

PURUS - V (SEMESTER PATTERN): APRIL / MAY - 2011
SUBJECT: PHARMACOGNOSY-II

Day : Wednesday
Date : 04.05.2011

Time: 10:00 A.M. TO 1:00 P.M.
Max. Marks: 80.

N.B.:

- 1) Q. No. 1 & 5 are **COMPULSORY**. Out of remaining questions solve **ANY TWO** questions from Section I and **ANY TWO** questions from Section -II
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to the two sections should be written in **SEPARATE** answer books.
- 4) Draw neat and labeled diagrams **WHEREVER** necessary.

SECTION-I

- Q.1** Attempt **ANY FIVE** of the following: [10]
- a) How do you detect the purity of Honey?
 - b) What is meant by esterification value?
 - c) Give biological source, active constituents and uses of Ashoka.
 - d) Differentiate between Phlobatannins and pyrogallotannins.
 - e) What is Goldbeaters skin? What is it used for?
 - f) List out adulterants of Guar Gum?
- Q.2** a) What are Lipids? How are they classified? Write a general account of fixed oil. Describe acetylation value and its significance. [08]
b) Define Agar. Describe its method of preparation, constituents and uses. [07]
- Q.3** a) Define Tannins? Give identification tests for tannins and discuss pharmacognosy of Black catechu. [08]
b) What are Carbohydrates? Give its classification. Discuss production of Maize starch. [07]
- Q.4** Write short notes on **ANY THREE** of the following: [15]
- a) Asbestos
 - b) Beeswax
 - c) T.S of Isabgol
 - d) Myrobalan

SECTION-II

- Q.5** Attempt **ANY FIVE** of the following: [10]
- a) Give biological source and chemical constituents of Picrorrhiza.
 - b) What is Indian Senna?
 - c) Give biological source, active constituents, and uses of Black Mustard
 - d) What is prepared digitalis?
 - e) What are Bitter glycosides?
 - f) What are Flavanol Glycosides? Give biological source of Silymarin
- Q.6** a) Define Glycosides. Outline its classification. Name different types of Glycosidal linkage with example for each. [08]
b) Give outline of drugs obtained from Mineral sources. What is Kaolin IP? [07]
- Q.7** a) What are Anthraquinone Glycosides? Describe TS. Senna. [08]
b) What is Digitalis? What is Digitalis IP? Why Digitalis is to be dried below 60°C? [07]
- Q.8** Write short notes on **ANY THREE** of the following: [15]
- a) T.S of Liquorice
 - b) Indian Sennil

PURUS - VI (SEMESTER PATTERN) : APRIL / MAY - 2011
SUBJECT: MEDICINAL CHEMISTRY - II

Day: Friday
Date: 22-04-2011

Time: 10:00 A.M. TO 1:00 P.M.
Max. Marks: 80

N.B.

- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of the remaining solve any **TWO** from **Section-I** and **ANY TWO** from **Section-II**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Both sections should be written in **SEPARATE** answer book.

SECTION - I

- Q.1 Outline synthesis of **ANY FIVE** of the following mentioning their categories. [10]
- i) Doxepine
 - ii) Barbituric acid
 - iii) Meprobamate
 - iv) Hydrochlorothiazide
 - v) Furosemide
 - vi) Aminophylline
 - vii) Chlorpromazine
- Q.2 a) Classify sedatives and hypnotics giving examples and structure of one compound from each class. [04]
- b) Write an exhaustive note on non-barbiturates. [05]
- c) Discuss SAR of barbiturates. [06]
- Q.3 a) Give an exhaustive account of sulfonamides as diuretics. [10]
- b) Explain mechanism of action of spironolactone and ethacrynic acid. [05]
- Q.4 Write short notes on **ANY THREE**. [15]
- a) Oxidative pathways.
 - b) Sulfate and Glycine conjugation.
 - c) SAR of phenothiazines.
 - d) Chemistry of tricyclic antidepressants.
 - e) Benzodiazepines as anxiolytics.

SECTION - II

- Q.5 Solve **ANY FIVE** of the following. [10]
- i) Classify general anesthetics.
 - ii) Differentiate between general and local anesthetics.
 - iii) What do you mean by drugs of abuse? Give examples.
 - iv) Write in short about the routes of administration for local anesthetics.
 - v) Write mode of action of Phensuximide.
 - vi) Write about side effects of analeptics.
 - vii) Write down of synthesis of Trimethadione.
- Q.6 a) Classify local anesthetics agents with examples. Explain their mode of action, SAR and uses. [10]
- b) Outline synthesis of Lidocaine and Dibucaine. [05]
- Q.7 a) What is epilepsy and what are its causes? Give a chemical classification of antiepileptics with one representative structure and explain chemistry of each class. [10]
- b) Describe chemistry and classification of hallucinogens with examples. [05]
- Q.8 Write short notes on **ANY THREE**. [15]
- a) Anorectics.
 - b) MAO inhibitors.
 - c) Historical perspective of local anaesthetics.
 - d) Stages of Anaesthesia.
 - e) Pre-anaesthetic medication.

