

Question Paper

Exam Date & Time: 14-May-2019 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2019

SUBJECT: PPR 2.1T: PATHOPHYSIOLOGY

(2014 - REGULARS)

Tuesday, May 14, 2019 (10.00 - 13.00 Hrs.)

Marks: 70

Duration: 180 mins.

Long Answer Questions:

- 1) Describe the vascular and cellular events of acute inflammation. (10)
- 2) Discuss etiology and pathophysiology of myocardial infarction. (10)
- 3) Classify benign and malignant tumors and explain the mechanism of spread of malignant tumors. (10)

4. Short Answer Questions:

- 4A) Discuss the etiology of pre-renal acute renal failure. (5)
- 4B) With the help of a diagram explain the functioning of humoral immunity. (5)
- 4C) Describe the positive and negative symptoms of schizophrenia with suitable examples. (5)
- 4D) Discuss the role of renin angiotensin aldosterone pathway in hypertension pathophysiology. (5)
- 4E) Discuss the severity classification for chronic obstructive pulmonary disease (COPD). (5)
- 4F) Discuss the clinical presentation and diagnostic criteria for urinary tract infections. (5)

5. Give Reasons for the Following:

- 5A) Jugular vein distension is more common in right ventricular failure than left ventricular failure. (2)
- 5B) Diabetes and hypertension is the most common cause of chronic renal failure. (2)
- 5C) Auto immune diseases are common in female gender. (2)
- 5D) Oxidative damage is increased during alcoholic liver disease. (2)
- 5E) Intravenous drug abuse is associated with hepatitis infection. (2)

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2019

SUBJECT: PBT 2.2T: PHARMACEUTICAL MICROBIOLOGY

(2014 - REGULARS)

Saturday, May 11, 2019 (10.00 - 13.00 Hrs.)

Marks: 70

Duration: 180 mins.

Long Answer Questions:

- 1) Explain the different methods for isolation of bacteria from soil. Add a note of selection method used for isolating an antibiotic producer. (10)
- 2) Define and Classify Sterilization. Explain why saturated steam is considered as an efficient sterilization agent. (10)
- 3) Define the term 'immunity and explain the structure of immunoglobulin with the help of a neat labelled diagram. Add a note on the function of different immunoglobulins. (10)

4. Short Answer Questions:

- 4A) Explain Whittaker classification of microorganisms. Also classify bacteria on the basis of flagellar arrangement. (5)
- 4B) Write a note on cultivation of viruses. (5)
- 4C) Define disinfection. Explain the merits of Phenol coefficient tests. (5)
- 4D) Illustrate and explain the principle behind Sandwich ELISA. (5)
- 4E) Mention the advantage of microbiological assay of antibiotics over physico-chemical assays and explain the properties of test organism. (5)
- F) Write the causative organism, mode of transmission, symptoms and treatment for Hepatitis B. (5)

5. Give Reasons for the Following:

- 5A) More magnification power is possible with oil-immersion objective. (2)
- 5B) Chemical composition of cell wall is the basis for distinguishing bacteria. (2)
- 5C) Molds can grow in the absence of light. (2)
- 5D) *E. coli* can be differentiated from *Enterobacter aerogenes* by IMViC test. (2)
- 5E) Rehydration is the main course of therapy for cholera. (2)

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Question Paper

Exam Date & Time: 16-May-2019 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2019
SUBJECT: PCO 2.3T: PHARMACOGNOSY AND PHYTOPHARMACEUTICALS
(2014 REGULATIONS)

Thursday, May 16, 2019 (10.00 - 13.00 Hrs.)

Answer ALL questions.

Draw structures and diagrams wherever necessary.

Marks: 70

Duration: 180 mins.

Long Answer Questions:

- 1) Discuss different vegetative methods of propagation of crude drugs. (10)
- 2) Describe the morphology, anatomy and powder microscopy of Rauwolfia. (10)
- 3) Define fats and fixed oils. Discuss the method of analysis of Lipids. (10)

4. Short Answer Questions:

- 4A) Give various sources of starch and add a note on preparation of Maize starch. (5)
- 4B) Write a descriptive note on the modes of action of Neem as pesticide. (5)
- 4C) Define and classify Alkaloids. (5)
- 4D) How do you identify Proteins? Classify them with suitable examples. (5)
- 4E) Discuss the alphabetical and morphological classification of crude drugs. (5)
- 4F) Describe cultivation and collection practices adopted for Cinchona. (5)

5. Give reasons for the following:

- 5A) Hydrolyzed Agar with barium chloride solution gives white precipitate. (2)
- 5B) Digitalis leaves have to be dried below 60° C and stored in a desiccator. (2)
- 5C) Raw cotton is treated with soda ash under pressure. (2)
- 5D) Stone cells are hard and stiff. (2)
- 5E) Quality of crude drugs is a cause of concern. (2)

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2019

SUBJECT: PHA 2.4T: PHARMACOLOGY - I

(REVISED REGULATIONS 2014)

Tuesday, May 07, 2019 (10.00 - 13.00 Hrs.)

