MANIKGAD - II: SUMMER - 2015 (Supplementary)
SUBJECT : PHARMACOLOGY I

Day : Saturday
Date : 04-07-2015

Time : 2·00 P.M. To 5-00 P.M.
Max. Marks : 70

**N.B.:**

1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of remaining questions attempt **ANY TWO** questions from each section.
2) Answers to both the sections should be written in the **SEPARATE** answer books.
3) Figures to the right indicate **FULL** marks.

## SECTION - I

**Q.1 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** Enlist the routes of administration.
- **ii)** Define Pharmacotherapeutics.
- **iii)** Define bioequivalence.
- **iv)** Define antagonism. Give examples.
- **v)** Define receptor with examples.
- **vi)** Define drug toxicity. Give examples.

**b)** Explain post-marketing surveillance in brief. Add a note on its significance. **[03]**

**Q.2** Define drug-drug interaction. Explain in detail the types of drug interactions. **[12]**

**Q.3 a)** Classify local anaesthetics. Explain the pharmacology and uses of lignocaine. **[07]**
**b)** Explain in detail the pharmacology of sulphonamides. **[05]**

**Q.4** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Mydriatics
- **b)** Pre-anesthetic medication.
- **c)** Types of oral contraceptives
- **d)** Anticholinesterase poisoning

## SECTION - II

**Q.5 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** Define mucolytics with examples.
- **ii)** Define sedatives with examples.
- **iii)** Enlist the uses of atropine.
- **iv)** Enlist the uses of valproic acid.
- **v)** Enlist the therapeutic uses of 5-HT antagonists.
- **vi)** Classify antihyperlipidemics.

**b)** Enlist the treatment measures for methanol poisoning. **[03]**

**Q.6** Classify antihypertensive drugs. Explain the pharmacology of ACE inhibitors. Add a note on how AT receptor antagonists are beneficial over ACE inhibitors. **[12]**

**Q.7 a)** Classify anti-asthmatic drugs. Explain the pharmacology of Leukotriene antagonists. **[07]**
**b)** Explain the role of nitrates in treatment of angina pectoris. **[05]**

**Q.8** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** PAF
- **b)** Nasal decongestants
- **c)** Benzodiazepines
- **d)** Cognition enhancers

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**MANIKGAD - II: SUMMER - 2015**
**SUBJECT : PATHOPHYSIOLOGY**

Day : Tuesday
Date : 07-04-2015

Time : 10:00 AM TO 1:00 P.M.
Max. Marks : 70

**N.B.:**

1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of remaining questions attempt **ANY TWO** questions from each section.
2) Answers to both the sections should be written in the **SEPARATE** answer books.
3) Figures to the right indicate **FULL** marks.

## SECTION - I

**Q.1 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** What you mean by repair and regenerations of wound?
- **ii)** Enlist cranial signs of inflammation.
- **iii)** Enlist two examples of food allergy.
- **iv)** Risk factor for cancer.
- **v)** Define allografts and autografts.
- **vi)** Enlist few local factors influencing healing.

**b)** Write short note on Phagocytosis. **[03]**

**Q.2** Define inflammation and its sub-type. Explain pathological events of acute inflammation. **[12]**

**Q.3 a)** Explain in brief the mechanism of graft rejection. **[05]**
**b)** What are types of hypersensitive reactions? **[07]**

**Q.4** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Cell adaptation
- **b)** Abnormalities of lipoproteinaemia
- **c)** Histological diagnosis of malignancy
- **d)** Gangrene

## SECTION - II

**Q.5 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** Discuss the pathophysiology of Chronic Obstructive Pulmonary Disease.
- **ii)** Discuss pathophysiology of diabetes mellitus.
- **iii)** Discuss the complications of AIDS.
- **iv)** Write about acute and chronic renal failure.
- **v)** Discuss pulmonary and extra pulmonary tuberculosis.
- **vi)** Write about neurochemical basis of Parkinson's disease.

