of chlorophyll.  
a) Abscisic acid      b) Cytokinin      c) Ethylene      d) Auxin
10. Asexual reproduction place through budding in ----?  
a) Amoeba      b) Yeast      c) Plasmodium      d) Bacteria
11. The loss of one or more chromosome in a ploidy is called ---- ?  
a) Tetraploidy      b) Aneuploidy      c) Euploidy      d) Polyploidy
12. Which of the following the pathway for the light to retina---?  
a) Iris      b) Pupil      c) Cornea      d) Eye lens

**PART - B**

**ANSWER ANY 7 QUESTIONS. Q.NO 23 IS COMPULSORY.**

7 x 2 = 14

13. State Newton's second law?      14. State Rayleigh's law of scattering?
15. Define one calorie?      16. Define the unit of current?
17. What is molar volume of gas?      18. What is rust? Give the equation of formation of rust?
19. Write the dental formula of rabbit?      20. Draw and lable the structure of oxysomes?

21. Why is the SA node called the pacemaker of heart? 22. Name the parts of the hind brain?
23. The ratio of masses of two planets is 2:3 and the ratio of their radii is 4:7. Find the ratio of their accelerations due to gravity?

**PART - C**

**ANSWER ANY 7 QUESTIONS. Q.NO 31 IS COMPULSORY.**

7 x 4 = 28

24. Describe rocket propulsion? 25. Differences between convex and concave lenses?
26. In what way hygroscopic substances differ from deliquescent substances?
27. Enumerate the functions of blood? 28. Write the functions of thyroid hormones?
29. Why are family planning methods not adopted by all the people of our country?
30. Explain about Watson and Crick model of DNA?
31. a) Doctors use stethoscope to hear the sound of the heart. Why? b) What is cohesion?
32. List out the parasitic adaptations of leech?
33. Derive the relation between relative molecular mass and vapour density?
34. Expand LED? List the merits of LED bulbs?

**PART - D**

**ANSWER ALL THE QUESTIONS.**

3 x 7 = 21

35. a) State and prove the law of conservation of linear momentum?  
b) Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2F. (OR)
- a) Write notes on (i) saturated solution (ii) unsaturated solution  
b) Name the acid that renders aluminium passive. Why? c) Define atomicity.
36. a) State Joule's law of heating? b) An alloy of nickel and chromium is used as the heating element. Why? c) How does a fuse wire protect electrical appliances? (OR)
- a) Illustrate the structure and functions of brain. b) Where does photosynthesis?
37. a) Explain the male reproductive system of rabbit with a labeled diagram?  
b) Transpiration is necessary evil in plants. Explain. (OR)
- a) Where are estrogens produced? What is the role of estrogens in the human body?  
b) How is the structure of DNA organised? What is the biological significance of DNA?

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