



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM. D. DEGREE EXAMINATION - JULY 2018

SUBJECT: PPR 2.1T: PATHOPHYSIOLOGY
(REVISED REGULATION 2014)

Wednesday, July 18, 2018 (10.00 - 13.00)

Answer ALL the questions.

Marks: 70

Duration: 180 mins.

1. Long answer questions:

- 1A) Explain the role of various chemical mediators in acute inflammation. (10)
- 1B) Classify urinary tract infection and explain its pathophysiology. (10)
- 1C) Discuss the criteria for major depressive disorder and manic episode as per diagnostic and statistical manual of mental disorder (DSM-IV). (10)

2. Short answer questions:

- 2A) Discuss the signs and symptoms of chronic renal failure. (5)
- 2B) Describe the mechanisms involved in immune tolerance. (5)
- 2C) Describe the signs and symptoms of Parkinsonism. (5)
- 2D) Discuss various enzymatic and ECG changes in myocardial infarction. (5)
- 2E) Discuss Child-Pugh classification of cirrhosis. (5)
- 2F) Enlist various risk factors and complications associated with pneumonia. (5)

3. Give reasons for the following:

- 3A) Deficiency of vitamin C & Zinc may delay the wound healing. (2)
- 3B) Obstructed urinary catheter may lead to post-renal failure. (2)
- 3C) Rheumatic heart disease may occur following an infection with *Streptococcus pyogenes*. (2)
- 3D) Hypertensive emergency and hypertensive urgency are different from each other. (2)
- 3E) Tuberculin skin test is used in the diagnosis of tuberculosis. (2)

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM. D. DEGREE EXAMINATION - JULY 2018

SUBJECT: PBT 2.2T: PHARMACEUTICAL MICROBIOLOGY

(REVISED REGULATION 2014)

Friday, July 20, 2018 (10.00 - 13.00)

Answer ALL the questions.

Marks: 70

Duration: 180 mins.

Long answer questions:

- 1) Define bacterial growth and enlist the methods of quantitative measurement of growth. (10)
Discuss viable count.
- 2) Define and classify sterilisation. Discuss Gamma radiation sterilisation as under: Source, (10)
mechanism of action, sterilisation dose and applications.
- 3) Define and classify immunity. Give an account of Phagocytosis. (10)

4. Short answer questions:

- 4A) Briefly outline the structure of a bacteriophage. (5)
- 4B) Enlist various methods of preservation of bacterial cultures and explain any two. (5)
- 4C) Enlist the methods of evaluating bacteriostatic activity of disinfectants and explain any two. (5)
- 4D) Describe the life cycle of malarial parasite and specify the treatment. (5)
- 4E) Define immune sera and define the doses used for standardisation. (5)
- 4F) Write the causative organism, mode of transmission, pathogenesis and treatment for cholera. (5)

5. Give reasons for the following:

- 5A) Phase contrast microscope helps in differentiating the internal cell structures. (2)
- 5B) *Staphylococcus aureus* is not prone to coliform phage attacks. (2)
- 5C) Fluid thioglycolate medium is used for culturing anaerobic bacteria. (2)
- 5D) Protoplast of Gram positive bacteria is Gram negative. (2)
- 5E) Culture medium containing gelatin cannot be sterilised by autoclaving. (2)

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM. D. DEGREE EXAMINATION - JULY 2018
SUBJECT: PCO 2.3T: PHARMACOGNOSY AND PHYTOPHARMACEUTICALS
(REVISED REGULATION 2014)

Tuesday, July 24, 2018 (10.00 - 13.00)

Answer ALL the questions.

Draw structures and diagrams wherever necessary.

Marks: 70

Duration: 180 mins.

Long answer questions:

- 1) Explain the role of plant growth regulators in the cultivation of crude drugs. (10)
- 2) Describe the morphology, microscopy and microscopical powder characters of Quassia. (10)
- 3) Give the botanical source, family and uses of Opium; and describe its cultivation and collection. (10)

4. Short answer questions:

- 4A) Compare and contrast between morphological and pharmacological classification of crude drugs. (5)
- 4B) Describe the preparation of honey, give its botanical source, chemical constituents and uses. (5)
- 4C) What are Lipids? Write a note on methods (ANY FOUR) of analysis of fixed oils. (5)
- 4D) Discuss the chemistry of Proteins. (5)
- 4E) Describe Isapgol under a suitable Pharmacognostic scheme. (5)
- 4F) Give the source, preparation and uses of Absorbent cotton. (5)

5. Give reasons for the following:

- 5A) Crude drugs are often substituted with substandard drugs. (2)
- 5B) Volatile oils are completely different from fixed oils. (2)
- 5C) Pyrethrum need synergistic additions. (2)
- 5D) Calcium oxalate crystals cannot be seen in sections stained with Phloroglucinol and HCl. (2)
- 5E) 'Dioscorides' is an important name in the history of Pharmacognosy. (2)

