

FACULTY OF PHARMACY**B. Pharmacy II Semester (PCI) (Suppl.) Examination, February 2019****Subject: Pharmaceutical Organic Chemistry – I****Time: 3 Hours****Max. Marks: 75****Note: Answer all questions from Part- A, Any two questions from Part – B and Any seven questions from Part – C.****PART – A (10 x 2 = 20 Marks)****Answer ALL questions. All questions carry equal marks.**

1. Define the following terms with examples.
 - a) Aromatic compounds
 - b) Functional group
2. Write the common name and IUPAC name for the following structures.
 - a) $\text{H}_3\text{C} - \text{CH}_2 - \underset{\text{CH}_3}{\text{CH}} - \text{CHO}$
 - b) $\text{H}_3\text{C} - \text{CH}_2 - \text{O} - \text{CH}_2 - \text{CH}_3$
3. Give an example for a cis and trans isomer.
4. Write the structures and uses of any two carboxylic acid compounds.
5. Classify alcohols with relevant examples.
6. Explain the significance of Tollen's test.
7. Write the structure and uses of acetone and hexamine.
8. Write the structure uses of benzoic acid and acetyl salicylic acid.
9. What is an amine? Give structures and uses of any two amines.
- 10 Write the structures and uses of ethyl alcohol and glycerol.

PART – B (2 x 10 = 20 Marks)**Answer any TWO questions. All questions carry equal marks.**

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| 11 Define 'isomerism'. Explain various types of structural isomerism with relevant examples. | 10 |
| 12 Differentiate between SN^1 and SN^2 reactions and discuss their mechanisms with examples. | 10 |
| 13 Explain the mechanism involved in aldol condensation and mention about crossed-aldol condensation. | 10 |

PART – C (7x 5 = 35 Marks)

Answer any SEVEN questions. All questions carry equal marks.

- 14 Explain the IUPAC rules for alkenes with suitable examples.
- 15 Explain the 1,2 / 1,4-addition reactions of alkadienes.
- 16 Write any two methods for synthesis of alkyl halides with suitable examples.
- 17 How do you distinguish among primary, secondary and tertiary alcohols based on chemical reactions?
- 18 Explain the mechanism involved in nucleophilic addition reactions of carbonyl compounds. Give any two examples.
- 19 Write any two qualitative tests of carbonyls.
- 20 Write the preparation of esters and amides with suitable examples.
- 21 Explain the Hinsberg method of separation of amines.
- 22 Explain in detail about stability of conjugated dienes.
