

Code No: P18BST05

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)

I B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, FEB - 2023
APPLIED CHEMISTRY

(Common to EEE,CSE(IOTCSBT),AIDS,AIML Branches)

Time: 3 hours

Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

Answer all the questions in Part-A (5X2=10M)

Q. No.	Questions	Marks	CO	KL
1	a) Compare the Addition and Condensation polymerization	[2M]	1	1
	b) Why is hydrogen electrode not generally used in p^H measurement	[2M]	2	1
	c) What are enantiomers? give one example	[2M]	3	1
	d) Write the principle involved in NMR spectroscopy	[2M]	4	1
	e) Give any two applications of Green chemistry	[2M]	5	1

PART-B

Answer One Question from each UNIT (5X10=50M)

Q.No.	Questions	Marks	CO	KL
UNIT-I				
2.	a) Differentiate thermoplastic and thermosetting polymer	[5M]	1	2
	b) Define polymerization? Give the classification with examples	[5M]	1	4
OR				
3.	a) Explain with examples of emulsion polymerization	[5M]	1	2
	b) How do you prepare Buna – s and Thiokol rubber	[5M]	1	1
UNIT-II				
4.	a) What is Electrochemical corrosion? Give any one mechanism	[5M]	2	1
	b) Explain the sacrificial anodic protection and impressed current cathode	[5M]	2	2
OR				
5.	a) Describe the construction of lead-acid storage battery with reactions	[5M]	2	2
	b) What is Electrochemical series? Give the importance if this series	[5M]	2	1
UNIT-III				
6.	a) Describe the conformational isomerism of n - butane	[5M]	3	2
	b) Differentiate the enantiomers and diastereomers	[5M]	3	2
OR				
7.	a) Write notes on (a) structural isomers (b) stereo isomers	[5M]	3	1
	b) Explain optical isomerism of Tartaric acid and lactic acid	[5M]	3	2
UNIT-IV				
8.	a) Differentiate the vibrational and rotational spectroscopy	[5M]	4	2
	b) What are the steps involved in synthesis of Aspirin	[5M]	4	1
OR				
9.	a) Explain the following (a) chemical shift (b) magnetic resonance imaging	[5M]	4	1
	b) Calculate the number of vibrational modes for CO_2, H_2O	[5M]	4	2

UNIT-V					
10.	a)	Distinguish between Type – 1 and Type – 11 super conductors	[5M]	5	3
	b)	Explain any two synthetic method of Green chemistry	[5M]	5	2
OR					
11.	a)	Give any one preparation method for CNT and their applications (any five)	[5M]	5	1
	b)	How do you prepare and characterization by BET method	[5M]	5	1
