Roll No…….. **Total No. of Printed Pages: [1]**
Total No. of Questions: [12]

Pharm.D (Year –1st)
PHARMACEUTICAL ORGANIC CHEMISTRY
Subject Code: PDBP104
Paper ID: 17180104

Time: 03 Hours **Maximum Marks: 70**

Instruction for candidates:

1. Section A contains SEVEN questions carrying TWO marks each and student has to attempt any FIVE questions.
2. Section B contains EIGHT questions carrying FIVE marks each and student has to attempt any SIX questions.
3. Section C contains THREE questions carrying FIFTEEN marks each and student has to attempt any TWO questions.

Section – A **(2 marks each)**

Q1. a) Define Protic and Aprotic solvent.
b) Draw the structure of Toluene and Salicylic acid.
c) Write difference between cyclic and chain compound with example.
d) Give the example of Ortho and Para aromatic compound.
e) Write Cannizzaro reaction.
f) Draw the structure of Lactic acid & Citric acid.
g) Define Resonance.

Section – B **(5 marks each)**

Q2. Define Isomerism and explain the isomerization of Phenol.
Q3. Explain Bayer strain theory.
Q4. Explain in detail about SN_1 & SN_2 Reaction.
Q5. Explain in detail about E_1 & E_2 Reaction.
Q6. Explain mechanism of peroxide initiated addition of hydrogen bromide.
Q7. Write a note on free radical halogenations of alkenes
Q8. Explain the basicity of amines.
Q9. Explain nucleophilic assistance by the solvents.

Section – C **(15 marks each)**

Q10. Explain the mechanism and reaction involved in: **(5 marks each)**
a) Sandmeyer's reaction
b) Kolbe reaction
c) Reimer tieman's reactions.

Q11. a) Explain Oxidation reduction reaction. **(7+8)**
b) Write an note on Markownikoff's rule and peroxide effect

Q12. Explain the mechanism of Aldol Condensation, benzoin condensation & perkin condensation. **(5 Marks Each)**