

MANIPAL UNIVERSITY

SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2014

SUBJECT: PD 2.1: PATHOPHYSIOLOGY

Monday, May 05, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Define congestive heart failure and explain its pathophysiology. (10 marks)
2. Discuss the etiology and pathogenesis of cancer. (10 marks)
- 3A. Explain the role of renin-angiotensin-aldosterone system in the pathophysiology of hypertension.
- 3B. Explain the differences between asthma and chronic obstructive pulmonary diseases. (5+5 = 10 marks)

✍ **Short Essays:**

- 4A. Enumerate the mechanism of reversible cell injury.
- 4B. Explain the mechanism of central and peripheral tolerance.
- 4C. Discuss the process of healing of large contaminated wound.
- 4D. Discuss the biological effects of radiation.
- 4E. Describe the clinical features of Parkinsonism.
- 4F. Explain the pathogenesis of HIV infection. (5 marks×6 = 30 marks)

✍ **Short Answers:**

- 5A. Enlist the systemic effects of inflammation.
- 5B. Enumerate the deficiency symptoms of vitamin A and D.
- 5C. Enlist any 2 criteria for major depressive disorder.
- 5D. Enlist various etiological factors for inflammatory bowel disease.
- 5E. Enlist the Clinical presentation of Urinary tract infection. (2 marks×5 = 10 marks)



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MANIPAL UNIVERSITY**SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2014****SUBJECT: PD 2.2: PHARMACEUTICAL MICROBIOLOGY**

Wednesday, May 07, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**✍ **Long Essays:**

1. Define staining and classify staining techniques. Briefly outline the principle and procedure for Gram's staining.
2. Discuss ethylene oxide sterilization as under:
Mode of action, factors influencing the activity, equipment design and operation.
3. Define and classify immunity. Discuss acquired immunity in detail with examples.

(10 marks×3 = 30 marks)

✍ **Short Essays:**

- 4A. Describe the general characteristics of Rickettsiae. Add a note on diseases caused by them.
- 4B. Enlist various methods for laboratory cultivation of animal viruses. Add a note on any one method.
- 4C. Enlist the methods for bacteriostatic evaluation of disinfectants and briefly outline the procedure for the determination of R.W.C.
- 4D. Write the procedure for Western blot technique.
- 4E. Describe the procedure to carry out culture sensitivity test by agar diffusion method.
- 4F. Write the causative microorganism, mode of transmission, important symptoms and treatment of tuberculosis.

(5 marks×6 = 30 marks)

✍ **Short Answers:**

- 5A. Bacteria serve as better models for the study of various aspects of cells. Justify
- 5B. Enlist various sexual and asexual fungal spores.
- 5C. Classify culture media based on physical form, with suitable examples.
- 5D. Add a note on streak plate as a method of isolation of pure cultures.
- 5E. Mention the causative microorganism and route of infection for syphilis and cholera.

(2 marks×5 = 10 marks)



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SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2014

SUBJECT: PD 2.4: PHARMACOLOGY – I

Monday, May 12, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions. Draw the neat, labeled diagram wherever necessary.**

✍ **Long Essays:**

1. Enumerate the routes of administration of drugs with one example each. Explain the advantages and disadvantages of any two routes of administration.
(6+4 = 10 marks)
2. Explain the processes of adrenergic transmission. List the drugs that modulate the adrenergic system.
(5+5 = 10 marks)
3. Classify the bronchodilators with examples. Discuss the mechanism of action and pharmacological actions of methylxanthines. Why is theophylline converted into aminophylline?
(3+3+3+1 = 10 marks)

✍ **Short Essays:**

4. Describe the mechanisms of action of:
 - 4A. Ethyl alcohol
 - 4B. Propranolol
 - 4C. Physostigmine
 - 4D. Calcium channel blockers
 - 4E. Benzodiazepines
 - 4F. d-Tubocurarine

(5 marks×6 = 30 marks)

✍ **Short Answers:**

5. Give reasons for the following:
 - 5A. Morphine is given in myocardial infarction
 - 5B. Anticholinesterases are administered in Myasthenia gravis
 - 5C. Adrenaline is combined with lignocaine for local anesthetic action
 - 5D. Phenytoin should not be given to pregnant women
 - 5E. L-dopa is combined with carbidopa

(2 marks×5 = 10 marks)



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SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2014

SUBJECT: PD 2.5: COMMUNITY PHARMACY

Wednesday, May 14, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ Answer ALL the questions.

✍ Long Essays:

1. Discuss the guidelines for rational use of antibiotics, injections and OTC medications.
2. Explain the content, design, layouts and advisory label of patient information leaflets.
3. Discuss the code of ethics for community pharmacist.

(10 marks×3 = 30 marks)

✍ Short Essays:

- 4A. Explain the factors contributing to medication non-adherence.
- 4B. Explain ABC method of inventory control.
- 4C. Explain the treatment and prevention of any two deficiency disorders.
- 4D. Describe the various steps in patient counseling process.
- 4E. Explain the clinical presentation and prevention of tuberculosis.
- 4F. Explain the roles and responsibilities of community pharmacist.

(5 marks×6 = 30 marks)

✍ Short Answers:

- 5A. Write the causative organism and prevention of gonorrhoea.
- 5B. Enumerate the advantages of health screening services.
- 5C. Give reasons for low inventory turnover.
- 5D. List out the various registers maintained in community pharmacy.
- 5E. Write the symptoms and treatment of viral conjunctivitis.

(2 marks×5 = 10 marks)



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SECOND YEAR PHARM D. DEGREE EXAMINATION – MAY 2014

SUBJECT: PD 2.6: PHARMACOTHERAPEUTICS – I

Friday, May 16, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ Answer ALL the questions.

HEALTH SCIENCES LIBRARY

✍ Long Essays:

1. Explain clinical presentation and the management algorithm in chronic asthma. (10 Marks)

- 2A. Explain the treatment algorithm for Ischemic Heart Disease (IHD).
- 2B. Discuss the role of beta blockers, nitrates and calcium channel blockers in the management of IHD. (4+6 = 10 marks)

- 3A. Explain the etio-pathophysiology of type 2 Diabetes Mellitus (DM).
- 3B. Explain the role of thiazolidinediones, alpha-glucosidase inhibitors in the management of type 2 DM. (5+5 = 10 marks)

✍ Short Essays:

- 4A. Explain the electrophysiology of heart and an ECG curve with a neat illustration.
- 4B. Define rational drug use and write briefly about essential drug concept.
- 4C. Classify glaucoma and explain the algorithm of treatment for primary angle closure glaucoma.
- 4D. Discuss the pharmacokinetics changes of drugs during pregnancy and lactation.
- 4E. Enumerate the risk factors for secondary dyslipidemia and explain the role of statins and fibrates in the management of dyslipidemia.
- 4F. Explain briefly about the mechanisms that affect the pulmonary vasculature with examples. (5 marks×6 = 30 marks)

✍ Short Answers:

- 5A. Enlist the agents and events triggering asthma.
- 5B. Mention the advantages and disadvantages of progestins in HRT.
- 5C. Write the schedule and adverse effects of oral contraceptives.
- 5D. Write the Young's and Clark's formula for calculating child dose.
- 5E. Mention the causes for secondary hypertension.

(2 marks×5 = 10 marks)

