# T   FIRST MID TERM TEST - 2024
## Standard - X

Time : 1.30 hrs              SCIENCE              Marks: 50

### Part - I

**I. Answer all the questions:-**                                    7×1=7

1) In which of the following sport the turning effect of force used
   a) Swimming          b) tennis          c) cycling          d) hockey

2) Power of a lens is -4D then its focal length is
   a) 4m          b) -40m          c) -0.25m          d) -2.5m

3) In the nucleus of $_{20}Ca^{40}$, there are
   a) 20 protons and 40 neutrons          b) 20 protons and 20 neutrons
   c) 20 protons and 40 electrons          d) 40 protons and 20 electrons

4) Which of the following alloys used to make parts of an aircraft
   a) Duralumin                    b) Magnalium
   c) Nickel steel                    d) Stainless Steel

5) Casparian strips are present in the _____ of the root
   a) Cortex          b) Pith          c) Pericycle   d) endodermis

6) The brain of leech lies above the
   a) Mouth          b) Buccal cavity          c) Phraynx          d) Crop

7) An example of Myogenic heart beat
   a) Mollusca          b) Annelids          c) arthropods          d) Porifera

### Part - II

**II. Answer any 5 of the following questions.**
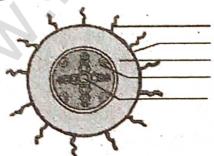**(Question No. 14 is compulsory)**                                    5×2=10

8) Define inertia. Give its classification.

9) Define Atomicity. Give an example.

10) What is rust? Give the equation for formation of rust.

11) Draw the following diagram and labelled the parts.



12) Minerals in the plants are not lost when the Leaf falls. Why?

13) Differentiate between voluntary and involuntary actions.

14) A beam of light passing through a diverging lens of focal length 0.3m appear to be focused at a distance 0.2m behind the lens. Find the position of the object.

## Part - III

**III. Answer any 3 of the following questions.**
**(Question No.19 is compulsory)**       3×4=12

15) a) What is power of accommodation of eye? (2)
    b) What are the causes of 'Myopia'?

16) a) Name the three basic tissues system in flowering plants. (2)
    b) Why should the light dependent reaction occur before the light independent reaction? (2)

17) How does locomotion take place in leech?

18) Enumerate the functions of blood.

19) Calculate the % of each element in Calcium Carbonate. (Atomic mass C-12, O-16, Ca-40)

## Part - IV

**IV. Answer all the questions:-**       3×7=21

20) a) i) State Newton's second law. (2)
      ii) Deduce the equation of a force using Newton's Second Law of motion. (5)       **[or]**
    b) Differentiate the eye defects: Myopia and Hypermetropia.

21) a) i) Give the salient features of "Modern Atomic theory"? (5)
      ii) Calculate the number of moles in 27g of Aluminium. (2) **[or]**
    b) i) Define Corrosion. (2)
      ii) What are the types of Corrosion. (2)
      iii) What are the methods of preventing corrosion. (3)

22) a) i) How does the light dependent reaction differ from the light independent reaction? What are the end product and reactants in each. (5)
      ii) Give the importance of transpiration. (2)       **[or]**
    b) i) Classify neurons based on its structure. (4)
      ii) "A" is a cylindrical structure that begins from the lower end of medulla and extend downwards. It is enclosed in bonycage "B" and covered by membranes "C". As many "D" pairs of nerves arise from the structure "A". (3)
      a) What is A?
      b) Name bony cage 'B' and membranes 'C'?
      c) How much is 'D'?

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