

HALF YEARLY EXAM : 2019-20

FZB/130

Class : X

Subject : SCIENCE

Time : 1:30 Hrs.

M.M. : 40

Note : All questions are compulsory.

SECTION-A

I. Multiple Choice Questions :

- The term isomerism applies to organic compound with same.
 - Molecular formula but different structural formula
 - Molecular formula and same structural formula
 - Structural formula but different molecular formula
 - Empirical formula and different molecular formula
- Asexual Reproduction through budding takes place in :
 - Amoeba
 - Paramcium
 - Yeast
 - Spirogyra
- Which gas is evolved when metal reacts with acid.
 - CO₂
 - SO₂
 - H₂
 - NO₂
- Who is known as father of genetics
 - Charles Darwin
 - J.B. Lamore
 - Gregor J Mendel
 - Oparin
- The physical quantity whose unit is equivalent to J/C.
 - Ampere
 - Volt
 - Ohm
 - Watt.

SECTION-B

- Draw the possible structural isomers of pentane.
- What are acquired traits? Explain it with example.
- Show the formation sodium oxide and magnesium oxide by the transfer of electrons.

9. An electric lamp of $100\ \Omega$, a toaster of resistance $50\ \Omega$ and a water filter of resistance $500\ \Omega$ are connected on parallel to $220\ \text{V}$ source. What is the resistance of electric iron connected to the same source as much current as all three appliances and what is the current through it?
10. What are sexually transmitted diseases? Name two such disease.

SECTION-C

11. (a) What is the difference between calcination and Roasting?
(b) What are the steps followed for the extraction of metals in middle of reactivity series?
12. How is the sex of a child determined in human beings?
13. Show how you would connect three resistor each of resistance $6\ \Omega$, so that the combination has a resistance of (i) $9\ \Omega$ (ii) $4\ \Omega$.
14. (a) What is esterification reaction? Explain with example.
(b) Draw structure of:
(i) 2-Chloropentane
(ii) Butanone
15. Draw a well labelled structure of d.s. of flower showing fertilisation.

SECTION-D

16. (a) Define 1 ampere
(b) Derive an expression for the combination of resistance connected in parallel.
(c) What is electric power? Give its S.I. unit.
17. (a) Write the function of the following:
(i) Ovary (ii) Uterus (iii) Testes
(b) What is placenta? What is its function?