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<u>UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE</u>

ALLIED HEALTH SCIENCES DEGREE PROGRAMME FOURTH B.PHARM PART I EXAMINATION – DECEMBER 2015 PH 4141 Cell biology & Immunology (SEQ)

TIME: 2 Hours

INSTRUCTIONS

- Answer all questions.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

1.1	Indicate the major functions of innate immunity.	(25 marks)
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1.2	2. Explain any three important properties of adaptive immunity.	(25 marks)

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1.3.	Compare cell mediated immunity and humoral immuni	ty. (25 marks)
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1.4.	Write a brief account on different stages of lymphocyt	es. (25 marks)
1.4.	Witte a otter account on different stages of tymphologic	
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2.1. Briefly explain the typical structure of an antibody.	(30 marks)
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2.2. Write a short account on different functions of antibodies.	(30 marks)

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2.3.	Distinguish the properties of monoclonal and polyclonal antibodies.	(20 marks)
2.3.	Distinguish the properties of monocional and perference accretion	
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2.4.	Indicate the key steps in successful antibody production.	(20 marks)

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3.1.	What is immunotherapy? Explain briefly	(25 marks)
	what is infinitelectopy. Explain execution	
3.2.	Briefly describe how tumor cells escape from immune	-surveillance. (25 marks)
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	Index No:	
3.3.	State the two different types of receptors involved in cellular signal transdo	action.
	Give two ligands for each type of receptors you have mentioned in 3.3.	
	Mention the main components of G-protein mediated signal transduction.	
3.6. I	Explain the mechanism involved in signal transduction by G-protein	(30 marks
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4. A	Answer all parts.	
4.1		
	4.1.1 Describe the structure of a proteasome.	(15 marks)
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	4.1.2 'Immune proteasomes are the source for most antigenic peptides used	n generating
	adaptive immunity against viral infections'. Discuss.	(30 marks)
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4.1.3	Describ	e briefly the structural arrangement of DNA into chromosomes.	(25 marks)
4.2			
4.2	401	State the two main process of the protein synthesis. Give cellular local	ation of each
	4.2.1	state the two main process of the protein synthesis. Give centual root	(10 marks)
		process.	
		1	
			(20 marks)
	4.2.2	Describe briefly a process you have mentioned in 4.2.1	

