



**RAJARATA UNIVERSITY OF SRI LANKA  
FACULTY OF APPLIED SCIENCES**

**B.Sc. Honours in Chemistry  
Fourth Year Semester II Examination – January / February 2023**

**CHE 4212 – PHAMACEUTICAL AND MEDICINAL CHEMISTRY**

**Time: Two (02) hours**

Answer all questions.

1.
  - a) Discuss the lead compounds in drug discovery with aid of suitable examples. (40 marks)
  - b) Briefly describe the types of screening applied in drug discovery. (60 marks)
2.
  - a) Elaborate the developmental stages of a new drug. Clearly indicate the relevant phases. (60 marks)
  - b) Giving suitable diagrams, describe the hydrophobic interactions involved in the Drug-Receptor complexes. (40 marks)
3.
  - a) Discuss why it is important to have slow and prolong release of a drug in the body. (30 marks)
  - b) Discuss how the drug, GABA (Gamma-aminobutyric acid), can be made to be an effective drug in terms of crossing the blood brain barrier. (40 marks)
  - c) Define the Phase II biotransformation. List the features of reactions taking place in Phase II. (30 marks)
4. Write short notes on following topics giving suitable examples where applicable.
  - a) Subacute toxicity
  - b) Polymeric prodrugs
  - c) Excretion
  - d) Ionic interactions in drug-receptor complexes. (25×4 marks)

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