

UNIVERSITY OF JAFFNA
BACHELOR OF PHARMACY
FOURTH YEAR SECOND SEMESTER EXAMINATION MARCH 2019
PHADD 4223 DRUG DISCOVERY AND DEVELOPMENT

Date: 22.03.2019

Time:03 Hours

ANSWER ALL 6 QUESTIONS

1. Describe the following as drug targets with examples.
 - 1.1 Enzyme (50 Marks)
 - 1.2 Receptor (50 Marks)

2.
 - 2.1 What is the purpose of the High Throughput Screening (HTS)? (10 Marks)
 - 2.2 Briefly explain major five components in the HTS? (30 Marks)
 - 2.3 List five detection methods used in HTS? (15 Marks)
 - 2.4 Briefly describe three fluorescence techniques that can be used for HTS? (45 Marks)

3.
 - 3.1 Name the optical biosensor technology with label free principal. (10 Marks)
 - 3.2 Write the advantages and disadvantages of above mentioned technology (15 Marks)
 - 3.3 List the information obtained from the above mentioned technology. (10 Marks)
 - 3.4 Write the principle of the above mentioned technology. (65 Marks)

4.
 - 4.1 What is the aim of the *de novo* drug design? (10 Marks)
 - 4.2 List the advantages of solid phase synthesis. (30 Marks)
 - 4.3 Write the requirements for the solid phase synthesis (20 Marks)
 - 4.4 Describe the protection strategy used in the solid phase synthesis (40 Marks)

5. Describe. (50 Marks)
 - 5.1 Phase I clinical trail. (50 Marks)
 - 5.2 Phase III clinical trail.

6. Write an account on:
 - 6.1 Approval procedure of clinical trail in Sri Lanka (25 Marks)
 - 6.2 Cross over studies (25 Marks)
 - 6.3 Pre-clinical animal studies (50 Marks)