Q1. Answer any two [4]

A. Enlist any four treatment options for methanol poisoning.
B. Differentiate between local and general anesthetics.
C. Give mechanism of action of fluoxetine.

Q2. Answer Any two [8]

A. Explain the stages of general anesthesia.
B. Define sedative & hypnotics with suitable example. Give mechanism of action and therapeutic uses of benzodiazepins.
C. Explain pharmacological action and adverse effect of morphine.

Q3. Write a short note on Any one [3]

A. Classify antidepressants. Give therapeutic uses of antidepressants.
B. Give mechanism of action and Pharmacology of Lithium.
Fr. Y. B. Pharm. (Semester -VII)
Periodic Theory Examination, 2016 (CBSGS)

Subject: P'ceutical Chemistry-III  
Time: - 12.00pm -1.00pm  
Date:19.9.16  
Total Marks: 15M

Q1. Answer the following (Any 3)
   a) Name the enzyme that is main target of cardiac glycosides.
   b) The reaction between methyl acetoacetate and o-nitrobenzaldehyde is first step of which drug.
   c) How is quinine and quinidine is related stereochemically?
   d) Name any drug that is used for treatment of breast cancer.
   3M

Q2. Give drug combination used for antiviral therapy along with structure.

   OR

   Enalapril is prodrug. What is active form of the drug? (Draw structures involved) Which is the enzyme that it inhibits?

   OR

   Q3. List agents (with structures) that block de novo synthesis of DNA and explain their role in treatment of cancer.

   OR

   With regard to SAR of thiazide diuretics, state which statement is whether true or false. Correct those which are false.

   a) Electron releasing group at 6th position is necessary.
   b) Saturation of double bond at 3-4 position produces diuretic activity 10 fold more active than unsaturated
   c) Substitution with lipophilic group at C-3, gives marked increase in potency.
   3M

Q4. Outline synthesis of (Any 2)
   1) Chlorombucil  2) Nifedipine  3) Furosemide  4) Amantadine
   3M

Q5. Draw structure of following antiarrhythmic agents and state to which class they belong
   1) 4-amino-N-(2-(diethylamino)ethyl) benzamide
   2) 1-(1-methylethylamino)-3-(1-naphthoxy)-propan-2-ol.

   OR

   Explain mechanism of action of Procarbazine.


   2M
Final Y. B. Pharm. CBSGS (Semester – VII)

Subject: Pharmaceutics IV
Marks: 15 M

Date: - 22/09/2016
Time: -12.00 -1.00p.m

Q. No. 1. a) Write the advantages of LAL test compared to the Shams test. (2M)
   OR
   Discuss various vehicles used in parenterals with their specifications.

b) Give Arrhenius equation. Write the steps for detection of shelf life based on Arrhenius equation. (3M)

Q. No. 2. a) Give an account on lyophilization. (2M)
   OR
   Enlist quality control tests for plastic. Give an account on Water vapour permeability test

b) Write a note on hydrolytic degradation pathway for drug with the methods to enhance stability by overcoming the same. (3M)

Q. No. 3. a) Write a note on ICH guidelines (5M)
   OR

   a) Discuss formulation consideration for small volume parenterals.
CBSGS
Final Y. B. Pharm. (Semester –VII)

Subject: Pharmacognosy & Phytochemistry II
Marks: 15 M

Date: - 23/09/2016
Time: -12.00 p.m. - 1.00 p.m.

Note - All questions are compulsory
Draw structures wherever necessary

Q. 1 Attempt Any Five

a) Give merits and Demerits of Natural Pesticides
   1 M

b) Write biological source and use of drug answering Van Erks test
   1 M

c) Give biological source of anthraquinone glycoside obtained from Animal source
   1 M

d) Give biological source of oil used as cathartic and give its major fatty acid
   1 M

e) Give biological source and use of an alkaloid derived from Histidine
   1 M

f) Discuss Life cycle of Ergot
   1 M

Q. 2 Discuss in detail the complete pharmacognosy of Aloes or Linseed
   4 M

Q. 3 Give biological source, chemical constituents, method of preparation and uses of Following Drugs

   a. Olive
   2 M

   b. Jojoba

Q. 4 Give a biogenesis pathway for Quinine alkaloids and write biological source, chemical Constituents and uses of Cinchona

Or Give biogenesis of Amygdaline and write note on Bitter almond

4 M
Final Y. B. Pharm. (Semester – VII) CBSGS
Periodic Theory Examination

Subject: Pharm Analysis III
Marks: 15
Date: 20-09-2016
Time: 12.00pm – 01.00pm

Questions

1. A) Define the following term [6 x 0.5 = 3 Marks]
   i) Capacity Factor
   ii) Tailing Factor
   iii) Isocratic Elution
   iv) Resolution
   v) 2-Dimensional TLC
   vi) Destructive Detecting Agents

2. A) Justify your answer with proper examples (Any TWO) [2 x 1 = 2 Marks]
   i) Analyte of interest in a Non-Polar compound. Select a suitable phase for separation and justify it.
   ii) UV-Visible detectors CAN'T be used for Absorption ration method in HPLC. Justify TRUE or FALSE.
   iii) KCl can be used as an agent for elution in Anion exchange chromatography in separation of proteins?

B) A chromatogram of a mixture A and B provided the following data on a 25 cm column, whose Non-retained time is 0.9 (min), Retention time of both A and B, is 5.20, 5.09 and Peak width 2.81 and 2.92. Calculate the Resolution factor of A & B and Number of theoretical plates [2 Marks]

2. Explain in detail [2 x 3 = 6 Marks]
   i) Different mode of Elution techniques used in HPLC, explain in detail Rheodyne injector with proper diagram? (OR)
   ii) Different types of detectors used in Gas Chromatography and explain in detail about detector used for Organic compounds?

   ii) Explain the Principle of Ion-Pair chromatography. Discuss any two application of the same? (OR)

   ii) A compound C₆H₃O₂N has the following spectral characteristics, deduce the structure and justify your answer:-

   IR 1748 cm⁻¹, 1235 cm⁻¹
   ¹H NMR 2.1 (δ, singlet 3H) 2.45 (δ, triplet 2H)
          2.2 (δ, singlet 6H) 4.05 (δ, triplet 2H)

3. Determine the λ max of the given compound [2 Marks]