

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name: Pharmaceutical Chemistry-IV (Organic Chemistry-II)

Subject Code: 4PS03PCH4

Branch: B.Pharm

Semester:3

Date: 5/12/2015

Time: 2:30 To 5:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1	Attempt the following questions:	(14)
	a) Define racemic mixture.	1
	b) Give one example of meso compound.	1
	c) Define Chirality.	1
	d) Write the structure of Phenanthrene and Anthracene.	1
	e) Give one example of Geometrical isomerism.	1
	f) Write the name of any two ortho/para orienting groups.	1
	g) Define Enantiomers.	1
	h) Write two examples of polynuclear aromatic compound.	1
	i) Write two examples of electrophilic substitution reaction.	1
	j) Write one example of atropisomerism.	1
	k) Write the name of any two meta orienting groups.	1
	l) Write two examples of five membered heterocyclic compounds.	1
	m) Write the name of any two derivatives of carboxylic acids with structure.	1
	n) Define optical activity.	1

Attempt any four questions from Q-2 to Q-8

Q-2	Attempt all questions	(14)
A	Define and explain Huckel rule. Explain the aromatic property of Pyrrole.	7
B	What is electrophilic substitution reaction? Write the sulphonation reaction of benzene along with its detail mechanism.	7
Q-3	Attempt all questions	(14)
A	Write the Friedel-Crafts alkylation and Friedel-Crafts acylation reaction of benzene with its detail mechanism.	7
B	Write in detail about diazo coupling reaction.	7
Q-4	Attempt all questions	(14)
A	Describe about orientation in mono substituted benzene ring.	7



	B	Write in detail preparation and reaction of Naphthalene and Anthracene.	7
Q-5		Attempt all questions	(14)
	A	What is racemization? Explain the resolution methods of racemic mixture.	7
	B	Explain the stability of all conformational isomers of n-Butane with structure.	7
Q-6		Attempt all questions	(14)
	A	Write various methods of preparation and chemical properties of Pyridine.	7
	B	Write the common methods of preparation of Aldehydes and ketones.	7
Q-7		Attempt all questions	(14)
	A	Write various preparation methods of Pyrrole and Furan.	7
	B	Write the principles of green chemistry.	7
Q-8		Attempt all questions	(14)
	A	Write various methods of preparation and chemical properties of Phenol.	7
	B	Write the methods of preparation of all the derivatives of carboxylic acids.	7

