

Class : 10Register
Number**FIRST MID TERM TEST - 2024**

Time Allowed : 1.30 Hours]

SCIENCE

|Max. Marks : 50

YouTube/ Akwa Academy

PART - I

- I. Choose the best answer. 10x1= 10
- The mass of a body is measured on planet Earth as M Kg. When it is taken to a planet of radius half that of the Earth then its value will be ----- Kg.
a) 4 M b) 2 M c) M/4 d) M
 - Where should an object be placed so that a virtual and erect image of large size is obtained by a convex lens.
a) f b) 2f c) Infinity d) between O and f
 - The Atomic mass of oxygen is
a) 16 g b) 18 g c) 32 g d) 17 g
 - 1 mole of any substance contains ----- molecules.
a) 6.023×10^{23} b) 6.023×10^{-23} c) 3.0115×10^{23} d) 12.046×10^{23}
 - Which of the following have inert gases 2 electrons in the outermost shell.
a) He b) Ne
c) Ar d) Kr
 - Xylem and Phloem are arranged in an alternate radii constitute a vascular bundle called ----
a) Radial b) Amphivasal c) Conjoint d) None of these
 - Mammals are ----- animals.
a) Cold blooded b) Warm blooded
c) Poikilothermic d) All the above
 - A patient with blood group O was injured in an accident and has blood loss. Which group of blood should be used by doctor for Transfusion.
a) O Group b) AB Group c) A or B Group d) All blood group
 - Which one of the following shows correct Composition of Blood.
a) Plasma - Blood + Lymphocyte b) Serum - Blood + Fibrinogen
c) Lymph - Plasma + RBC + WBC d) Blood - Plasma + RBC + WBC + Platelets
 - Normal blood pressure is -----
a) 80 mm / 120 mm Hg b) 120 mm / 80 mm Hg
c) 72 - 75 mm Hg d) None of the above

PART - II

Answer any five questions:

5x2=10

- State the principle of Moments.
- Fill in the blanks.
i) If the energy of incident beam and the scattered beam are same, Then the scattering of light is called as ----- Scattering.
ii) Amount of light entering into the eye is controlled by -----
- What is Molar Volume of a Gas?
- What is Rust? Give the equation for Formation of Rust.
- Draw and Label the structure of Oxysomes.

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16. Identify whether the statements are True or False. Correct the False Statement.

- i) An anticoagulant present in Saliva of Leech is called Heparin.
- ii) Diastema is a gap between Premolar and Molar Teeth in Rabbit.

17. Match the following.

- i) Symplastic Pathway - Leaf
- ii) Transpiration - Plasmodesmata
- iii) Osmosis - Pressure in Xylem
- iv) Root Pressure - Pressure Gradient

18. Define reflex arc.

PART - III

Answer any four questions :

4x4=16

19. a) Differentiate Mass and Weight.
- b) A mechanic unscrew a nut by applying a force of 140 N with a spanner of Length 40 Cm. What should be the length of the spanner if a force of 40 N is applied to unscrew the same nut?
20. a) State Snell's Law
- b) State any two properties of Light.
21. Differentiate the eye defects : Myopia and Hypermetropia.
22. Give the salient features of "Modern Atomic Theory".
23. a) What is Respiratory Quotient?
- b) Name the three basix tissues system in Flowering Plants.
24. a) Write the Dental formula of Rabbit.
- b) What is the importance of valves in the Heart?
25. a) How are Arteries and Veins structurally different from one another?
- b) Classify Neurons based on its Structure.

PART - IV

Answer all the questions :

2x7=14

26. a) i) Define Inertia. Give its Classification.
 - ii) Differentiate Convex Lens and Concave Lens.
 - iii) Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2F.
 - iv) A man of mass 100 Kg has weight of ----- at the surface of the Earth.
- (OR)
- b) i) Define : Relative Atomic Mass.
 - ii) Calculate the number of moles in 27g of Al.
 - iii) Define Electron Affinity.
 - iv) The Periodic table contains ----- periods and ----- groups.
27. a) i) How does the light dependent reaction differ from the light independent reaction? What are the end product and reactants in each? Where does each reaction occur within the Chloroplast?
 - ii) What is Cohesion?
- (OR)
- b) i) List out the Parasitic adaptations of Leech.
 - ii) Differentiate : Medullated and Non - Medullated Nerve Fibre.
 - iii) What are the structure involved in the Protection of Brain?
 - iv) The two antagonistic component of Autonomic nervous system are ----- and -----

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