

RM-1

10 - Std

Time : 3.00 hrs.

FIRST REVISION TEST - 2025

SCIENCE

10815

Marks : 75

12 X 1 = 12

I Answer all the question.

- To project the rockets which of the following principle(s) is /are required?
 - Newton's third law of motion
 - Newton's law of gravitation
 - Law of conservation of linear momentum
 - both a and c
- The value of Boltzmann constant
 - $1.38 \times 10^{-23} \text{ J K}^{-1}$
 - $1.38 \text{ J mol}^{-1} \text{ K}^{-1}$
 - $8.31 \text{ J mol}^{-1} \text{ K}^{-1}$
 - $1.38 \times 10^{23} \text{ J K}^{-1}$
- SI unit of electrical resistivity
 - mho
 - ohm / meter
 - ohm
 - ohm meter
- Which of the following is a diatomic molecule?
 - Glucose
 - Helium
 - Carbondioxide
 - Hydrogen
- Across the period, ionic radii
 - no change
 - increase
 - decrease
 - decrease then increase
- The general molecular formula of alkynes is
 - $\text{C}_n\text{H}_{2n-2}$
 - C_nH_{2n}
 - $\text{C}_n\text{H}_{2n+2}$
 - CH_2
- is ATP factory of the cell.
 - Cytoplasm
 - Mitochondria
 - Nucleus
 - Chromosomes
- Which one of the following have uncompleted four chambered heart
 - Fishes
 - Amphibians
 - Reptiles
 - Mammals
- Bipolar neurons are found in
 - retina of eye
 - cerebral cortex
 - embryo
 - respiratory epithelium
- Syngamy results in the formation of
 - zoospores
 - conidia
 - zygote
 - chlamydo sporangia
- The term mutation was introduced by
 - Hugo De Vries
 - W.F. Libby
 - Gregor Johnn Mendel
 - Langdon Down
- is a biosphere reserve in Tamil Nadu.
 - Nilgiris
 - Coimbatore
 - Madurai
 - Chennai

II Answer any seven questions. Q.No. 22 is compulsory.

7 X 2 = 14

- Define : Critical Mass.
- State any two uses of copper.
- Match the following.

Common Name	Molecular formula
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- | | |
|--------------------|---|
| i) Blue vitriol | - $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ |
| ii) Gypsum | - $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ |
| iii) Green vitriol | - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ |
| iv) Epsom salt | - $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ |

- What is respiratory quotient?
- Draw and label the structure of following picture.
- How can you determine the age of the fossils?



19. Describe - Biofortification.

20. Fill in the blanks:

i) Communicable : AIDS

ii) Hypertension : Hyper cholesterolomia

Non Communicable : Glycosuria :

21. What is scratch?

22. Power of a lens is $= -4D$, then its focal length (f) is?

III Answer any seven questions. Question Number 32 is compulsory. $7 \times 4 = 28$

23. a) i) Differentiate mass and weight.

ii) True or false. If false correct it.

Increase in the converging power of eye lens cause 'hypermetropia'.

b) Amount of light entering into the eye is controlled by cornea.

24. i) Define SI unit of electric current.

ii) Write any two possibilities to occur Doppler effect.

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

ii) Give the IUPAC name for following compounds i) CH_3CHO ii) $CH_3CH_2CH_3$.

26. i) Expand the following abbreviations. a) ADP b) NAD.

ii) Give the importance of transpiration. (any two)

27. Filling the blanks. i) a) spinal nerves are present in rabbit.

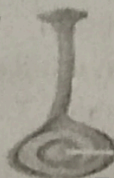
b) The stomach of Leech present in th segment.

ii) Name the parts of the hindbrain.

28. i) a) Increase in blood sugar level called as

b) Increased thirst called as

ii) Draw and label the part of Gynoecium.



29. Explain the structure of Chromosome.

30. i) State the application of DNA finger printing techniques.

ii) a) 'Emphysema' the disease affected which part of the organ?

b) Cancer causing agent are called

31. How does rain water harvesting structures recharge ground water?

32. i) Calculate the number of moles of a sample that contains 12.046×10^{22} atoms of Iron. ii) Calculate the volume of ethanol in 200ml solution of 20% V/V aqueous solution of ethanol.

IV Answer all questions.

$3 \times 7 = 21$

33. i) What is unit of momentum? ii) What is co-efficient of apparent expansion?

iii) List any four properties of light. (OR)

i) The resistivity value of Nichrome

ii) Explain why, the ceilings of concert halls are curved.

iii) Compare the properties of alpha, beta and gamma radiations.

34. What is a chemical equilibrium? What are its characteristics? (OR)
How is ethanol manufactured from sugarcane?

35. i) Leuco plast are plastids.

ii) What is cohesion?

iii) What are the advantage and disadvantages of cross pollinations. (OR)

i) The theory of natural selection for evolution was proposed by

ii) Define genetic engineering.

iii) What are the various routes by which transmission of human immuno deficiency virus take place?