

TB213100V

Reg. No :

Name :

B. Sc. DEGREE (C.B.C.S) EXAMINATION, NOVEMBER 2022
(2021 Admissions Regular, 2020 Admissions Supplementary/Improvement, 2019 & 2018 Admissions Supplementary)
SEMESTER III - COMPLEMENTARY COURSE 1 (CHEMISTRY)
(For Botany, Zoology & Home Science)
CH3C01B18 - INORGANIC AND ORGANIC CHEMISTRY

Time : 3 Hours

Maximum Marks : 60

Part A

I. Answer any Ten questions. Each question carries 1 mark **(10x1=10)**

1. Recall a radioactive isotope used to treat cancer.
2. Interpret low packing fraction value.
3. Describe an application of the isotope C60.
4. Recall the element present in vitamin B12.
5. Define co-operativity effect.
6. Define photolysis.
7. Recall the structures of two heterocyclic compounds containing nitrogen.
8. Pyrrole is a weaker base than pyridine. Explain.
9. Recall the structure of ampicillin.
10. Define antibiotics.
11. List the constituents of soft drinks.
12. List two examples of natural antioxidants.

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Explain the working of a nuclear reactor with a diagram.
14. Discuss the applications of radioactive isotopes in the field of medicine.
15. Explain the role of Manganese in plant growth.
16. Explain the properties of herbicides. Give two examples.
17. List the chemical components of bordeaux mixture. Describe the preparation of 1% bordeaux mixture.
18. Discuss any five reactions of pyridine.
19. Discuss briefly the physical and chemical properties of furan.
20. Explain how perfumes and deodorants differ in composition.
21. Discuss on the harmful effects of cosmetics.

Part C

III. Answer any Two questions. Each question carries 10 marks **(2x10=20)**

22. Explain the principle and working of hydrogen bomb.
23. Differentiate between haemoglobin and myoglobin and their oxygen transport mechanism.
24. Discuss the structure, properties, method of preparation and uses of DDT.
25. Explain the mode of action and therapeutic applications of ampicillin.