

# Question Paper

Exam Date & Time: 05-May-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D DEGREE EXAMINATION - MAY 2022

SUBJECT: PPR 2.1T: PATHOPHYSIOLOGY

(REVISED REGULATION - 2014)

Answer ALL questions.

Marks: 70

Duration: 180 mins.

### Long Answer Questions.

- 1) Enlist the etiology of cell injury and discuss the pathogenesis of ischemic or hypoxic cell injury. (10)
- 2) Discuss the etiology, risk factors and pathophysiology of chronic obstructive pulmonary disease (COPD). (10)
- 3) Discuss etiology and pathophysiology of urinary tract infection. (10)

### 4. Short Answer Questions.

- 4A) What is chronic granulomatous inflammation? Discuss its pathogenesis. (5)
- 4B) Explain the structure and functions of major histocompatibility complex antigens. (5)
- 4C) With the help of a table contrast the feature of malignant and benign tumors. (5)
- 4D) Discuss pathophysiology of peptic ulcer disease. (5)
- 4E) Enlist the difference between type-1 and type-2 diabetes. (5)
- 4F) Discuss the harmful effects of air pollution. (5)

### 5. Give Reasons for the Following.

- 5A) Prostaglandins are the important chemical mediators of inflammation. (2)
- 5B) Osteomalacia is the most complication of chronic renal failure. (2)
- 5C) Inflammation is a protective response of the body to tissue injury. (2)
- 5D) Stable and unstable angina are different from each other. (2)
- 5E) Smoking is associated with ischemic stroke. (2)

-----End-----

# Question Paper

Exam Date & Time: 02-May-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D DEGREE EXAMINATION - MAY 2022  
SUBJECT: PBT 2.2T: PHARMACEUTICAL MICROBIOLOGY  
(REVISED REGULATIONS 2014)

Answer all the questions.

Draw neat labeled diagrams wherever necessary.

Marks: 70

Duration: 180 mins.

Answer all the questions.

Long answer questions.

- 1) Define and classify culture media. Explain how EMB and MSA agar serves as selective and differential media. (10)
- 2) Define saturated steam. With the help of a phase diagram discuss the ways and means of formation and prevention of superheated steam and in the industrial autoclaves. (10)
- 3) Citing suitable examples, classify and explain the types of bacterial toxins and elaborate on their pharmaceutical importance. (10)

4. Short answer questions.

- 4A) Compare and contrast the following: (5)
  - i) Conidiospores of *Penicillium* and *Aspergillus*.
  - ii) Asexual spores of *Aspergillus* and *Rhizopus*.
- 4B) With suitable description of cultivating virus in embryonated eggs, mention the difficulties associated with laboratory cultivation of viruses. (5)
- 4C) Briefly outline the method for evaluating bacteriostatic activity of a disinfectant by serial dilution in fluid media. (5)
- 4D) What are primers? Enlist the properties of an ideal primer in polymerase chain reaction. (5)
- 4E) Discuss microbiological assay of amikacin using factorial method. (5)
- 4F) Write the causative agent, mode of transmission, important symptoms, prevention and treatment of cholera. (5)

5. Give reasons for the following.

- 5A) Cedar wood oil improves the resolving power of compound light microscope. (2)
- 5B) Bacterial capsules can promote the stability of bacterial cells in suspension. (2)
- 5C) CMC is superior to RWC. (2)

- 5D) Protoplast of Gram-positive bacteria is Gram negative. (2)
- 5E) Mosquito bearing malarial parasites in its salivary gland bites more number of individuals than normal mosquitos. (2)

-----End-----

# Question Paper

Exam Date & Time: 12-May-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2022  
SUBJECT: PCO 2.3T: PHARMACOGNOSY AND PHYTOPHARMACEUTICALS  
(REVISED REGULATION 2014)

Answer all questions.

Draw structures and diagrams wherever necessary.

Marks: 70

Duration: 180 mins.

### Long answer questions.

- 1) Describe the morphology and microscopy of seeds, correlate it with Nuxvomica. (10)
- 2) Give an account of drying and storage of crude drugs. (10)
- 3) Write a descriptive note on cellulose and its products. Add a note on surgical fibers. (10)

### 4. Short answer questions.

- 4A) Write a note on Tobacco as a pesticide. (5)
- 4B) Describe preparation Microfibrillar Collagen and add a note on its application. (5)
- 4C) What are glycosides? Classify them with suitable examples. (5)
- 4D) How do you classify crude drugs under chemical classification, cite examples (5)
- 4E) Give botanical sources, chemical constituents, cultivation and collection of Senna. (5)
- 4F) Write source, constituents, uses and preparation of Bees wax. (5)

### 5. Give reasons for the following.

- 5A) Rauwolfia root is collected with bark intact. (2)
- 5B) Ergot powder has to be defatted and stored. (2)
- 5C) Shark liver oil is stored in an amber coloured container. (2)
- 5D) Cocoa seeds are roasted and fermented. (2)
- 5E) Honey contains pollen grains. (2)

-----End-----

# Question Paper

Exam Date & Time: 10-May-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2022

SUBJECT: PHA 2.4T: PHARMACOLOGY - I

(REVISED REGULATION)

Answer all the questions and draw a labeled diagram wherever necessary.

