

T COMMON FIRST REVISION TEST - 2025

Standard - X

Time : 3.00 hrs

SCIENCE

part - I

Marks: 75

Answer all the questions:-

12×1=12

- 1) The unit of 'g' is ms^{-2} . It can be also expressed as
 a) Cms^{-1} b) NKg^{-1} c) Nm^2Kg^{-1} d) Cm^2s^{-2}
- 2) Temperature is the average _____ of the molecules of a substance.
 a) difference in K.E and P.E b) Sum of P.E and K.E
 c) difference in T.E and P.E d) difference in K.E and T.E
- 3) In 'n' resistors of equal resistance are connected in series and then in parallel then the ratio of their effective resistance will be _____
 a) $1:n^2$ b) $n^2:1$ c) $1:n$ d) $n:1$
- 4) In the nucleus of ${}_{20}Ca^{40}$ there are
 a) 20 protons and 40 neutrons b) 20 protons and 20 neutrons
 c) 20 protons and 40 electrons d) 40 protons and 20 electrons
- 5) Which of the following is the Halide ore?
 a) Fe_2O_3 b) FeO_3 c) NaCl d) ZnS
- 6) A 25% alcohol solution means
 a) 25ml alcohol in 100ml of water b) 25ml alcohol in 25ml of water
 c) 25ml alcohol in 75ml of water d) 75ml alcohol in 25ml of water
- 7) Krebs's cycle takes place in
 a) Chloroplast b) mitochondrial matrix
 c) Stomata d) inner mitochondrial membrane
- 8) Decreased Number of WBC is called us. _____
 a) Anemia b) Leucocytosis c) Luekopenia d) Thrombocytopenia
- 9) Match the following
 i) Nissil's granules - Forebrain
 ii) Hypothalamus - Peripheral Nervous system
 iii) Cerebellum - Cyton
 iv) Schwann cell - Hindbrain
 a) iii, i, iv, ii b) ii, i, iv, iii c) iv, ii, i, iii d) iii, iv, i, ii
- 10) Avena coleoptile test was conducted by
 a) Darwin b) N-Smit c) Paal d) F.W. Went
- 11) What is true of gametes?
 a) They are diploid b) They give rise to gonads
 c) They produce hormones d) They are formed from gonads.
- 12) 9:3:3:1 ratio is due to
 a) Segregation b) Crossing over c) Independent assortment d) Recessiveness

Part - II

7×2=14

Answer any seven questions of the following. Question No. 22 is compulsory:-

- 13) Define moment of a couple.
- 14) State Ohm's law.
- 15) Write the different types of isotopes of oxygen and its percentage abundance.
- 16) Define Amalgam and give an example.
- 17) Define Hydrated salt.
- 18) a) How does leech respire?
 b) What does CNS stand for?
- 19) Why is the Sinoatrial node called the pacemaker of heart?

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- 20) Draw the following diagram and mention the parts.



- 21) What do you understand by the term Phenotype and genotype?
 22) A person with myopia can see objects placed at a distance of 4m. If he wants to see objects at a distance of 20m, What should be the focal length of the concave lens he must wear?

7×4=28

Part - III

Answer any seven questions of the following. Question No. 32 is compulsory:-

- 23) State Newton's laws of motion?
 24) a) State Boyle's law. (2)
 b) Distinguish between ideal gas and real gas. (2)
 25) a) State Joule's law of heating? (2)
 b) An alloy of nickel and chromium is used as the heating element. Why? (2)
 26) a) What is rust? Give the equation for formation of rust? (2)
 b) State two conditions necessary for rusting of iron. (2)
 27) Differentiate the Monocot root and Dicot root?
 28) List out the parasitic adaptations in leech.
 29) Out body contains a large number of cells "L" which are the longest cells in the body. "L" has long and short branch called as "M" and "N" respectively. There is a gap 'O' between two 'L' cells through which nerve impulse transfer by release of chemical substance 'P'
 i) Name the cells 'L'
 ii) What are M and N?
 iii) What is the gap 'O'?
 iv) Name the chemical substance 'P'.
 30) a) What is bolting? How can it be induced artificially? (2)
 b) Write the difference between endocrine and exocrine gland. (2)
 31) A pure tall plant (TT) is crossed with pure dwarf plant (tt) what would be the F_1 and F_2 generations? Explain.
 32) Calculate the number of water molecule present in one drop of water which weighs 0.18g.

Part - IV

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

- 33) a) i) Differentiate the eye defects. Myopia and Hypermetropia? (5)
 ii) What is power of accommodation of eye? [or]
 b) i) What is meant by electric current? (2)
 ii) Name and define its unit. (2)
 iii) Which instrument is used to measure the electric current? How should it be connected in a circuit? (3)
 34) a) i) Write the applications of Avogadro's Law. (4)
 ii) a) Identify the bond between H and F in HF molecule.
 b) What property forms the basis of identification.
 c) How does the property vary in periods and in groups? (3) [or]
 b) i) In what way hygroscopic substances differ from deliquescent substances. (4)
 ii) What is aqueous and non-aqueous solution? Give an example. (3)
 35) a) Why are leucocytes classified as granulocytes and agranulocytes? Name each cell and mention its functions. [or]
 b) i) Write the events involved in the sexual reproduction of a flowering plant.
 a) Discuss the first event and write the types?
 b) Mention the advantages and the disadvantages of that event. (5)
 ii) Why is vegetative propagation practiced for growing some type of plants? (2)