**b)** What are signs and symptoms of malaria? Discuss the life cycle of malarial parasite. **[03]**

**Q.6** Define and classify pneumonia. Discuss the pathogenesis of pneumonia. **[12]**

**Q.7 a)** Define ulcer. Discuss the pathogenesis of gastric ulceration. **[07]**
**b)** What is shock? Enlist different types of shock. Add a note on hemorrhagic shock. **[05]**

**Q.8** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Pathogenesis of Starvation
- **b)** Pathophysiology of congestive cardiac failure
- **c)** Mania
- **d)** Asthma
- **e)** Leprosy

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Second Year - Pharm D - 2015

MANIKGAD - II SUMMER - 2015

SUBJECT : PHARMACEUTICAL MICROBIOLOGY

Day : Thursday
Date : 09-04-2015

Time : 10:00AM TO 1:00 P.M.
Max. Marks : 70

**N.B.:**

1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of remaining questions attempt **ANY TWO** questions from each section.
2) Answers to both the sections should be written in the **SEPARATE** answer books.
3) Draw neat and labeled diagrams **WHEREVER** necessary.
4) Figures to the right indicate **FULL** marks.

## SECTION - I

**Q.1 a)** Attempt **ANY FOUR** of the following: **[08]**
- **i)** Classify Stains.
- **ii)** Give contributions of Paul Ehrlich.
- **iii)** List Non-Thermal Sterilization Methods.
- **iv)** How halogens disinfect?
- **v)** Differentiate between Flagella and Pili.

**b)** Draw a neat, labeled structure of *Aspergillus niger*. **[03]**

**Q.2** Draw and discuss the structure of bacterial cell. **[12]**

**Q.3 a)** How human viruses multiply? **[07]**
**b)** Describe sterility testing of i.v. saline solution as per I.P. **[05]**

**Q.4** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Bacteriological Culture Media
- **b)** Phenol Coefficient Method
- **c)** *Saccharomyces cerevisae*
- **d)** Rickettsial Diseases

## SECTION - II

**Q.5 a)** Attempt **ANY FOUR** of the following: **[08]**
- **i)** Define 'Virulence' and 'Vaccines'.
- **ii)** What is Cellular Immune Response?
- **iii)** Discuss properties of antigen.
- **iv)** Explain MIC.
- **v)** Justify use of HAT media in Hybridoma Technology.

**b)** What is 'Delayed Hypersensitivity'? **[03]**

**Q.6** Give an exhaustive account on Immunoglobulins. **[12]**

**Q.7 a)** Discuss Microbial Assay of Antibiotics. **[07]**
**b)** How vaccines are standardized? **[05]**

**Q.8** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Western Blot Technique
- **b)** Tuberculosis
- **c)** Immunization programme
- **d)** Phagocytosis

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MANIKGAD - II: SUMMER - 2015

SUBJECT : PHARMACOGNOSY & PHYTOPHARMACEUTICALS

Day : Saturday
Date : 11-04-2015

Time : 10:00 AM. TO 1:00 P.M.
Max. Marks : 70

**N.B.:**

1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of remaining questions attempt **ANY TWO** questions from each section.
2) Answers to both the sections should be written in the **SEPARATE** answer books.
3) Figures to the right indicate **FULL** marks.

## SECTION - I

**Q.1** a) Attempt **ANY FOUR** of the following: **[08]**
- i) What is biological control of pest?
- ii) Give adulterants of clove.
- iii) Write two examples of natural fibers.
- iv) Explain PUFA and MUFA also give examples.
- v) What are waxes? Give two examples.

b) Write effect of soil and soil fertility on plant growth. Add a note on types of soil. **[03]**

**Q.2** Write in detail pharmacognostic account of honey. **[12]**

**Q.3** a) Which are different methods of cultivation of crude drug? Explain with suitable example. **[07]**

b) Write in detail chemical classification of crude drug. **[05]**

**Q.4** Write short notes on **ANY THREE** of the following: **[12]**
- a) Leaf constants
- b) History of pharmacognosy
- c) Castor oil
- d) Arachis oil

## SECTION - II

**Q.5** a) Attempt **ANY FOUR** of the following: **[08]**
- i) Write biological source of Carrageenan.
- ii) Explain 'garbling' in processing of crude drug.
- iii) What are secondary metabolites?
- iv) Write biological source of Gum Ghati.
- v) Write biological source of Shark liver oil.

