Enrollment No:-_____ Exam Seat No:-_____

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4PS03PCH4 Subject Name: Pharmaceutical Chemistry-IV

Course Name: B.Pharm Date: 6/5/2015

Semester:III Marks: 70

Time:02:30 TO 05:30

Instructions:

1) Attempt all Questions of both sections in same answer book/Supplementary.
2) Use of Programmable calculator & any other electronic instrument prohibited.
3) Instructions written on main answer book are strictly to be obeyed.
4) Draw neat diagrams & figures (if necessary) at right places.
5) Assume suitable & perfect data if needed.

Q-1 **Answer the followings:**

a) Write the halogenation reaction of benzene. **2**

b) Define optical activity with one example. **2**

c) Define polynuclear aromatic compound with one example. **2**

d) What is geometrical isomerism? **1**

Q-2 **Give answer of followings**

a) Explain aromatic electrophilic substitution reaction with example. **5**

b) Explain the diazo coupling reaction. **5**

c) Explain Friedel crafts alkylation reaction. **4**

OR

Q-2 **Give answer of followings**

a) Give general methods of preparation of Naphthalene and Anthracene. **5**

b) Differentiate between enantiomers and diastereomers. **5**

c) Describe the stereochemistry of allene and biphenyl **4**

Q-3 Give answer of followings

a) Describe the resolution methods for the racemic mixtures. **5**

b) Write the various preparation methods of phenol. **5**

c) Write the preparation method and chemical properties of Furan. **4**

OR

Q-3 Give answer of followings

a) Write the preparation method and chemical properties of Pyrrole. **5**

b) Write the principles of green chemistry. **5**

c) Write the preparation and reaction of pyridine. **4**

SECTION II

Q-4 Explain followings in brief.

a) Write the example of enantiomers and diastereomers. **2**

b) Write the nitration reaction of benzene. **2**

c) Give one example of five membered heterocyclic compounds. **1**

d) Write the structure of quinoline and isoquinoline. **2**

Q-5 Give answer of followings

a) What are the applications of nano chemistry? **5**

b) Write the reactions of aldehydes and ketones. **5**

c) Compare the physical, chemical and biological properties of mesomers with example. **4**

OR

Q-5 Give answer of followings

a) Describe relative and absolute configuration. **5**

b) Describe conformational isomers of alkanes and their relative stability. **5**

c) Write the methods of preparation of carboxylic acids and its reaction. **4**

Q-6 Give answer of followings

a) Write the methods of preparation and reaction of Phenanthrene. **5**

b) Write the method of preparation and reaction of Imidazole. **5**

c) Write about the conformational isomers of cyclohexanes. **4**

OR

Q-6 Give answer of followings

a) Write the method of preparation and reaction of Indole. **5**

b) Write the method of preparation and reaction of Pyrimidine. **5**

c) Write about the applications of microwave synthesis. **4**