

Total No. of Questions : 6]

SEAT No. :

P3145

[Total No. of Pages : 2

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F.Y. B. Pharmacy (Semester - II)

PHARMACEUTICAL ORGANIC CHEMISTRY - II

(2013 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Answers to the two sections should be written in separate books.
- 3) Figures to the right indicate full marks.

SECTION - I

Q1) What are alcohols? Classify with suitable examples. Write any three methods of preparation and three reactions of alcohols. **[10]**

OR

Explain the terms 1°, 2° and 3° amines with suitable example and how will you distinguish between them? Give any three methods of preparations and reactions of amines with suitable examples.

Q2) Answer the following (Any 5) : **[15]**

- a) 2, 4, 6 trimethylaniline is more basic than Aniline. Give reasons.
- b) Give reason: phenols are more acidic than alcohols.
- c) What are hydrazones how are they prepared.
- d) Give any three methods of preparation of sulphonic acids.
- e) Draw structures for the following IUPAC names 1,1 dimethylpropanol, 2-butanone and 4-methyl-3-penten-2-one.
- f) How will you differentiate between phenol and ethanol?
- g) What are enamines? Explain preparation of enamines.

Q3) Write short note on (Any 2) : **[10]**

- a) Acidity of phenols
- b) Knoevenagel reaction

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- c) Two methods of preparation of aldehydes with reaction mechanism.
- d) Aldol condensation

SECTION - II

Q4) Define and explain SN. Comment on nucleophiles and leaving groups in SN. Give any three methods of preparation and any three reactions of alkyl halides. **[10]**

OR

Explain reaction, mechanism, kinetics and stereochemistry of SN¹.

Q5) Answer the following (Any 5) : **[15]**

- a) Carbonation of Grignard reagents.
- b) Comment on SN².
- c) Explain Michael addition.
- d) Define and enlist acid derivatives. Give preparation of acid chlorides from acids.
- e) Define isocyanides with examples. Give any two structures of isocyanides.
- f) Discuss structure and nomenclature of carboxylic acids.
- g) Give any two reactions of preparation of cyanides.

Q6) Write short note on (Any 2) : **[10]**

- a) Factors affecting Nucleophilic substitution reactions.
- b) Discuss in detail HVZ reaction.
- c) Ammonolysis of esters.
- d) Preparation and use of acetoacetic ester.