b) Write in detail scope of pharmacognosy. **[03]**

**Q.6** Discuss in detail factors affecting cultivation of medicinal plants. **[12]**

**Q.7** a) What are carbohydrates? Give classification, properties, chemistry of carbohydrates. **[07]**

b) What are lipids? Give chemistry occurrence, properties of lipids. **[05]**

**Q.8** Write short notes on **ANY THREE** of the following: **[12]**
- a) Wool fat
- b) Acacia
- c) Cell wall constituents and cell inclusion
- d) Storage of crude drug

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**MANIKGAD - II: SUMMER - 2015**
**SUBJECT : PHARMACOLOGY I**

Day : Wednesday
Date : 15-04-2015

Time : 10:00AM TO 1:00 P.M.
Max. Marks : 70

**N.B.:**
1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of remaining questions attempt **ANY TWO** questions from each section.
2) Answers to both the sections should be written in the **SEPARATE** answer books.
3) Figures to the right indicate **FULL** marks.

## SECTION - I

**Q.1 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** Enlist the scope of pharmacology.
- **ii)** Define pharmacodynamics.
- **iii)** Define chronic toxicity.
- **iv)** Define the terms potency and efficacy.
- **v)** Define antagonist with examples.
- **vi)** Name the phases of metabolism. Differentiate between the two.

**b)** Enlist the factors modifying drug effects. **[03]**

**Q.2** Define and classify parasympatholytics. Explain the pharmacology of atropine. **[12]**

**Q.3 a)** Classify sedatives and hypnotics. Differentiate between barbiturates and benzodiazepines. **[07]**

**b)** Explain the pharmacology of various types of oral contraceptives. **[05]**

**Q.4** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Miotics
- **b)** Myaesthenia gravis
- **c)** Anti-thyroid drugs
- **d)** Differentiate non-depolarising and depolarising neuromuscular blockers.

## SECTION - II

**Q.5 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** Define expectorants with example.
- **ii)** Define antipsychotics with examples.
- **iii)** Enlist the uses of β blockers.
- **iv)** Enlist the uses of selective COX-2inhibitors.
- **v)** Classify H1 antihistaminics.
- **vi)** Define arrhythmia. Enlist the types of arrhythmia.

**b)** Enlist the treatment measures for barbiturate poisoning. **[03]**

**Q.6** Classify anticonvulsants. Explain in detail the pharmacology of hydantoins. Add a note on therapy of status epilepticus. **[12]**

**Q.7 a)** Classify anti-asthmatic drugs. Explain the pharmacology of mast cell stabilizers. **[07]**

**b)** Explain the pharmacology, uses and adverse effects of fibrates. **[05]**

**Q.8** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Drug therapy of migraine
- **b)** Antitussives
- **c)** Levodopa
- **d)** Salicylates

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**MANIKGAD - II : SUMMER - 2015**
**SUBJECT: COMMUNITY PHARMACY**

Day: Friday
Date: 17-04-2015

Time: 10:00 AM. TO 1:00 P.M.
Max Marks.70

**N.B.**

1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of remaining answer any **TWO** questions from Section -**I** and any two questions from Section - **II**.
2) Answer to the each section should be in **SEPARATE** answer book.
3) Figures to the right indicate **FULL** marks.

## SECTION - I

**Q.1 a)** Answer any **FOUR** questions **(08)**
- **i)** Define terms community pharmacy and clinical pharmacy.
- **ii)** What do you mean by SALA medicines? Give two examples.
- **iii)** Enlist FDA licenses required to open retail pharmacy.
- **iv)** What do you mean by refill instruction for prescription?
- **v)** Write four benefits of endorsing Prescription by a registered pharmacist.

**b)** Enlist records required for good community practice. Explain any one record. **(03)**

**Q.2** Discuss various methods of inventory control in community pharmacy. **(12)**

**Q.3 a)** Discuss storage conditions with example of medicines under respective storage condition. **(06)**

**b)** Discuss importance of pictograms in patient counselling. **(06)**

**Q.4** Write short note on any **THREE**. **(12)**
- **a)** Advisory labels
- **b)** Self medication v/s OTC medication
- **c)** Role of pharmacist to improve medication adherence
- **d)** Blood pressure screening

## SECTION - II

**Q.5 a)** Answer any **FOUR** questions **(08)**
- **i)** Define contraceptives. Write patient cousnelling for barrier type of contraceptives.
- **ii)** Write non-pharmacological means for treatment of constipation.
- **iii)** Discuss precautions while taking OTC expectorant medicines.
- **iv)** Write infrastructural requirements for retail community pharmacy.
- **v)** Define essential drugs.

