

PREPARATORY REVISION TEST - 2021

10 - Std

SCIENCE

FRS

Time : 1.30 Hrs

Marks : 50

SALEM

I Choose the most appropriate answer.

12 X 1 = 12

- Inertia of a body depends on
a) weight of the object
b) acceleration due to gravity of the planet
c) mass of the object
d) both a & b
- One kilogram force equal to
a) 9.8 dyne
b) $9.8 \times 10^4 \text{N}$
c) $98 \times 10^4 \text{ dyne}$
d) 980 dyne
- Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens
a) f
b) 2f
c) infinity
d) between f and 2f
- In a myopic eye, the image of the object is formed
a) behind the retina
b) on the retina
c) in front of the retina
d) on the blind spot
- Which of the following is a triatomic molecule
a) Glucose
b) Helium
c) Carbon di oxide
d) Hydrogen
- The gram molecular mass of Oxygen molecule is
a) 16g
b) 18g
c) 32g
d) 17g
- Atomicity of Phosphorus is
a) 2
b) 4
c) 6
d) 8
- Noble gases are _____
a) Mono atomic
b) Diatomic
c) Triatomic
d) Poly atomic
- Casparian strips are present in the _____ of the root
a) Cortex
b) Pith
c) Pericycle
d) Endodermins
- Which is formed during anaerobic respiration
a) Carbohydrate
b) Ethyl alcohol
c) Acetyl Co A
d) Pyruvate
- Kreb's cycle takes place in
a) Chloroplast
b) Mitochondrial matrix
c) Inner mitochondrial memberane
d) Stomata
- Oxygen is produced at what point during photosynthesis?
a) When ATP is converted to ADP
b) When CO_2 is fixed
c) When H_2O is splitted
d) All of these

II Answer any four of the following questions. (Q.no. 18 is compulsory).

4 X 2 = 8

13. State Snell's law.
14. Define atomicity.
15. Calculate the gram molecular mass of CO_2 .
16. Write a short note on mesophyll.
17. What is respiratory quotient?
18. Calculate the velocity of a moving body of mass 10Kg whose linear momentum is 2Kgms^{-1} .

III Answer any four of the following questions. (Q.No. 24 is compulsory).

4 X 4 = 16

19. Define Inertia. Give its classification.
20. i) What is Avogadro Hypothesis.
ii) Write any two applications of Avogadro's law.
21. How many grams are there in the following?
i) 3 moles of Chlorine molecule, Cl_2
ii) 4 moles of Phosphorous molecule, P_4
22. i) What is photosynthesis?
ii) Where in a cell it occur?
23. i) Draw and Label the Parts of Chloroplast.
ii) Write the reaction for photosynthesis.
24. An object is placed at a distance 20cm from a convex lens of focal length 10cm. Find the image distance and nature of the image.

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IV Answer all the questions.

2 X 7 = 14

25. a) i) State Newton's second law.
ii) Deduced the equation of a force using Newton's second law of motion.
(OR)
b) i) List any five properties of light. ii) What are the causes of "Myopia"?
26. a) i) Give the salient features of 'modern atomic theory'.
ii) Calculate the mass of 1.51×10^{23} molecules of water.
b) i) How does the light dependent reaction differ from the light independent reaction.
ii) What are the end product and reactant in each?
iii) Where does each reaction occur within the chloroplast?