

**UNIVERSITY OF JAFFNA, SRI LANKA
FACULTY OF ALLIED HEALTH SCIENCES
FOURTH YEAR SECOND SEMESTER EXAMINATION IN BPharmHons- 2020
PHADD 4223 DRUG DISCOVERY AND DEVELOPMENT**

Date: 05/10/2022

Time: 03 Hours

Answer All Questions

1.
 - 1.1 Briefly explain the differences in drug discovery researches conducted by academic institutions and pharmaceutical industries. (60 Marks)
 - 1.2 Write a short note on following.
 - 1.2.1 Neglected tropical diseases (20 Marks)
 - 1.2.2 Research & Development blueprint (20 Marks)
2.
 - 2.1 Briefly explain the techniques used in target identification. (50 Marks)
 - 2.2 approaches used in changing ligand target environment. (50 Marks)
3.
 - 3.1 What are the factors that affect the quality of the assay? (25 Marks)
 - 3.2 Briefly discuss on the factors that affect the results of cell-based assay. (50 Marks)
 - 3.3 List the detection methods used for High through put screening? (25 Marks)
4.
 - 4.1 Define the following.
 - 4.1.1 Hit molecule (05 Marks)
 - 4.1.2 Lead compound (05 Marks)
 - 4.3 List the characteristics of a successful lead molecule? (20 Marks)
 - 4.4 Discuss the importance of hit molecule to lead transformation in drug discovery. (50 Marks)
 - 4.5 What are the methods used in lead identification? (20 Marks)
5.
 - 5.1 List the benefits of combinatorial chemistry? (20 Marks)
 - 5.2 Briefly explain the techniques used in combinatorial chemistry. (50 Marks)
 - 5.3 Differentiate combinatorial and traditional synthesizes? (30 Marks)
6.
 - 6.1 List the principal components of phase 1 clinical studies? (40 Marks)
 - 6.2 Discuss the importance of toxicological studies in various stages of drug discovery and development process. (60 Marks)