Answer all the questions.

Draw the neat, labeled diagram wherever necessary.

Marks: 70

Duration: 180 mins.

Long Essays:

- 1) Describe the structure of G-protein coupled receptor. Explain their signaling pathways mediated by G_q protein with example. (10)
(4+6 = 10 marks)
- 2) With the help of a diagram, explain the cholinergic transmission and drugs affecting it. (10)
(8+2 = 10 marks)
- 3) With a flow chart, explain Renin Angiotensin Aldosterone System and drugs modulating it. (10)
(7+3 = 10 marks)

4. Short Essays:

- 4A) With suitable examples, explain any five patient related factors modifying drug action. (5)
- 4B) Explain the mechanism of action of benzodiazepines and barbiturates. (5)
- 4C) Classify drugs for the treatment of depression. Explain the mechanism of action of MAO inhibitors. (5)
- 4D) With the help of a diagram, explain the mechanism of action of morphine. (5)
- 4E) Explain the hypoglycemic mechanism of action of Insulin. (5)
- 4F) Outline the biosynthesis of prostaglandins. Explain the action of drugs interfering in this pathway. (5)

5. Short answers:

- 5A) Alpha blocker followed by β blocker is useful in the preoperative treatment of pheochromocytoma. (2)
- 5B) Organic nitrates produce Monday morning sickness in workers of explosive industries. (2)
- 5C) L-dopa produces on-off effect when used alone. (2)
- 5D) Ambroxol is used as an expectorant. (2)

5E) Steroids and selective β_2 agonist are used in the management of bronchial asthma. (2)

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Question Paper

Exam Date & Time: 09-May-2019 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2019

SUBJECT: PPR 2.5T: COMMUNITY PHARMACY

(2014 REGULATIONS)

Thursday, May 9, 2019 (10.00 - 13.00 Hrs.)

Answer ALL questions.

Marks: 70

Duration: 180 mins.

Long Answer Questions:

- 1) Explain the skills required for pharmacist to provide effective pharmaceutical care. (10)
- 2) With the help of a model prescription, explain various parts of a prescription. (10)
- 3) Discuss the clinical presentation and prevention of gonorrhoea and AIDS. (10)

4. Short Answer Questions:

- 4A) Explain the role of community pharmacist in family planning. (5)
- 4B) Explain the stages of patient counseling process. (5)
- 4C) Explain clinical presentation and prevention of hepatitis. (5)
- 4D) Explain the importance of maintaining financial records in community pharmacy. (5)
- 4E) Explain the drugs used in the treatment of worm infestations. (5)
- 4F) Explain PRIME problems in pharmaceutical care. (5)

5. Give Reason for the Following:

- 5A) Time is a major constraint in counseling. (2)
- 5B) Health is not merely the absence of disease or infirmity. (2)
- 5C) Potassium containing laxatives should not be preferred for prolonged use. (2)
- 5D) Patient medication adherence behavior is important in treatment outcomes. (2)
- 5E) Pharmacists have a definite role in health promotion. (2)

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Question Paper

Exam Date & Time: 20-May-2019 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2019

SUBJECT: PPR 2.6T: PHARMACOTHERAPEUTICS - I
(2014 REGULATIONS)

Monday, May 20, 2019 (10.00 - 13.00 Hrs.)

Marks: 70

Duration: 180 mins.

Long Answer Questions:

- 1) Classify Supra Ventricular Arrhythmias. Explain the management of Junctional tachycardia. (10)
- 2) Explain the role of bronchodilators and corticosteroids in the management of asthma. Explain the use of Metered Dose Inhaler (MDI). (10)
- 3) Discuss the role of oral hypoglycemic agents used in the management of Type 2 Diabetes Mellitus. (10)

4. Short Answer Questions:

- 4A) Define rational use of medicines according to WHO. Explain any FIVE examples of irrational prescribing. (5)
- 4B) Explain electrophysiology of the heart with help of a diagram. (5)
- 4C) Differentiate hypothyroidism with hyperthyroidism based on clinical signs and symptoms. (5)
- 4D) Describe ABCDE in the management of Stable Angina. (5)
- 4E) Mention the advantages and disadvantages of estrogen and progestin in Hormone Replacement Therapy. (5)
- 4F) Explain with the help of an algorithm, the management of osteoporosis. (5)

5. Give reasons for the following:

- 5A) DAPT are evidenced treatment strategy for ACS patients. (2)
- 5B) Low cardiac output results in increased venous pressure. (2)
- 5C) Bisphosphonate tablet should be taken in sitting position. (2)
- 5D) Category A drugs are safe during pregnancy. (2)
- 5E) FEV₁ is the most clinically significant pulmonary function test. (2)

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