UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF PHARMACY
FOURTH YEAR SECOND SEMESTER EXAMINATION – AUGUST 2016
PHADD 4202 DRUG DISCOVERY AND DEVELOPMENT

Date: 05/08/2016 **Time: 03 Hours**

Answer all 6 questions.

1.	1.1	What is the aim of the High Throughput Screening (HTS)?	(10 Marks)
	1.2	Briefly explain major five (5) components in the HTS.	(30 Marks)
	1.3	List the advantages and disadvantages of cell based assays.	(30 Marks)
	1.4	Briefly describe three fluorescence techniques that can be used for HTS	(30 Marks)
2.		Describe the following as drug targets.	
	2.1	Nucleic acids	(50 Marks)
	2.2	Enzymes	(50 Marks)
3.	3.1	What are the requirements for the solid phase synthesis?	(20 Marks)
	3.2	What are the advantages of solid phase synthesis?	(20 Marks)
	3.3	Draw the structures of five (5) resins that are used in solid phase synthesis.	(30 Marks)
	3.4	Draw a synthetic pathway of a drug to describe the solid phase synthesis.	(30 Marks)
4	4.1	Describe the Phase I clinical trial.	(30 Marks)
	4.2	Describe the factors that you would consider when you select a subject for Phase 1 clinical trial.	(40 Marks)
	4.3	What are the responsibilities of a regulatory authority in drug development?	(30 Marks)
5	5.1	What are the aims of the chemical development?	(20 Marks)
	5.2	Briefly describe the phases in the chemical development?	(20 Marks)
	5.3	Describe the strategies that are used in the chemical development to optimize reactions.	(60 Marks)
6		Explain methods used to improve the kinetics of a drug during development.	(100 Marks)