

**M.Sc. 3rd Semester Examination, 2022**

**CHEMISTRY**

**PAPER – CEM-304 (CCAЕ)(CBCS)**

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

**GROUP – A**

Answer any four questions : 2 × 4

1. Define pharmacodynamics and pharmacokinetics ?
2. What do you mean by ADME ?
3. How receptor molecules accept the drug ?

4. What are receptor molecules ? Give two examples.
5. What is metabolite-antagonism ?
6. What do you mean by Insomnia ?

**GROUP – B**

Answer any **four** questions : 4 × 4

7. Explain how captopril binds with Enzyme ACE and blocked it ? Explain with diagram.
8. Show how salbutamol act as agonistic drug and used for bronchodilator ?
9. Described the inactivation of prostaglandin synthesis by aspirin.
10. What are the points to be noted during study of pharmacokinetics of drugs ?
11. Discuss about the way of drug administration with suitable example.

12. Write down the synthetic steps involved in the synthesis of chlorprocaine.

GROUP – C

Answer any two questions : 8 × 2

13. Draw the structure of ranitidine and explain how it acts as blocker for the treatment of acidity in stomach ? Describe the synthesis of ranitidine.
14. Outline the synthesis steps of the following drugs
- (i) Paracetamol
  - (ii) Salbutamol.
15. Write down the synthetic steps involved in the preparation of captopril. Explain how chloroquine acts as antimalarial drug ?
16. Classify local anaesthetics according to their clinical use with proper examples. Define opioid analgesics. Write down the mode of action of this drug.
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