



V10S

Virudhunagar District
First Mid Term Test - 2023

Standard 10

Marks: 50

Time: 1.30 Hours

SCIENCE

PART - I

Answer all the questions

8×1=8

Choose the most appropriate answer:

- 1) To Project the rockets which of the following principle(s) is/are required?
 a) Newton's third law of motion
 b) Newton's law of gravitation
 c) Law of conservation of linear momentum
 d) Both a and c
- 2) Magnification of convex lens is
 a) Positive
 b) negative
 c) either positive or negative
 d) zero
- 3) The gram molecular mass of water is
 a) 2g b) 16g c) 8g d) 18g
- 4) Chemical formula of rust is
 a) $\text{FeO} \cdot x\text{H}_2\text{O}$ b) $\text{FeO}_4 \cdot x\text{H}_2\text{O}$ c) $\text{Fe}_2\text{O}_3 \cdot x\text{H}_2\text{O}$ d) FeO
- 5) Casparian strips are present in the of the root.
 a) cortex b) pith c) pericycle d) endodermis
- 6) Dental formula for rabbit is
 a) $\frac{2033}{1023}$ b) $\frac{2033}{2023}$ c) $\frac{1033}{1023}$ d) $\frac{2023}{1023}$
- 7) 'Heart of Heart' is called
 a) SA node b) AV node c) Purkinje fibres d) Bundle of His
- 8) The heart of fish possess chambers.
 a) 3 b) 2 c) 4 d) 5

PART - II

Answer any six questions: (Q16 is compulsory)

6×2=12

- 9) Differentiate mass and weight.
- 10) State Rayleigh's law of scattering.
- 11) Define - Atomicity
- 12) A is a silvery white metal. A combines with O_2 to form B at 800°C , the alloy of A is used in making The aircraft. Find A and B.
- 13) What is photosynthesis and where in a cell does it occur?

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- 14) Match it
- | | | |
|----------------|---|---------------------|
| AB blood group | - | Allergic condition |
| O blood group | - | Inflammation |
| Eosinophil | - | Absence of antigen |
| Neutrophils | - | Absence of antibody |
- 15) What is the importance of valves in the heart?
- 16) Calculate the number of moles in 27g of Al.

PART - III**Answer any four questions: (Q23 is compulsory)****4×4=16**

- 17) What are the types of inertia? Give an example of each type.
- 18) List any five properties of light
- 19) Derive the relationship between Relative molecular mass and Vapour density
- 20) a) What is an amalgam? Given an example
b) Mention any two uses of copper.
- 21) a) Write short notes on mesophyll
b) Draw and label the structure of oxysomes.
- 22) Explain the male reproductive system of rabbit with a labelled diagram
- 23) a) Calculate the velocity of a moving body of mass 5kg whose linear momentum is 2.5kgms^{-1}
b) A man of mass 100kg has a weight of at the surface of the Earth.

PART - IV**Answer the questions. Draw diagrams Wherever necessary****2×7=14**

- 24) a) i) Explain the construction and working of a 'Compound Microscope'.
ii) Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2F.

(OR)

- b) i) Explain different methods of preventing corrosion.
ii) Give any three salient features of "Modern atomic theory"
- 25) a) i) Differentiate Monocot root and Dicot root.
ii) What is respiratory quotient?

(OR)

- b) i) What is transpiration? Give the importance of transpiration
ii) Enumerate any three functions of blood.

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