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UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE

ALLIED HEALTH SCIENCES DEGREE PROGRAMME

SECOND BPHARM PART I EXAMINATION – JULY 2017

PH 2134 PATHOLOGY AND PHARMACOLOGY I (SEQ)

TIME: THREE HOURS

INSTRUCTIONS

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

1.

1.1. Name **three** classes of diuretics except loop diuretics. (***10 marks***)

1.2. Name **three** loop diuretics. (***10 marks***)

1.3. Describe the mechanism of action of loop diuretics. (***20 marks***)

1.4. Briefly explain the clinical indications of loop diuretics. (***45 marks***)

1.5. "Hydrochlorothiazide is useful in the treatment of kidney stones caused by hypercalciuria". Explain. (***15 marks***)

2.

2.1. Renin-Angiotensin-Aldosterone System (RAAS) plays an important role in regulating blood volume and systemic vascular resistance. Enalapril is a drug acting on RAAS.

2.1.1. What are the classes of drugs act specifically on the RAAS. (***10 marks***)

2.1.2. Explain the mechanism of action of enalapril. (***30 marks***)

2.1.3. Enalapril causes dry cough, explain why? (***10 marks***)

2.2. Write short notes on the following.

2.2.1. Plasma half-life. (***25 marks***)

2.2.2. Dose-response curves. (***25 marks***)

3. .

3.1. Explain the **three** modes of actions of sympathomimetics. (***15 marks***)

3.2. Write **one** sympathomimetic stimulated response for each of the following organs. (***20 marks***)

3.2.1. Eye

3.2.2. Heart

3.2.3. Respiratory tract

3.2.4. Bladder

3.2.5. Blood vessels

3.3. List **three** catecholamines and **three** non-catecholamines used as sympathomimetics. (***24 marks***)

3.4. What is eclampsia? (***06 marks***)

3.5. Name **five** risk factors for eclampsia. (***10 marks***)

3.6. Write a brief description about clinical trials. (***25 marks***)

4.

4.1. Write down the pharmacokinetics of depolarizing drugs. (***20 marks***)

4.2. Write **five** contraindications for suxamethonium. (***10 marks***)

4.3. Explain the mechanism of action of anticholinesterases. (***25 marks***)

4.4. List **four** anticholinesterase drugs used for reversal of block. (***10 marks***)

4.5. Explain the mechanism of action of direct acting cholinergics. (***25 marks***)

4.6. State the differences between atropine and hyoscine. (***10 marks***)

5.

5.1. What is Goodpasture's syndrome? (***05 marks***)

5.2. Name **six** types of treatments for autoimmunity. (***10 marks***)

5.3. What are the **three** immunological abnormalities that lead to cell injury? (***10 marks***)

5.4. Describe the following cell adaptations giving **one** example for each. (***25 marks***)

5.4.1. Hypertrophy

5.4.2. Atrophy

5.4.3. Hyperplasia

5.5. What is "Apoptosis"? (***20 marks***)

5.6. List **five** types of necrosis. (***10 marks***)

5.7. What are the mediators of immediate effects of Type I hypersensitivity? (***10 marks***)

5.8. Write the pharmacological treatments for Type I hypersensitivity reactions. (***10 marks***)

6.

6.1. What is acute inflammation? (***10 marks***)

6.2. What are the clinical features of acute inflammation? (***10 marks***)

6.3. Describe the role played by chemical mediators in acute inflammation. (***20 marks***)

6.4. What are the sequale of acute inflammation? (***10 marks***)

6.5. Describe the characteristic features of chronic inflammation. (***20 marks***)

6.6. State **five** examples of chronic inflammation. (***10 marks***)

6.7. What is a granuloma? (***10 marks***)

6.8. List **five** causes of granulomatous inflammation. (***10 marks***)

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