Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 13

B.Pharma (2017 Batch) (Sem.–3)

PHARMACEUTICAL ORGANIC CHEMISTRY-II

Subject Code : BP-301T

Paper ID : [75105]

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**
3. **SECTION-C contains NINE questions carrying FIVE marks each and students have to attempt any SEVEN questions.**

SECTION-A

1. Answer briefly :

a) Give one synthetic evidence in support of structure of benzene.

b) Draw the structure and give one synthetic application of benzene diazonium chloride.

c) Why *p*-nitrophenol is a stronger acid than phenol?

d) Why p-hydroxy benzoic acid is weaker than benzoic acid itself?

e) What is oxidative rancidification of oil and fats?

f) What happens when anthracene is treated with sodium and ethyl alcohol?

g) Why aromatic amines are less basic than aliphatic amine?

h) Explain why cyclobutane is more stable than cyclopropane.

i) What is mixed acid?

j) What happens when phenol is treated with neutral $FeCl_3$?

SECTION-B

2. Discuss in detail various evidences to derive the structure of benzene.

3. Give synthesis of diazonium salt and describe synthetic uses of aryl diazonium salt.

4. Give detailed account of different analytical constants and their significance in the analysis of fats and oils.

SECTION-C

5. Explain mechanism of sulphonation in benzene. Comment on the same as electrophile in this reaction.

6. Discuss meta direction effects of-NO_2 group at nitrobenzene in electrophilic substitutions on its aromatic ring.

7. Compare the basicity of 4-nitro aniline with 4-methyl aniline.

8. Compare the stability of cyclobutane with cyclohexane using Bayer's strain theory.

9. Explain electrophilic substitution of Phenanthrene.

10. Explain opening of cyclopropane ring using Caulson and Moffitt's modification.

11. What is Reichert Meissi value? How is it calculated? Discuss its significance.

12. Discuss Sachse Mohr's theory to explain the concept of strainless ring.

13. Discuss electrophilic substitution of anthracene with one example.