[Total No. of Questions - 3] [Total No. of Printed Pages - 2] (2125)

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# B. Pharmacy 1st Semester Examination Pharmaceutical Organic Chemistry (NS) BP-112

Time: 3 Hours Max. Marks: 70

The candidates shall limit their answers precisely within the answerbook (40 pages) issued to them and no supplementary/continuation sheet will be issued.

**Note:** The candidates are required to attempt any two questions from section A, any eight from section B, section C will be compulsory and students have to answer all questions from section C.

# **SECTION - A**

- Attempt any two:
  - (a) Discuss stability, generation and reactions of carbocations. (10)
  - (b) Discuss mechanisms with proof for SN1 and SN2 reactions. (10)
  - (c) Write chemistry, properties and reactions of aldehyde and ketones. (10)

# **SECTION - B**

- 2. Write on following with examples: (any eight)
  - (a) Resonance
  - (b) Hofmann rearrangement
  - (c) Reactions of amines

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- (d) Halogenation of Alkane
- (e) SP3 hybridization
- (f) Friedel craft alkylation
- (g) Saytzeff rule
- (h) Reactions of phenols
- (i) Acidity of carboxyllic acids
- (j) Preparations and reactions of esters. (5×8=40)

# SECTION - C

- 3. Comment on followings:
  - (a) Aryl halide is less reactive than alkyl halide.
  - (b) Substitution of methyl group in aromatic amine increases basicity while nitro group decreases basicity.
  - (c) NH<sub>3</sub> having more dipole moment than NF<sub>3</sub>.
  - (d) Phenol is more acidic than alcohol.
  - (e) Benzene is aromatic. (2×5=10)