

Internal Examination 2022-2023
CHEMISTRY
B.Sc- Part III
Paper – II- Organic Chemistry

Marks-33

Time-3h

Answer the following questions:

1. How do you account for the following facts: (4 Marks)
 - (i) Pyrrole is a weaker base than pyridine
 - (ii) Nitration of pyridine gives mainly gives 3- nitropyridine but NaNH_2 gives 2-aminopyridine
2. Describe the synthesis of the following compounds: (4 Marks)
 - (i) Furan
 - (ii) Thiophene
 - (iii) Isoquinoline
 - (iv) Indole
3. Using Grignard reagent, how do you synthesis the following: (4 Marks)
 - (i) Propane
 - (ii) Acetone
 - (iii) Tertiary butyl alcohol
 - (iv) Thiol
4. Discuss the structure of alkyl Lithium. (2 Marks)
5. What are organo-zinc compounds? Describe their methods of preparation. (2 Marks)
6. How do you prepare the following dyes: (4 Marks)
 - (i) Methyl orange
 - (ii) Congo Red
7. Explain the different types of electronic transition with suitable example. (4 Marks)
8. Explain Beer-Lambert Law. (3 Marks)
9. What is electromagnetic radiation? Explain its different spectrum regions. (4 Marks)
10. What is finger-print region?. Give Two applications of finger print region. (2 Marks)