**b)** Discuss with a example dose adjustment in geriatric care. **(03)**

**Q.6** Discuss concept and various factors influencing pediatric care. **(12)**

**Q.7 a)** Discuss symptoms, modes of transmission of T.B. and DoTs treatment. **(06)**

**b)** Discuss ethics of pharmacy. **(06)**

**Q.8** Write short note on any **THREE**. **(12)**
- **a)** Typhoid fever
- **b)** Balances diet
- **c)** Prevention of AIDS
- **d)** Health Promotion

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**MANIKGAD- II: SUMMER - 2015**
**SUBJECT: PHARMACOTHERAPEUTICS - I**

Day: Monday
Date: 20-04-2015

Time: 10:00AM TO 1:00P.M.
Max. Marks: 70

**N.B.:**

1) **Q. No. 1** and **Q. No. 5** are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each section.
2) Figures to the **RIGHT** indicate full marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.
4) Draw neat labelled diagrams **WHEREVER** necessary.

## SECTION-I

**Q.1 A)** Answer any **FOUR** of the following: **(08)**

**i)** Explain an electrocardiogram with neat illustration.

**ii)** Write the age-wise classification of childhood.

**iii)** Name any two drugs that cause pulmonary disease and briefly mention the mechanism.

**iv)** Mention few adverse effects of calcium supplements.

**v)** Elaborate unstable angina.

**vi)** Enlist the etiologies of hyperlipidemia.

**B)** Explain the pharmacotherapy of open angle glaucoma. **(03)**

**Q.2** Discuss the pharmacotherapy of acute severe asthma. **(12)**

**Q.3 a)** Explain the complications of diabetes mellitus and management of any one. **(07)**

**b)** Describe the types of insulin preparations and it adverse events. **(05)**

**Q.4** Write short notes on Any **THREE** of the following: **(12)**

**a)** $\beta$-Blockers

**b)** Biguanides as hypoglycaemic agents

**c)** Digoxin

**d)** Diuretics in HTN

**P. T. O.**

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## SECTION-II

**Q.5 A)** Answer Any **FOUR** of the following: **(08)**

**i)** Enumerate the sign and symptoms of hypothyroidism.

**ii)** Explain in brief management of drug induced pulmonary disorders.

**iii)** Expand HRT and its general adverse effects.

**iv)** Enlist the organism responsible for bacterial conjunctivitis.

**v)** Enumerate the adverse effects of sulfonylurea.

**vi)** Explain two important parameters to be monitored for theophylline clearance.

**B)** Explain the cardiac function tests with its significance. **(03)**

**Q.6** Define Coronary Artery Disease (CAD), enlist the risk factors and write the treatment algorithm for CAD. **(12)**

**Q.7 a)** Explain the management of Osteoporosis. **(07)**

**b)** Mention the various OCP preparations and its general adverse effects. **(05)**

**Q.8** Write short notes on Any **THREE** of the following: **(12)**

**a)** Factors affecting Rational use of Drugs

**b)** Pregnancy categories of Drugs

**c)** Calcium Channel Blockers

**d)** Emphysema

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MANIKGAD - II: SUMMER - 2015 (Supplementary)
SUBJECT : PATHOPHYSIOLOGY

Day : Wednesday
Date : 01-07-2015

Time : 2.00 P.M. To 5.00 P.M.
Max. Marks : 70

**N.B.:**

1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of remaining questions attempt **ANY TWO** questions from each section.
2) Answers to both the sections should be written in the **SEPARATE** answer books.
3) Figures to the right indicate **FULL** marks.

## SECTION - I

**Q.1 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** What is wet gangrene? Give two examples.
- **ii)** What you mean by glycogen infiltration?
- **iii)** Enlist cranial signs of inflammation.
- **iv)** What you mean by autoimmunity?
- **v)** Explain metaplasia.
- **vi)** Define autografts and allografts.

