

**MANIPAL UNIVERSITY****SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017****SUBJECT: PPR 2.6T: PHARMACOTHERAPEUTICS – I  
(2014 REGULATION)**

Friday, May 05, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**

✍ **Long answer questions:**

1. Classify various types of angina. Explain the management of unstable angina.
2. Classify diabetes mellitus. Explain the management of Type 1 Diabetes Mellitus.
3. Describe hypothyroidism with its classification. Give the management of hypothyroidism with doses and ADRs.

(10 marks × 3 = 30 marks)

4. **Short answer questions:**

- 4A. Hypertensive crises is a challenging clinical condition. Explain its management.
- 4B. Outline briefly signs and symptoms of heart failure. Explain NYHA classification for assessment of heart failure patients.
- 4C. Mention the causative pathogens of bacterial conjunctivitis and list the various drug choices for the same.
- 4D. Explain the role of bronchodilators and corticosteroids in the management of COPD.
- 4E. Enumerate the various complications of diabetes mellitus and explain the management of any two.
- 4F. Explain the etio-pathogenesis of asthma.

(5 marks × 6 = 30 marks)

5. **Give reasons for the following:**

- 5A. Choice of drugs vary for compelling indication for hypertension management.
- 5B. Amiodorone is a broad spectrum drug.
- 5C. Antiplatelets and anti-coagulants are a mainstay to treat MI
- 5D. PAH can be treated with Phosphodiesterase V inhibitors
- 5E. Sodium alendronate should be taken in upright position.

(2 marks × 5 = 10 marks)



## MANIPAL UNIVERSITY

## SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017

## SUBJECT: PD 2.6: PHARMACOTHERAPEUTICS – I

Friday, May 05, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL questions.**

✍ **Long Essay:**

- 1A. Mention the types of hypothyroidism and write about the regulation control of thyroid hormone secretion.
- 1B. Define type 2 diabetes mellitus and explain the algorithm of treatment of type 2 diabetes mellitus.

(5+5 = 10 marks)

2. Define and enumerate drug induced pulmonary disorders with suitable examples and explain in detail drug induced air flow obstruction.

(10 marks)

- 3A. Classify dyslipidemia and enumerate its risk factors.

- 3B. Explain the role of HMG CoA reductase inhibitors, cholesterol absorption inhibitors and Niacin in the management of dyslipidemia.

(4+6 = 10 marks)

4. **Short Essay:**

- 4A. Explain briefly the prescribing guidelines in pregnancy.
- 4B. Explain the management of stable angina.
- 4C. Explain the role of diuretics and digoxin in the management of heart failure.
- 4D. Discuss the role of pharmacists in rational drug use.
- 4E. Explain the dosing regimen and side effects of oral contraceptives.
- 4F. Explain the role of carbonic anhydrase inhibitors, prostaglandins and prostamides in the management of glaucoma.

(5 marks × 6 = 30 marks)

5. **Short answers:**

- 5A. Write about lung flow tests.
- 5B. Enlist the factors influencing the dosage adjustment in geriatrics.
- 5C. Explain the role of Class II antiarrhythmics.
- 5D. Enlist the adverse events associated with oral corticosteroids.
- 5E. Mention the dose and adverse effects of Thioureas.

(2 marks × 5 = 10 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017**  
**SUBJECT: PPR 2.1T: PATHOPHYSIOLOGY**  
**(2014 REGULATION)**

Monday, May 08, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

**✍ Answer ALL questions.**

**✍ Long answer questions:**

1. Discuss the pathophysiology of acute inflammation.
2. Discuss the etiology and pathogenesis of cancer.
3. Discuss etiopathophysiology of hypertension.

(10 marks × 3 = 30 marks)

**4. Short answer questions:**

- 4A. Describe the signs and symptoms of acute renal failure.
- 4B. Explain the functioning of cell-mediated immunity with an illustration
- 4C. Explain the pathophysiology of schizophrenia.
- 4D. Discuss the pathophysiology of alcoholic liver disease.
- 4E. Classify different types of shock and explain any one in detail.
- 4F. Discuss clinical presentation and diagnostic criteria for tuberculosis.

