

Name:
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Theory Examination, December 2021

Course: Pharmaceutical Organic Chemistry-II

Semester: III

Program: B.Pharm

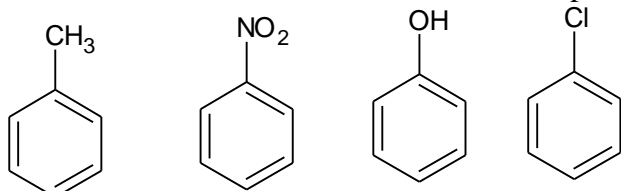
Course Code: BP301T

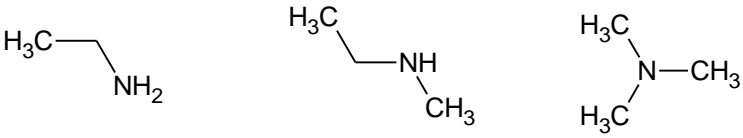
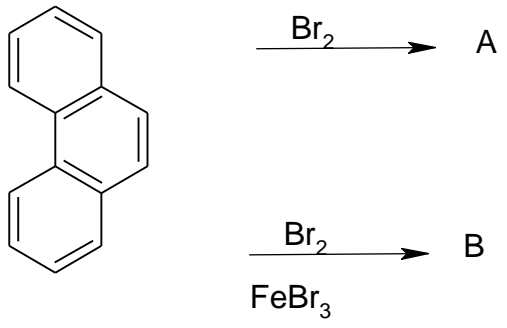
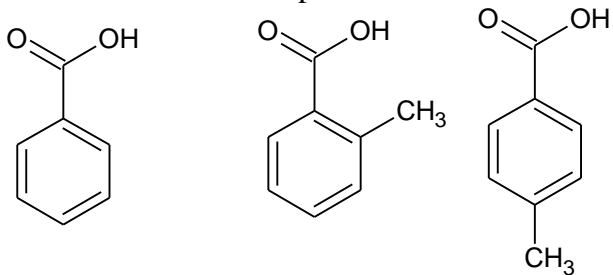
Instructions: Read the Question Paper Carefully.

Time 03 hrs.

Max. Marks: 75

SECTION A

S. No.	CO	Objective type Questions (20X1)	Marks
Q1			20
1	CO1	Carbocation rearrangement is possible in Friedel Craft acylation. True or False?	1
2	CO1	Name a neutral electrophile.	1
3	CO2	Which is more basic nitroaniline or aniline?	1
4	CO5	If methylcyclopropane reacts with HBr the product is.....	1
5	CO2	Reaction of benzene with conc. HNO ₃ in presence of Sulphuric acid followed by reaction with ethyl chloride in presence of Lewis acid will give: a) No product b) Meta ethylnitrobenzene c) Both ortho and para ethyl nitro benzene d) Only para ethyl nitrobenzene	1
6	CO5	Which is more stable, cyclopropane or cyclopentane?	1
7	CO4	Naphthalene on reductive ozonolysis gives.....	1
8	CO4	In Haworth's synthesis of naphthalene, following catalysts are used a) AlCl ₃ b) Zn-Hg/ HCl c) Conc. H ₂ SO ₄ d) All of the above	1
9	CO3	Name a hydroxyl fatty acid.	1
10	CO1	Select the most reactive molecule for Electrophilic substitution reaction 	1
11	CO3	Select the cyclic fatty acid a) Chaulmoogric acid b) lactobacillic acid c) Both of the above d) None of the above	1

1	CO2	Propose a synthetic scheme for the following interconversion i) Nitrobenzene to Phenol ii) Aniline to 2-ethylphenol	2.5 X 2
2	CO2	Rank the following compounds in increasing order of basic strength a) In Aqueous phase b) In gaseous phase Propose suitable reason for your ranking. 	3+2
3	CO1	Bromination of Phenol can be accomplished at room temperature however benzene requires higher temperature and a suitable catalyst (FeBr ₃) for the same reaction. Explain.	5
4	CO4	Arrange in increasing order of acidic strength. Explain the reason. Toluene, Diphenylmethane and triphenylmethane	5
5	CO4	Complete the following reactions: 	2.5+2.5
6	CO1	Select most acidic compound. Give suitable reasoning. 	1+4
7	CO5	How malonic ester reacts with 1,2-dibromopropane. Write suitable reaction.	
8	CO3	Calculate the acid value of an oil sample, 20grams dispersed in 100mL of ethanol. It requires 100mL of decimolar KOH solution for complete neutralization.	5
9	CO3	Explain the principle involved in determination of Reichert Meissl (RM) value and acetyl value.	5
		Total	75