**b)** Enumerate few glycogen storage disease. **[03]**

**Q.2** Write in detail an etiology and pathogenesis of cell injury. **[12]**

**Q.3 a)** Types of chronic inflammation. **[05]**
**b)** Explain process involved in normal wound healing and factors influencing healing. **[07]**

**Q.4** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Types of hypersensitive reactions
- **b)** Pathogenesis of cancer
- **c)** Cell adaptation
- **d)** Mechanism of graft rejection

## SECTION - II

**Q.5 a)** Answer **ANY FOUR** of the following: **[08]**
- **i)** Discuss the pathophysiology of angina.
- **ii)** Differentiate between arteriosclerosis and atherosclerosis.
- **iii)** Discuss the etiology of malaria.
- **iv)** Write about biological effect of radiations.
- **v)** What is obesity? Discuss various factors responsible for increasing obesity.
- **vi)** Write about amoebic dysentery.

**b)** Discuss the pathophysiology of depression. **[03]**

**Q.6** Define and classify pneumonia. Discuss the etiology, complications and different types of pneumonia. **[12]**

**Q.7 a)** Enlist the sexual transmitted disease. Discuss in detail HIV. **[07]**
**b)** What is asthma? Discuss the pathogenesis of asthma. **[05]**

**Q.8** Write short notes on **ANY THREE** of the following: **[12]**
- **a)** Psychosis
- **b)** Pathophysiology of hepatitis
- **c)** Tuberculosis
- **d)** Pathophysiology of chronic renal failure
- **e)** Types of diabetes

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**MANIKGAD – II : SUMMER 2015** (Supplementary)
**SUBJECT: PHARMACOTHERAPEUTICS – I**

Day: Tuesday
Date: 07-07-2015

Time: 2:00P.M.TO 5:00P.M.
Max Marks. 70

**N.B.**

1) Q. No. 1 and Q. no. 5 are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each section.
2) Figures to the right indicate **FULL** marks.
3) Answers to the both the section should be written in **SEPARATE** answer book.

## SECTION - I

**Q.1** **a)** Answer any **FOUR** of the following **(08)**
- **i)** Enlist the etiology of hyperlipidaemia
- **ii)** Differentiate between Primary & secondary hypertension.
- **iii)** Explain COPD & classify it.
- **iv)** What is PFT?
- **v)** Enlist the signs and symptoms of conjunctivitis
- **vi)** Mention goal of therapy for M. I.

**b)** Discuss role of diuretics & Beta blockers in hypertension. **(03)**

**Q.2** Discuss etiology & pharmacotherapy of Myocardial infraction **(12)**

**Q.3** **a)** Discuss pharmacotherapy of asthma. **(07)**
**b)** Electrophysiology of heart and Arrhythmias **(05)**

**Q.4** Write short notes on any **THREE**: **(12)**
- **a)** Statins in hyperlipidemia
- **b)** Glaucoma
- **c)** Nitrates in Angina
- **d)** ACE inhibitor induced cough

## SECTION - II

**Q.5** **a)** Answer any **FOUR** of the following **(08)**
- **i)** Enlist the Adverse drug reactions of sulfonyl ureas.
- **ii)** Enlist at least two limitations of Hormone Replacement Therapy
- **iii)** What are the types of combinations pills?
- **iv)** Co – relate the age and pharmacokinetic changes in pediatrics patients.
- **v)** Compare the effect of high lipid soluble drugs on adolescents and geriatric patients.
- **vi)** What is osteoporosis?

**b)** Explain the role of anti – thyroid drugs. **(03)**

**Q.6** Enlist different insulin preparations and discuss detail in pharmacotherapy of diabetes mellitus. **(12)**

**Q.7** **a)** Define rational use of drugs and explain the role of pharmacist. **(07)**
**b)** Give the example of drugs used in Hormone Replacement Therapy and explain their role. **(05)**

**Q.8** Write short notes on any **THREE**: **(12)**
- **a)** Treatment of osteoporosis
- **b)** Pharmaciodynamic changes in pregnancy
- **c)** Guideline for drug used in Pregnancy & lactation.
- **d)** Patient counseling in Diabetes Mellitus

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