

COMMON FIRST REVISION TEST - 2023

T

Standard X

Reg.No.

SCIENCE

Time : 3.00 hrs

Part - I

Marks : 75
12 x 1 = 12

- I. Choose the correct answer:
- The value of Avogadro number
 a) ~~6.023 x 10²³/mol~~ b) 6.023 x 10/mol
 c) 6.023 x 10³²/mol d) 6.032 x 10²³/mol
 - Proton - Proton chain reaction is an example of
 a) nuclear fusion b) Nuclear Fission c) Alpha decay d) β decay
 - Kilowatt hour is the unit of
 a) resistivity b) conductivity c) electrical energy d) electrical power
 - _____ group contain the member of Chalcogen family.
 a) 17 b) 18 c) 16 d) 15
 - The normal pH of human blood is
 a) 9.1 b) 7.4 c) 5.4 d) 4.5
 - It is the common step of both aerobic and anaerobic respiration.
 a) Krebs cycle b) glycolysis c) electron transport chain d) none of these
 - During transpiration there is loss of
 a) CO₂ b) H₂O c) O₂ d) N₂
 - Which nervous band connects the two cerebral hemispheres of brain?
 a) thalamus b) hypothalamus c) pons d) corpus callosum
 - Estrogen is secreted by
 a) anterior pituitary b) primary follicle c) Graffian follicle d) Corpus luteum
 - Okasaki fragments are joined together
 a) DNA ligase b) DNA polymerase c) RNA d) RNA polymerase
 - Cancer of the epithelial cells is called
 a) Leukomia b) Sarcoma c) Carcinoma d) Lipoma
 - Which organism is considered to be the fossil bird?
 a) Archaeopteryx b) Eagle c) Bat d) None of these

Part - II

II. Answer any 7 questions. (Q.No.22 is compulsory)

7 x 2 = 14

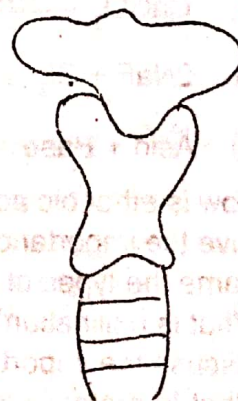
- Define One calorie.
- Match the following :

a) CO - 60	-	Age of fossil <u>4</u>
b) I - 131	-	Function of heart <u>3</u>
c) Na - 24	-	Leukemia <u>1</u> - skin cancer
d) C - 14	-	Thyroid <u>2</u>
- State two conditions necessary for rusting of iron. → water, oxygen
- If the pH of the solution is 4.5, what is its pOH?
- Differentiate between vein and artery.

Q.no: $pH + pOH = 14$
 $pOH = 14 - pH$
 $pOH = 14 - 4.5$
 $pOH = 9.5$

18. Draw the given diagram and mark any two parts.

Thyroid gland



19. Name the types of stem cells.
20. Write two diagnosis methods of HIV. *1, Eliza test*
21. What is SPRITE? *2, western plott*
22. A charge of 12 coulomb flows through a bulb in 5 second. What is the current through the bulb?

$$I = Q/t$$

Part - III $12/5 = 2.4 A //$

III. Answer any 7 questions. (Q.No.32 is compulsory)

7 x 4 = 28

23. State Newton's Law of Motion.
24. a) Define power of a lens.
b) What are the causes of Hypermetropia?
25. a) Write any two applications of Doppler Effect.
b) State two conditions of necessary for hearing an echo.
26. How is ethanol manufactured from sugarcane?
27. a) How does leech suck blood from the host?
b) Why are the rings of cartilages found in Arachea of rabbit?
28. Write the functions of chloroplast and mitochondria.
29. Classify neurones based on its structure.
30. a) What does DNA stand for? *Deoxy Nucleic Acid*
b) What is the biological significance of DNA? —
31. Define Ethnobotany and write its importance.
32. 1.5 g solute is dissolved in 15 g of water to form a saturated solution at 298 K. Find out the solubility of the solute at the temperature.

Part - IV

IV. Answer all the questions.

33. a) Differentiate Mass and Weight.
b) List any three properties of light.
c) Write any two units of temperature. (OR)
a) List any merits of LED bulb.
b) Why does the sky appear in blue colour?
c) Define any two units of Radioactivity.
34. a) Give any two examples for triatomic molecule. $\rightarrow H_2O/CO_2/NO_2/SO_2$
b) List the applications of Avogadro's law.
c) What is Hydrocarbon? (OR)
a) What is meant by Binary solution?
b) Complete the following :
- i) $CaCO_3 \xrightarrow{Heat} ? CaO + CO_2 \uparrow$
- ii) $2NaF + Cl_2 \rightarrow ? 2NaCl + F_2$
- iii) $Acid + Base \rightarrow ? Salt + H_2O.$
- c) How is ethanoic acid prepared from Alcohol?
35. a) Give the importance of transpiration.
b) Name the types of plant hormones.
c) What is pollination? Classify the types of pollination. (OR)
a) Discuss the importance of biotechnology in field of medicine.
b) What is metastasis?
c) What are the consequences of deforestation?
