

MANIPAL UNIVERSITY

SECOND YEAR PHARM D. DEGREE EXAMINATION – JULY 2010

SUBJECT: PD 2.1: PATHOPHYSIOLOGY

Thursday, July 15, 2010

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

☞ Answer ALL questions.

☞ Long Essay Questions:

1. Describe the vascular events of acute inflammation. (10 marks)
2. Define and classify Hypertension as per JNC VII guidelines. Explain role of renin-angiotensin-aldosterone system pathway in the pathophysiology of hypertension. (3+7 = 10 marks)
3. Describe the pathogenesis of acute renal failure and chronic renal failure. (5+5 = 10 marks)

☞ Short Essay Questions:

- 4A. Explain the pathogenesis of alcoholic liver disease.
- 4B. Explain the pathophysiology of schizophrenia.
- 4C. Explain the different diagnostic tests for cancers.
- 4D. Enumerate the mechanism of irreversible cell injury.
- 4E. Describe malarial life cycle and enumerate the clinical symptoms of malaria.
- 4F. Explain the mechanism of autoimmunity. (5×6 = 30 marks)

☞ Short Answer Questions:

- 5A. Differentiate between benign and malignant tumors.
- 5B. Explain the etiology for peptic ulcer disease.
- 5C. Enumerate four opportunistic infections of AIDS.
- 5D. Enlist various risk factors for stroke.
- 5E. Enumerate four symptoms of Parkinsonism. (2×5 = 10 marks)



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SECOND YEAR PHARM D. DEGREE EXAMINATION – JULY 2010

SUBJECT: PD 2.2: PHARMACEUTICAL MICROBIOLOGY

Saturday, July 17, 2010

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

Answer ALL questions.**Long Essay Questions:**

- 1A. Describe the nutritional requirements and mention the physical parameters required for laboratory cultivation of bacteria.
- 1B. Discuss sterilization by Gamma radiations as under:
Source, sterilization dose, mechanism of action and applications.
- 1C. Explain the structure, classification and functions of Immunoglobulins.

(10×3 = 30 marks)

Short Essay Questions:

- 2A. Describe the method of cultivation of viruses by tissue culture technique and enlist the other methods of cultivation.
- 2B. Define staining and classify staining techniques. Briefly outline the procedure in simple staining.
- 2C. Explain the role of phenol as disinfectant with respect to mechanism of action, specific example and applications.
- 2D. Write the principle and procedure of ELISA.
- 2E. Explain the principle of one level factorial assay of antibiotics.
- 2F. Explain the pathogenesis of cholera.

(5×6 = 30 marks)

Short Answer Questions.

- 3A. Name any two scientists and their major contribution to the field of microbiology.
- 3B. Enlist the different sexual spores formed by fungi.
- 3C. Virus cannot be cultivated in nutrient broth. Why? Suggest a method of cultivation.
- 3D. Elaborate IMViC and mention the specific tests for *E.coli*.
- 3E. Differentiate Western blot from Southern blot.

(2×5 = 10 marks)



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SECOND YEAR PHARM D. DEGREE EXAMINATION – JULY 2010

SUBJECT: PD 2.3: PHARMACOGNOSY AND PHYTOPHARMACEUTICALS

Tuesday, July 20, 2010

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ Answer ALL questions.

✍ Draw structures and neat labeled diagrams wherever necessary.

✍ Long Essay Questions:

- 1A. What is Honey? Describe the method of preparation, standards, chemical constituents, uses and purity tests.
- 1B. Give a detailed account of Cell wall materials and Cell inclusions with suitable tests.
- 1C. What are the purposes of drying? Discuss the various methods of drying of medicinal plant materials. Suggest the suitable methods for the drying of different plant parts.

(10×3 = 30 marks)

✍ Short Essay Questions:

- 2A. Give the source, method of production, constituents, tests and uses of Castor oil and Chaulmoogra oil.
- 2B. Structure of Ephedrine, Coriandrol, Gingerol, Sennoside A and Quassin.
- 2C. Describe the method of cultivation, collection and preparation of Cardamom.
- 2D. Describe the crude drugs based on their pharmacological action with examples.
- 2E. Give the method of collection and chemical tests for Acacia.
- 2F. Describe the Neem as repellent, nematicide and antimicrobial.

(5×6 = 30 marks)

✍ Short Answer Questions.

- 3A. Definition and significance of Acid value, Iodine value, Saponification value and Acetyl value.
- 3B. Preparation of gelatin from skin, tendons and ligaments.
- 3C. Flavonoids.
- 3D. Addition of worthless heavy materials.
- 3E. Surgical fibres.

(2×5 = 10 marks)



MANIPAL UNIVERSITY
SECOND YEAR PHARM D. DEGREE EXAMINATION – JULY 2010
SUBJECT: PD 2.4: PHARMACOLOGY – I

Thursday, July 22, 2010

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL questions.**

✍ **Long Essay Questions:**

1. Describe the Pharmacological actions of adrenaline. (10 marks)

2. Classify oral hypoglycemics with example. Discuss the mechanisms of action of biguanides. Write briefly on thiazolidinediones. (2+5+3 = 10 marks)

3. Describe the mechanisms of action of antiepileptic drugs. Mention the first line drugs for the treatment of generalized and partial seizures. (7+3 = 10 marks)

✍ **Short Essay Questions:**

- 4A. Write short note on drug-antagonism.
- 4B. With a neat diagram describe various mechanisms by which a drug is absorbed in the body.
- 4C. With a neat diagram illustrate the sites and mechanisms of action of anti-arrhythmic drugs.
- 4D. Describe the structure and signal transduction mechanism of nuclear-receptor.
- 4E. Explain various stages of anaesthesia.
- 4F. Describe the therapeutic uses of calcium channel blockers. (5×6 = 30 marks)

✍ **Short Answer Questions:**

- 5A. Give reasons why the anti-platelet dose of aspirin is much less than analgesic dose.
- 5B. How can the incidence of oropharyngeal candidiasis be minimized in patients who are prescribed with inhaled corticosteroids for the treatment of COPD.
- 5C. What is cheese reaction?
- 5D. Why is neostigmine preferred over phyostigmine in the treatment of myasthenia gravis and the reverse in the management of atropine poisoning?
- 5E. Mention the advantages of angiotensin receptor antagonists over ACE inhibitors. Give the reason. (2×5 = 10 marks)