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**MANIPAL ACADEMY OF HIGHER EDUCATION****SECOND YEAR PHARM. D. DEGREE EXAMINATION - JULY 2018****SUBJECT: PHA 2.4T: PHARMACOLOGY - I****(REVISED REGULATION 2014)****Thursday, July 26, 2018 (10.00 - 13.00)****Answer ALL the questions.****Draw structures and diagrams wherever necessary.****Marks: 70****Duration: 180 mins.****Long Answer Questions.**

- 1) How are cardiac arrhythmias generated? Explain the basis of classification of antiarrhythmic drugs. Enumerate the toxicities of amiodarone. (10)
(3+4+3 = 10 marks)
- 2) Describe the metabolic roles of insulin. List the preparations of insulin and explain how they are used to control blood glucose level in diabetics. (10)
(6+4 = 10 marks)
- 3) Discuss the transduction mechanisms of G-protein coupled receptors. (10)

4. Short Answer Questions.

- 4A) Describe the mechanisms of action of antidepressant drugs. (6)
- 4B) Mechanisms of action of anticholinesterases, explain. (6)
- 4C) Sodium valproate, its mechanism of action and adverse effects. (6)
- 4D) Succinylcholine and d-tubocurarine - mechanisms of blockade. (6)
- 4E) Mechanisms of drugs used in Parkinsonism. (6)

5. Give reasons:

- 5A) Adrenaline, administered after α -blockers, produces a fall in blood pressure. (2)
- 5B) Alkaline urine enhances excretion of barbiturates. (2)
- 5C) Inhalational steroids are better than systemic steroids. (2)
- 5D) Montelukast and zafirlukast are useful in bronchial asthma. (2)
- 5E) Repeated administration of ephedrine results in progressive decrease in response. (2)

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM. D. DEGREE EXAMINATION - JULY 2018

SUBJECT: PPR 2.5T: COMMUNITY PHARMACY

(REVISED REGULATION 2014)

Saturday, July 28, 2018 (10.00 - 13.00)

Answer ALL the questions.

Marks: 70

Duration: 180 mins.

Long Answer Questions.

- 1) Explain the components of Pharmacist Workup of Drug Therapy (PWDP) for pharmaceutical care. (10)
- 2) Explain community pharmacist's role in the care for children and elderly patients. (10)
- 3) Explain the barriers for patient counseling and write the strategies to resolve them. (10)

4. Short Answer Questions:

- 4A) Define health screening services and explain its advantages. (5)
- 4B) Explain the clinical presentations and prevention of gonorrhoea. (5)
- 4C) Explain role of community pharmacists in dispensing OTC drugs. (5)
- 4D) Define inventory control and explain VED analysis. (5)
- 4E) Explain maintenance of financial records in community pharmacy. (5)
- 4F) Explain the benefits of computers in community pharmacy. (5)

5. Give Reason for the Following:

- 5A) In ABC analysis 'item A' requires strict control. (2)
- 5B) Cost of medication is an important factor for patient adherence. (2)
- 5C) Drug related problems can lead to decrease quality of life. (2)
- 5D) Patients' religious belief can lead to medication non-adherence. (2)
- 5E) Home care services is a functional activity of community pharmacist. (2)

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM. D. DEGREE EXAMINATION - JULY 2018

SUBJECT: PPR 2.6T: PHARMACOTHERAPEUTICS - I

(REVISED REGULATION 2014)

Tuesday, July 31, 2018 (10.00 - 13.00)

Answer ALL the questions.

Marks: 70

Duration: 180 mins.

Long Answer Questions:

- 1) Explain the management of systemic hypertension according to standard guidelines. (10)
- 2) Mention the various factors contributing to ADRs in the elderly. Explain in detail prescribing guidelines in this population. (10)
- 3) Explain treatment modalities in chronic asthma as per GINA guidelines. (10)

4. Short Answer Questions:

- 4A) Outline various hypolipidemic agents with their efficacy and safety profile. (5)
- 4B) What is Torsade de Pointes? Explain its management. (5)
- 4C) Explain the pharmacotherapy of closed angle glaucoma. (5)
- 4D) What is Diabetic ketoacidosis. Explain the management of the same. (5)
- 4E) Explain the treatment modalities of hyperthyroidism. (5)
- 4F) Enlist different Oral Contraceptive Pills. Describe the important considerations for usage of combined hormonal contraceptives. (5)

5. Give reasons for the following:

- 5A) Combination therapy is effective than monotherapy for attaining BP targets. (2)
- 5B) ACE inhibitors finds many applications in cardio-vascular medicine. (2)
- 5C) Thyroid storm is differ from myxedema coma. (2)
- 5D) Category X drugs are contraindicated in pregnancy. (2)
- 5E) Drug use in children are different from adults. (2)

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