

FTJ

FIRST REVISION TEST - 2023

SCIENCE

10 - Std

Time : 3.00 Hrs

1	2	3	4	5	6	7	8	9	10
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Marks : 75

PART - I

Note : i) Answer all the questions. ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

12 X 1 = 12

- The unit of electrical energy is
a) Watt b) Kilowatt hour c) Ampere d) Ohm
- If a sound wave travels with a frequency of $1.25 \times 10^3 \text{ Hz}$ at 344 m s^{-1} , the wave length will be
a) 27.52m b) 275.2m c) 0.02752m d) 0.2752m
- Proton - proton chain reaction is an example of
a) Nuclear fission b) α - decay c) nuclear fusion d) β - decay
- 25% alcohol solution means
a) 25 alcohol in 100 ml of water b) 25 ml alcohol in 25ml of water
c) 25ml alcohol in 75ml water d) 75ml alcohol in 25ml of water
- Photolysis is a decomposition reaction caused by
a) heat b) electricity c) light d) mechanical energy
- The body of leach has
a) 23 segments b) 33 segments c) 38 segments d) 30 segments
- Vomitting centre is located in
a) Medulla oblongata
b) stomach c) Cerebrum d) Hypothalamus
- Hormone which is called as 'Time messages'
a) prolactin b) melatonin c) Oxytocin d) Thyroxin
- Estrogen is secreted by
a) Anterior pituitary b) Primary follicle c) Graffian follicle d) corpus luteum
- The 'use and disuse theory' was proposed by a) Charles Darwin
b) Ernst Haeckel c) Jean Baptise Lamarck d) Gregor Mendel
- Polyphagia is a condition seen in
a) Obesity b) diabetes mellitus c) Diabetes insipidus d) AIDS
- Which software is used to create animation?
a) paint b) PDF c) Ms- word d) scratch

PART - II

Note : Answer any seven questions. Question No. 22 is Compulsory.

- Mark the correct choice. 7 x 2 = 14
Assertion : Myopia is due to the increase in the converging power of eye lens.
Reason : Myopia can be corrected with the help of concave lens.
a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) Assertion is true but reason is false. d) Assertion is false but reason is true.
- Explain why, the ceilings of concert halls are curved?
- True or false. If false give the correct statement.**
a) Moseley's periodic table is based on atomic mass.
b) All ores are minerals ; but all minerals cannot be called as ores.

16. **Fill in the blanks.**
 - a) The equilibrium attained during the melting of ice is known as
 - b) Chemical-Volcano is an example for type of reaction.
17. Why is the colour of blood red?
18. Name the gaseous plant hormone. Discuss its two different actions in plants.
19. **Match the following.**

a) autosomes	-	9 : 3 : 1 : 3 : 1
b) Diploid condition	-	22 pair of chromosomes
c) Allosome	-	2n
d) Dihybrid ratio	-	23 rd pair of chromosome
20. State the applications of DNA finger printing technique.
21. Expand the following abbreviation.

a) BMI	b) AIDS	c) HIV	d) CHD
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22. A charge of 12 coulomb flows through a bulb in 6 second. What is the current through the bulb?

PART - III

Note : Answer any seven questions. Questions No. 32 is compulsory.

23. Give the applications of universal law of gravitation. 7 x 4 = 28
24. Give any four uses of radio isotopes in the field of medicine.
25. Write short note on

a) Saturated solution	b) Unsaturated solution
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26. Arrive at, systematically, the IUPAC name of the compound
 $\text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{OH}$.
27. Explain the male reproductive system of rabbit with a labelled diagram.
28. Classify neurons based on its structure.
29. Explain Gynocium of flowering plants.
30. Explain chromosome types based on the position of centromere.
31. Define Ethnobotany and write its importance.
32. How many grams are there in the following?
 - a) 2 moles of hydrogen molecule.
 - b) 5 mole of sulphur molecule.

PART - IV

Note : Answer all the questions. Draw diagrams wherever necessary.

33. a) Derive the ideal gas equation. b) Define one kilo calorie. (OR) 3 x 7 = 21
 What is an echo?
 - a) State two conditions necessary for hearing an echo.
 - b) What are the medical applications of echo?
 - c) How can you calculate the speed of sound using echo?
34. a) Explain the method of preventing metal corrosion.
 b) Name the acid that renders aluminium passive. Why?
 c) Identify the bond between H and F in HF molecule. (OR)
 - a) Explain the factors influencing the rate of a reaction.
 - b) If the p^{H} of solution is 4.5, What is its p^{OH} ?
35. a) Differentiate : Aerobic and Anaerobic respiration.
 b) Why are the factors affecting photosynthesis. (OR)
 Enumerate the importance of forest.