

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharmacy Sem-V Examination June 2011

Subject code: 250004

Subject Name: Pharmaceutical Chemistry-VI (Medicinal)

Date: 24/06/11

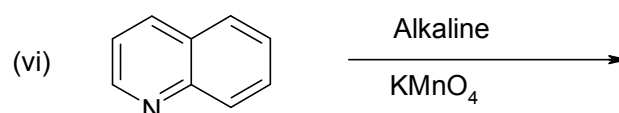
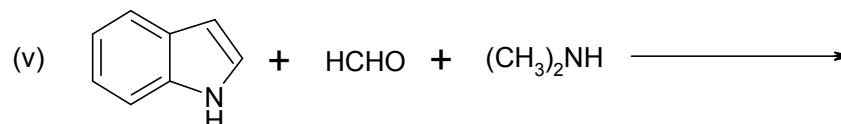
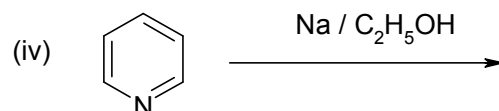
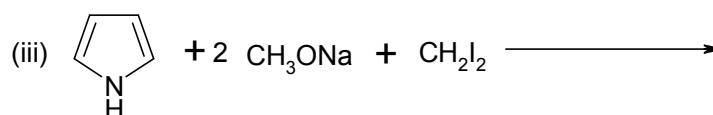
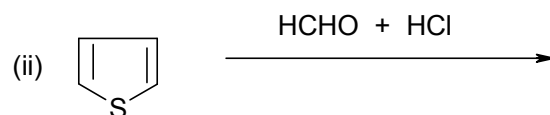
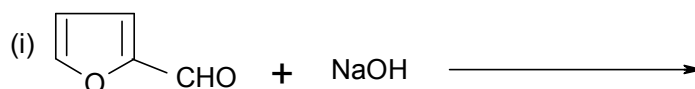
Total Marks: 80

Time: 10:30 am to 1:30pm

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Enumerate the physicochemical properties affecting biological activity. Explain Solubility and Hydrogen bonding properties in detail. **08**
- (b) What is Bioisosterism ? Explain in brief with examples. **04**
- (c) How stereochemistry affects biological action of drugs. Draw structure of one drug each having geometric isomerism and optical isomerism. **04**
- Q.2** (a) Complete the following reactions : **09**



	(b) Why pyrrole is more basic than furan ? Explain	03
	(c) Give one method of preparation of (i) Quinoline (ii) Indole	04
Q.3	(a) Explain the following terms with examples : (i) Prokinetic agents (ii) Carminatives (iii) Proton pump inhibitors (iv) Laxatives	12
	(b) What are eicosanoids ? Write in brief about eicosanoid biosynthesis.	04
Q.4	(a) What are antihistaminics ? How they act ? Classify them with examples. Give SAR of antihistaminics.	06
	(b) Give IUPAC name and synthesis of the following compounds : (i) Cetrizine (ii) Promethazine (iii) Chlorcyclizine (iv) Ranitidine (v) Diphenhydramine	10
Q.5	(a) Write short notes on the followings : (i) Decongestants (ii) Antiasthmatics (iii) SAR of H ₂ receptor blockers (iv) Enzymes	12
	(b) How surface activity and protein binding affects biological activity of drugs.	04
Q. 6	(a) Write short notes on the followings : (i) Diagnostic agents (ii) Mucolytics (iii) Local colorectal preparations	12
	(b) Give chemical properties of pyrrole.	04
Q.7	(a) What are antacids ? Give their mechanism of action and ideal properties.	06
	(b) Write the name of any one drug having following nucleus : (i) Imidazole (ii) Furan (iii) Thiazole (iv) Pyridine (v) Pyrimidine	05
	(c) Write the structure of any one drug from the following categories : (i) Respiratory stimulants (ii) Expectorants (ii) Antidiarrheals (iv) Antispasmodic (v) Antiemetic	05