(5 marks × 6 = 30 marks)

**5. Give reasons for the following:**

- 5A. Ejection fraction is reduced (<40%) in systolic heart failure.
- 5B. Uncontrolled diabetes may delay wound healing.
- 5C. Anemia is common in advanced stages of chronic renal failure.
- 5D. Nonsteroidal anti-inflammatory drugs (NSAIDs) may induce or worsen peptic ulcer disease.
- 5E. Rickettsia is associated with vitamin D deficiency.

(2 marks × 5 = 10 marks)



## MANIPAL UNIVERSITY

### SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017

#### SUBJECT: PBT 2.2T: PHARMACEUTICAL MICROBIOLOGY (2014 REGULATION)

Wednesday, May 10, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL questions.**

✍ **Long answer questions:**

1. Draw a neat labelled diagram of normal bacterial growth curve and discuss the various phases.
2. Draw a neat labelled diagram of laboratory autoclave and describe its design and operation.
3. Define and classify immunity. Discuss in detail the first line of defence mechanisms.

(10 marks × 3 = 30 marks)

4. **Short answer questions:**

- 4A. Enlist and explain various types of sexual spores of fungi.
- 4B. Enlist the methods of cultivation of anaerobic bacteria. How do aerobic bacteria detoxify oxygen?
- 4C. Define disinfection and explain the properties of an ideal disinfectant.
- 4D. Explain the principle involved in Schick test and mention its application.
- 4E. Briefly outline the protocol to carry out microbiological assay of antibiotics by one level factorial method.
- 4F. Write the causative organism, mode of transmission, symptoms and treatment for malaria.

(5 marks × 6 = 30 marks)

5. **Give reasons for the following:**

- 5A. Resolving power of oil immersion objective is more than that of dry objective.
- 5B. Protoplast of Gram positive bacteria give Gram negative reaction.
- 5C. Autoclaving is not suitable for sterilisation of vaccines.
- 5D. *Pseudomonas aeruginosa* turns the colour of Simmons citrate agar from green to blue.
- 5E. In persons with cholera infection, rehydration is the first priority.

(2 marks × 5 = 10 marks)



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## MANIPAL UNIVERSITY

SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017

SUBJECT: PCO 2.3T: PHARMACOGNOSY AND PHYTOPHARMACEUTICALS  
(2014 REGULATION)

Friday, May 12, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ Answer ALL questions.

✍ Draw structures and diagrams wherever necessary.

✍ Long answer questions:

1. Give a detailed account of drying of medicinal plant material. Add a note on stabilization.
2. Describe the morphology, microscopy and powder microscopy of Coriander.
3. Discuss the chemistry, isolation and estimation of Carbohydrates.

(10 marks × 3 = 30 marks)

4. Short answer questions:

- 4A. How crude drugs are classified? Briefly discuss pharmacological classification
- 4B. Discuss various methods of pest control
- 4C. Give botanical source, uses and preparation of Jute
- 4D. Briefly explain the chemistry of Proteins
- 4E. Describe wool-fat under suitable Pharmacognostical scheme
- 4F. Describe the cultivation and collection practices adopted in Cardamom

(5 marks × 6 = 30 marks)

5. Give reasons for the following:

- 5A. 'Avicenna' is an important name in history of Pharmacognosy
- 5B. Admixture of worthless substances with crude drugs
- 5C. Sea weeds are extracted with dilute sodium carbonate in the first step of isolation of Alginate
- 5D. Certain cell inclusions are called as waste products
- 5E. Rise in acid value of fixed oils

(2 marks × 5 = 10 marks)



**MANIPAL UNIVERSITY****SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017****SUBJECT: PD 2.3: PHARMACOGNOSY AND PHYTOPHARMACEUTICALS**

Friday, May 12, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL questions.**

✍ **Draw structures and diagrams wherever necessary.**

✍ **Long Essays:**

1. Give a detailed methods of cultivation of crude drugs.
2. Describe the morphology, anatomy and powder microscopy of Podophyllum.
3. Explain Acacia and Honey under suitable Pharmacognostic scheme.