PURUS -VI (SEMESTER PATTERN): APRIL / MAY- 2011
SUBJECT: PHARMACOLOGY - III

Day : Saturday
Date : 30-04-2011

Time: 10.00 A.M. To 1.00 P.M.
Max. Marks: 80.

N.B.:

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

SECTION - I

- Q.1** Answer **ANY FIVE** of the following: [10]
- a) Classify opioid receptors.
 - b) Define sedatives and hypnotics.
 - c) Name the therapeutic uses of phenytoin.
 - d) Give examples of intravenous anesthetics.
 - e) What is drug automism? Which drugs produce it?
 - f) Enumerate tricyclic antidepressants.
 - g) Define analeptics give examples.
- Q.2** a) Explain the actions, uses and advantages of Selective Serotonin Reuptake Inhibitors over traditional neuroleptics. [08]
b) Describe the pharmacological actions and uses of Carbamazepine. [07]
- Q.3** a) Describe the mechanism of action of lignocaine comment on preparation of lignocaine. [08]
b) Describe the pharmacological actions and adverse effects of pethidine. [07]
- Q.4** Write short notes on **ANY THREE** of the following: [15]
- a) Preanesthetic medications
 - b) Antimanic drugs
 - c) Cognition enhancers
 - d) L-dopa

SECTION - II

- Q.5** Answer **ANY FIVE** of the following: [10]
- a) Give examples of cholinesterase reactivators.
 - b) Define antidote give example.
 - c) Enlist symptoms of acute arsenic poisoning.
 - d) Give examples of uricosuric drugs.
 - e) Enlist specific Cox-2 inhibitors.
 - f) Why aspirin is contraindicated in children?
 - g) What are disadvantages of steroids as antiinflammatory drugs?
- Q.6** a) Describe the physiological role of prostaglandins and potential therapeutic uses. [08]
b) Describe the treatment of rheumatoid arthritis. [07]
- Q.7** a) Describe the signs, symptoms and treatment of mercury poisoning. [08]
b) Classify antipyretics. Describe the actions and toxicity of paracetamol. [07]
- Q.8** Write short notes on **ANY THREE** of the following: [15]
- a) Acute lead poisoning

PURUS-VII: (Semester Pattern) April-May-2011
SUBJECT: PHARMACEUTICAL ANALYSIS-IV

Day : *Saturday*
Date : *23-04-2011*

Time: *2:00 P.M. To 5:00 P.M.*
Max. Marks: 80.

N.B.:

- 1) **Q.NO.1 and Q.NO.5 are COMPULSORY.** Out of remaining questions attempt **ANY TWO** questions from Section-I and Section-II.
- 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** Attempt **ANY FIVE** of the following: [10]
- a) Write the different regions of EMR.
 - b) Write advantages and disadvantages of grating monochromator.
 - c) Name the different detectors used in UV spectroscopy.
 - d) Compare filter and interference monochromators.
 - e) Write advantages and disadvantages of a PMT.
 - f) What are the d and f transitions?
 - g) How quantitative analysis by UV can be done ?
- Q.2** a) Write the construction and working of a PMT. [07]
b) Draw a labeled diagram of a double beam UV and explain it's parts. [08]
- Q.3** a) Describe the different events when EMR strikes matter. [10]
b) Write a note on visual colorimetry. [05]
- Q.4** Write short notes on **ANY TWO** of the following: [15]
- a) Advantages of double beam design
 - b) PDA detector in UV
 - c) Beer Lambert Law

SECTION-II

- Q.5** Write short notes on **ANY FIVE** of the following: [10]
- a) Fluorimetry is more sensitive than UV
 - b) Different regions in IR
 - b) Nephelometry is used for dilute solutions
 - d) Turidimetry is used for concentrated solutions.
 - e) Fluorescence is instant while phosphorescence is delayed
 - f) Water causes problems in IR.
 - g) Role of attenuator in IR spectroscopy.
- Q.6** a) Explain fluorimetry giving principle instrumentation and applications. [10]
b) Write applications of IR. [05]
- Q.7** a) Explain napheloturbidimetry giving instrumentation and applications. [08]
b) Explain finger print region. [07]
- Q.8** Write short notes on **ANY TWO** of the following: [15]
- a) FT-IR
 - b) Applications of phosphorimetry
 - c) Detectors for IR