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**PRESIDENCY UNIVERSITY
BENGALURU**

**SCHOOL OF ENGINEERING
MID TERM EXAMINATION - OCT 2023**

Semester : Semester I - 2023

Course Code : CHE1017

Course Name : Sem I - CHE1017 - Applied Chemistry

Program : B. TECH

Date : 2-NOV-2023

Time : 9:30AM - 11:00AM

Max Marks : 50

Weightage : 25%

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Question paper consists of 3 parts.

(iii) Scientific and non-programmable calculator are permitted.

(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

(5 X 2 = 10M)

1. Define functionality of a monomer. (CO1) [Knowledge]
2. List the advantages of plastics in engineering applications. (CO1) [Knowledge]
3. Define an elastomer (CO1) [Knowledge]
4. What is Tacticity of a polymer? (CO1) [Knowledge]
5. Give any two examples for conducting polymers. (CO1) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

(4 X 5 = 20M)

6. With examples, discuss the classification of polymers based on (i) structure and (ii) monomeric units. (CO1) [Comprehension]
7. Give the synthesis, properties and applications of Nylon-6,6. (CO1) [Comprehension]
8. Give the synthesis, properties and applications of Teflon (CO1) [Comprehension]

9. What are conducting polymers? Mention the criteria for a polymer to perform as a conducting polymer with any two applications.

(CO1) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION

(1 X 20 = 20M)

10. a) Explain the synthesis, properties, and applications of Bakelite. (12 marks)
b) Distinguish between thermopolymers and thermosetting polymers. (8 Marks)

(CO1) [Application]