(10 marks × 3 = 30 marks)

4. **Short Essays:**

- 4A. Differentiate between Organised and Unorganised crude drugs
- 4B. Give the source, method of cultivation, collection, drying and storage of Senna
- 4C. Source, method of production, chemical constituents and uses of Shark liver oil
- 4D. Define and give the identification tests for Proteins
- 4E. Differentiate between TS, TLS and RLS of Quassia
- 4F. Write the source and active constituents and uses of Tobacco and Neem

(5 marks × 6 = 30 marks)

5. **Short answers:**

- 5A. Alphabetical classification of crude drugs
- 5B. Layering
- 5C. Old Indian system of medicine
- 5D. Air dry condition of crude drugs
- 5E. Differentiate between Volatile oils and Fixed oils

(2 marks × 5 = 10 marks)



**MANIPAL UNIVERSITY****SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017****SUBJECT: PHA 2.4T: PHARMACOLOGY – I  
(2014 REGULATION)**

Monday, May 15, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**

✍ **Draw a labeled diagram wherever necessary.**

✍ **Long Essays:**

1. Explain pharmacokinetics interaction of drugs. (10 marks)

2. Classify antiarrhythmic with examples. Explain the mechanisms of action of class 1 drugs. (2+8 = 10 marks)

3. Explain the synthesis, storage, transport and utilization of thyroid hormone. Indicate the sites of action of antithyroid drugs. (7+3 = 10 marks)

4. **Short Essays:**

4A. Explain the cholinergic transmission with diagram.

4B. Explain the nuclear receptor and its transduction pathway.

4C. Explain the mechanisms of tolerance.

4D. Explain the mechanisms of drugs affecting adrenergic transmission.

4E. Explain degradation pathway of L-dopa and drugs affecting it.

4F. Explain the mechanisms of action of antidepressant drugs.

(5 marks × 6 = 30 marks)

5. **Give reasons for the following:**

5A. Probenecid increases the duration of action of penicillin.

5B. Anticholinergic and adrenergic drugs are given as bronchodilators.

5C. Adrenaline is combined with local anesthetics

5D. Side effects of atypical antipsychotics are lesser than typical.

5E. SSRIs should not administered with MAO inhibitors.

(2 marks × 5 = 10 marks)



**SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2017**

**SUBJECT: PPR 2.5T: COMMUNITY PHARMACY  
(2014 REGULATION)**

Wednesday, May 17, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

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✍ **Answer ALL questions.**

✍ **Long answer questions:**

1. Discuss the selection of site, space and layout-design to start a community pharmacy.
2. Explain community pharmacist's role in the care for pediatric and geriatric patients.
3. Describe Pharmacist Workup of Drug Therapy (PWDP) for pharmaceutical care.

(10 marks × 3 = 30 marks)

4. **Short answer questions:**

- 4A. Explain briefly the pathophysiology and management of pain.
- 4B. Discuss the guidelines for rational use of OTC medications.
- 4C. Describe steps involved in patient counseling.
- 4D. Write the code of ethics for pharmacist.
- 4E. Explain the role of community pharmacist in maintenance of patient medication records.
- 4F. Describe the advantages of using computers in community pharmacy.

(5 marks × 6 = 30 marks)

5. **Give reason for the following:**

- 5A. Effective inventory control practices are essential to maximize the profit of pharmacy.
- 5B. Polypharmacy is generally not advisable in geriatric patients.
- 5C. Drug related problems can lead to ineffective pharmacotherapy.
- 5D. Co-administration of NSAID with warfarin is not preferred.
- 5E. Health screening service is an important activity of community pharmacist.

(2 marks × 5 = 10 marks)

