

Code No: R7501

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
III B.PHARMACY II SEMESTER EXAMINATIONS APRIL 2011
MEDICINAL CHEMISTRY-I**

Time: 3hours

Max. Marks: 80

**Answer any five questions
All questions carry equal marks**

1. Give the importance of following properties of the drug molecules in relation with biological activity
 - i) Lipophilicity
 - ii) Chelation
 - iii) Bioisosterism[16]
2. Write a note on drug conjugation pathways. [16]
3. a) Explain the activity profile of tricyclic antidepressants with specific examples.
b) Give the mode of action, synthesis and uses for the following compounds
 - i) Diazepam
 - ii) Haloperidol[10+6]
4. a) What is anaesthesia? List the differences between local anaesthesia and general anaesthesia
b) Give the synthesis, mode of action and therapeutic uses of [4+12]
 - i) Bupivacaine
 - ii) Benzocaine
 - iii) Halothane
5. a) Write a note on adrenergic receptors and highlight their physiological functions.
b) Explain the MOA and clinical importance of β_1 selective agonist. [8+8]
6. Outline the mode of action, synthesis and therapeutic utility of following
 - i) Carbachol
 - ii) Neostigmine
 - iii) Dicyclomine
 - iv) Succinyl choline.[16]
7. a) What are anti-adrenergic drugs and classify them with structural examples.
b) Enlist the clinical application of beta adrenergic antagonists. [16]
8. a) Give the preparation, mode of action and SAR of atropine.
b) Name one anti muscarinic used in the glaucoma treatment. Outline its synthesis and mode of action. [8+8]

R07

Code No: R7503

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
III B.PHARMACY II SEMESTER EXAMINATIONS APRIL 2011
PHARMACOLOGY-II**

Time: 3hours

Max. Marks: 80

**Answer any five questions
All questions carry equal marks**

1. a) Enlist the various types of shock. Write in detail about hypovolemic shock and its treatment.
b) Classify antihypertensives. Write the mechanism of action and adverse effects of digoxin. [8+8]
2. Discuss the different types of angina. Classify drugs used in the treatment of angina. Write their mechanism of action, therapeutic uses and adverse effects. [16]
3. Define arrhythmia. Discuss the detailed pharmacology of calcium channel blockers. [16]
4. a) Discuss in detail about oral anticoagulants.
b) Write in detail about folic acid and vitamin B₁₂. [8+8]
5. a) Classify diuretics and discuss the pharmacology of highly potent diuretics.
b) Discuss the role of water in body. [10+6]
6. Classify antihistaminics and write their detailed pharmacology. [16]
7. Discuss the pharmacology of eicosanoids. [16]
8. a) Discuss various types of asthma and classify antiasthmatic drugs. Discuss the pharmacology of mast cell stabilizers.
b) Write a short note on Respiratory stimulants. [10+6]

R07

Code No: R7505

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
III B.PHARMACY II SEMESTER EXAMINATIONS, APRIL 2011
PHARMACEUTICAL JURISPRUDENCE**

Time: 3hours

Max. Marks: 80

**Answer any five questions
All questions carry equal marks**

1. a) Discuss in detail about pharmaceutical legislation in India.
b) Describe the role of pharmacist in relation to his job. [16]
2. Write an essay on Pharmaceutical Education and Industry in India. [16]
3. a) Write the constitution and functions of Drug Technical Advisory Board.
b) Explain the qualifications and duties of government analyst. [16]
4. Explain in detail about the offences and penalties in Narcotic drugs and Psychotropic substances act, 1985. [16]
5. a) Define Medicinal preparation and Toilet preparation. Write the differences between bonded and non-bonded laboratories.
b) Write a note on Offences and penalties in Medicinal and Toilet preparation act 1955 [16]
6. a) Define Magic remedy. Explain about the classes of exempted advertisements.
b) Write a note on Drug Price Control Order 1995. [16]
7. a) Define License. Explain different types of licenses.
b) Give a note on AP State Shops & Establishments Act 1988 & Rules 1990. [16]
8. Write a note on
a) Indian Patents act 1970
b) Prevention of cruelty act 1960 [16]

R07

Code No: R7502

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

III B.PHARMACY II SEMESTER EXAMINATIONS

APRIL 2011

PHARMACEUTICAL TECHNOLOGY-II

Time: 3hours

Max. Marks: 80

**Answer any five questions
All questions carry equal marks**

1. a) Describe the operation of rotary die process for manufacturing of soft gelatin capsules
b) Write a note evaluation of hard gelatin capsules. [8+8]
2. a) Write about the different stages involved in the production of hard gelatin capsules.
b) Write note on polishing of hard gelatin capsules. [8+8]
3. Explain in detail about spray drying and spray congealing with neat schematic diagrams. [16]
4. a) Classify the tablets. Add the advantages of them
b) Describe the different granulation methods for preparation of tablets. [8+8]
5. Differentiate sugar coating and film coating processes. [16]
6. a) Discuss the construction and working of the rotary tablet compression machine with neat sketch.
b) Explain the following tableting problems
i) Capping and lamination ii) Weight variation [8+8]
7. a) Draw the layout for processing of parenterals.
b) Discuss the evaluation tests for parenterals. [8+8]
8. a) Discuss the properties of packaging materials used in pharmaceuticals
b) Add a note on temper proof packaging. [8+8]

Code No: R7504

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
III B.PHARMACY II SEMESTER EXAMINATIONS
APRIL 2011

CHEMISTRY OF NATURAL DRUGS

Time: 3hours

Max. Marks: 80

Answer any five questions
 All questions carry equal marks

- - -

1. Write note on the following
 - a) Test for alkaloids
 - b) Write structure and biological activity for the following
 - i) Noscapine
 - ii) Dextromethorphan
 - iii) Nalorphine
 - iv) Hyoscine

[16]

2. a) Give structure and mechanism action for Reserpine and Ajmaline.
 b) Write note on synthetic ergot derivatives.

[16]

3. How will you interconvert the following:
 - a) Citral to citronellol, geranial, nerol
 - b) Alfa-terpeniol to p-cymene, dipentene
 - c) Menthol to menthone

[16]

4. Synthesis the following by interconversion
 - a) Thymol from menthol
 - b) Alfa-terpineol from limonene
 - c) Camphor from camphoric acid
 - d) Isoborneol from camphor

[16]

5. Write note on the following
 - a) Stereochemistry of steroid nucleus with any example.
 - b) Distillation of steroids
 - c) Bile acids

[16]

6. Give any two structure and therapeutic uses of cardiac glycosides, Bafadienolides, synthetic Estrogens of oral contraceptives.

[16]

7. Give structure, biological action and therapeutic uses for the following
 - a) Thyroxine
 - b) Progesterone
 - c) Hexosterol
 - d) Insulin

[16]

8. Write note on the following
 - a) Metabolic effect of insulin
 - b) Spiranolactone
 - c) Ketosteroids
 - d) Testosterone

[16]
