

FK

FIRST MID TERM TEST - AUGUST - 2023 TIME : 1.30 Hrs

10 - Std

Science

Marks : 50

**Answer all the questions. Choose the best option.****8 × 1 = 8**

- Power of a lens is -4D, then its focal length is  
a) 4 m      b) - 40 m      c) -0.25 m      d) -2.5 m
- The volume occupied by 4.4g of CO<sub>2</sub> at 3 S.T.P.  
a) 22.4 litre      b) 2.24 litre      c) 0.24 litre      d) 0.1 litre
- Atomicity of phosphorus is  
a. 2    b. 4      c. 3    d. 1
- Kreb's cycle takes place in  
c. Stomata      d. Inner mitochondrial membrane
- Which lens is used to correct astigmatism?  
a. convex lens      b. Bifocal lens      c. Concave lens      d. Cylindrical lens
- The body of leech has  
a. 23 segments      b. 33 segments      c. 38 segments      d. 30 segments
- The gap between incisor and premolar teeth of rabbit is called—  
a. diastema      b. Hirudin      c. Heparin      d. Heterodont
- Vomiting centre is located in  
a) Medulla oblongata      b) Stomach      c) Cerebrum      d) Hypothalamus

**Answer any six questions. Question number 16 is compulsory.****6 × 2 = 12**

- Why does the sky appear in blue colour.
- Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2F.
- Identify whether the statements are true or false. If the statement is false correct it.  
a. Weight of a body is greater at the equator and less at the polar region.  
b. The convex lens always gives small virtual image.
- Define relative atomic mass.
- Fill in the blanks**  
a. ——— is the longest period in the periodic table  
b. Chief ore of aluminium is ———.
- Match the following.  
a) Nissl's granules      -      Forebrain  
b) Hypothalamus      -      Peripheral Nervous system  
c) Cerebellum      -      Cytone  
d) Schwann cell      -      Hind brain

15. Write the dental formula of rabbit

16. Calculate the molecular mass of CO<sub>2</sub>**Answer any four questions. Question number 22 is compulsory.****4 × 4 = 16**

- Differentiate the eye defects. Myopia and Hyper metropia.
- What are the applications of Avogadro's law?
- a. What is rust? Give the equation for the formation of rust  
b. State two conditions necessary for rusting of iron
- i) Name the three basic tissue systems in flowering plants.  
ii) **Match the following.**  
1. Amphicribal      Conduction of water  
2. Amphivasal      Translocation of food  
3. Xylem      Fern  
4. Phloem      Dracaena
- What is transpiration? Give the importance of transpiration.
- A beam of light passing through a diverging lens of focal length 0.3 m appears to be focused at a distance 0.2 m behind the lens. Find the position of the object \*

**Answer all the questions.****2 × 7 = 14**

- i) a. State Rayleigh's law of scattering of light  
b. State the universal law of gravitation and derive its mathematical expression (OR)  
ii) a. Define atomicity. b. Give the salient features of modern atomic theory
- i) **Differentiate the following.**  
a) Dicot root and monocot root. b) Aerobic respiration and anaerobic respiration. (OR)  
ii) Explain the male reproductive system of rabbit with a labelled diagram.

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