Marks: 70

Duration: 180 mins.

### Long Essays:

- 1) Discuss the pharmacological actions of morphine on CNS. Enumerate the uses and adverse effects of morphine. List the symptoms of morphine poisoning and suggest a specific antidote. (10)  
(4+4+2 = 10 marks)
- 2) Describe the synthesis and release of thyroid hormones. Explain how the various antithyroid drugs act. List the adverse effects of propylthiouracil. (10)  
(4+4+2 = 10 marks)
- 3) Discuss the processes and mechanisms of drug absorption. (10)

### 4. Short Answer Questions.

- 4A) Explain the role of renin-angiotensin-aldosterone axis in blood pressure maintenance. How do drugs affect this axis? (6)
- 4B) Discuss the cardiovascular effects of drugs acting on  $\beta$ -receptors. (6)
- 4C) Describe the mechanisms of action of drugs used in bronchial asthma. (6)
- 4D) Discuss the role of statins in hyperlipidemia. What are their adverse effects? (6)
- 4E) Explain the mode of action of local anaesthetics. Why are they less effective in inflamed tissues? (6)

### 5. Give reasons:

- 5A) The dose of warfarin in patients is raised, who start taking phenobarbitone for epilepsy. (2)
- 5B) Pantoprazole is prescribed to a patient taking diclofenac for his joint aches. (2)
- 5C) Neostigmine is preferred to physostigmine for myasthenia gravis. (2)
- 5D) Adrenaline is used topically to arrest bleeding after tooth extraction. (2)
- 5E) Tamsulosin is better than terazosin for benign prostatic hypertrophy (BPH). (2)

-----End-----

# Question Paper

Exam Date & Time: 14-May-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D. DEGREE EXAMINATION - MAY 2022

SUBJECT: PPR 2.5T: COMMUNITY PHARMACY

(REVISED REGULATIONS 2014)

Marks: 70

Duration: 180 mins.

### Long Answer Questions:

- 1) Define community pharmacy and explain Schedule N requirement to start a community Pharmacy. (10)
- 2) Enumerate the factors contributing to irrational drug use and describe pharmacist role in rational drug use. (10)
- 3) Define pharmaceutical care. Discuss the skills required for the pharmacists to provide pharmaceutical care. (10)

### 4. Short Answer Questions:

- 4A) Explain different methods of Economic order quantity (EOQ) analysis in inventory management. (5)
- 4B) Explain the application of computers in community pharmacy. (5)
- 4C) Explain how can pharmacist respond to minor ailments like pain and pyrexia. (5)
- 4D) Explain the role of community pharmacist in care for pregnant and breast feeding women. (5)
- 4E) Explain how community pharmacist can minimize the risk of drug interactions. (5)
- 4F) Explain the legality of prescription. (5)

### 5. Give Reason for the Following:

- 5A) Inventory turnover six to eight is ideal for any drug store. (2)
- 5B) Community pharmacists are encouraged to engage in patient health screening services. (2)
- 5C) Maintenance of financial record is very important in any community pharmacy. (2)
- 5D) The disease is an important factor associated with medication non-adherence. (2)
- 5E) The BALD method is used to assess the patient information leaflet. (2)

-----End-----

# Question Paper

Exam Date & Time: 07-May-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR PHARM D DEGREE EXAMINATION - MAY 2022  
SUBJECT: PPR 2.6T: PHARMACOTHERAPEUTICS - I  
(REVISED REGULATIONS 2014)

Marks: 70

Duration: 180 mins.

### Long Answer Questions.

- 1) Classify antiarrhythmic agents. Explain the management of ventricular arrhythmias. (10)
- 2) Explain the treatment of COPD based on GOLD guidelines. (10)
- 3) Classify hypothyroidism. Explain the treatment and complications of hypothyroidism. (10)

### 4. Short Answer Questions.

- 4A) Justify the role of bisphosphonates and estrogen in the management of osteoporosis. (5)
- 4B) Discuss the treatment of acute severe asthma. (5)
- 4C) Classify complications of DM. Explain any one in detail. (5)
- 4D) Explain the significance of diuretics and digoxin in the management of Heart failure. (5)
- 4E) Discuss the prescribing guidelines of pediatric population. (5)
- 4F) Explain the importance of essential drug list and standard treatment guidelines in the promotion of rational drug use. (5)

### 5. Give reasons for the following.

- 5A) ACE inhibitors are a mainstay class for treating heart failure. (2)
- 5B) Drug induced lung disorders can be managed by non-pharmacological treatments. (2)
- 5C) Corticosteroids are preventers in the management of asthma. (2)
- 5D) Diabetic ketoacidosis can be managed only by insulin therapy. (2)
- 5E) Progesterin in Oral Contraceptive Pills are beneficial. (2)

-----End-----