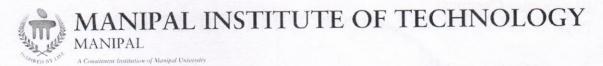


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III SEMESTER B.TECH. (CHEMICAL ENGINEERING) IN SEMESTER EXAMINATION, December 2021

SUBJECT: PHYSICAL AND ORGANIC CHEMISTRY [CHM 2151]

REVISED CREDIT SYSTEM

Time: 1.5 Hours

MAX. MARKS: 20

Instructions to Candidates:

- Answer ALL the questions.
- Missing data may be suitably assumed.

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1.	Explain the phase diagram calcium flouiride and calcium chloride system	
2.	The freezing point of water decreases by the addition of nonvolatile solute. Show that this decrease is a colligative property	3
3.	Explain the preparation, structure and reactions of carbocations	3
4.	Explain the conversion of fructose to mannose, structure(open and ring), and reactions of fructose	
5.		
6.	Define Henry's law and derive an expression for solution properties of the carbon tetrachloride-methanol system.	4