

RTK

10 - Std

Time : 3.00 Hrs.

First Revision Test - 2025**SCIENCE**

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Marks : 75

Part - I**Answer all the questions.****12 X 1 = 12**

- SI unit of resistance is
a) mho b) joule c) ohm d) ohmmeter
- One kilogram force equals to
a) 9.8 dyne b) 9.8×10^4 N c) 980 dyne d) 9.8×10^4 dyne
- Atoms of different elements having same number of are called isotones.
a) neutrons b) atomic number c) atomic mass d) protons
- In the nuclear reaction ${}_6^{X12} \xrightarrow{\alpha\text{-decay}} {}_Z^{YA}$ the value of A & Z
a) 8, 6 b) 8; 4 c) 4, 8 d) 12, 6
- Among the given species A^- , A^+ and A, the smallest one in size is
a) A^- b) A^+ c) A d) 0
- When pressure is increased at constant temperature, the solubility of gases in liquid
a) no change b) increases c) decreases d) no reaction
- The endarch condition is the characteristic feature of
a) root b) stem c) leaves d) flower
- Nerve cells do not possess
a) neurilemma b) sarcolemma c) axon d) dendrites
- LH is secreted by
a) Adrenal gland b) Thyroid gland c) Anterior pituitary d) Hypothalamus
- A sexual reproduction takes place through budding in
a) amoeba b) yeast c) plasmodium d) bacteria
- The units form the backbone of the DNA.
a) 5 carbon sugar b) phosphate c) Nitrogenous bases d) sugar phosphate
- All files are stored in the
a) folder b) box c) paint d) scanner

Part - II**Answer any seven questions. (Q.No. 22 is compulsory)****7 X 2 = 14**

- Define critical mass.
- Why does the sky appear in blue colour?
- What is aqueous and non-aqueous solution? Give an example.
- If the pH value of solution is zero then what will be the nature of the solution? Give reason.
- Draw the label the structure of oxysomes.
- How does leech suck blood from the host?

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19. Who discovered Rh factor? Why was it named so?
20. What is pollination?
21. What do you understand by the term phenotype and genotype?
22. A torch bulb is rated at 3V and 600mA. Calculate its resistance.

Part - III

Answer any seven questions. (Q.No. 32 is compulsory)

7 X 4 = 28

23. Match it :

- | | | |
|-------------------------|---|-----------|
| a) Electric current | - | Volt |
| b) Potential difference | - | Ohm meter |
| c) Resistivity | - | Watt |
| d) Electric power | - | Ampere |

24. **i) Fill up :**
 - a) Opening a door : Moment of force, opening a water tap :
 - b) Pushing a bus by a group of people : Like parallel forces, Tug of war :
 - ii) The power of a lens is -2D. Find the focal length of a lens.
25. Difference between the sound and light waves.
26. a) Define - Relative Atomic Mass. b) Give any two examples for hetero diatomic molecules.
27. How do detergents cause water pollution? Suggest remedial measures to prevent this pollution.
28. i) Why are the rings of cartilages found in trachea of rabbit?
ii) Define reflex arc.
29. Draw the external structure of human heart and label the parts.
30. Define Ethnobotany and write its importance.
31. Explain about Gene therapy.
32. a) Give the function of control rods in a nuclear reactor.
b) Calculate the pH of 1.0×10^{-4} molar solution of HNO_3 .

Part - IV

Answer all the questions. Draw diagrams wherever necessary. 3 X 7 = 21

33. a) i) Write the uses of Telescope. (2) **(OR)**
ii) State Newton's law of motion. (5)
b) Compare the properties of Alpha, beta, and gamma radiations.
34. a) i) Write any two applications of 'Avogadro's law'. (2)
ii) Give the salient features of 'modern atomic theory'. (5) **(OR)**
b) What is called homologous series? Give its characteristics.
35. a) i) What is respiratory quotient? (2)
ii) What is eotension? (2)
iii) What are the effects of hybrid vigor in animals? (3) **(OR)**
b) i) Enumerate the importance of forest. (4)
ii) What are the various routes by which transmission of human immuno deficiency virus takes place? (3)

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