

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

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

Semester : Semester II - 2022

Course Code : CHE1017

Course Name : Sem II - CHE1017 - Applied Chemistry

Program : CIV,ECE&EEE

Date : 13-APR-2023

Time : 2PM - 3.30PM

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

(10 X 1 = 10M)

1. Condensation polymerization is also known as _____
a) Chain-Growth Polymerization (CO1) [Knowledge]
b) Step-Growth Polymerization
c) Co-polymerization
d) None of these
2. Which of the following is an example of polyamide?
a) Teflon b) Nylon-6,6 c) PTFE d) Bakelite (CO1) [Knowledge]
3. Which among the following is not a cross-linked polymer
a) Urea-formaldehyde resin b) Novolac (CO1) [Knowledge]
c) Bakelite d) Vulcanized rubber
4. Natural rubber is composed of the monomer _____
a) styrene (CO1) [Knowledge]
b) Glycerine
c) isoprene
d) phenol-formaldehyde
5. The number of repeating units present in a polymer is called the _____
a) Tacticity (CO1) [Knowledge]
b) Degree of Polymerization
c) Functionality
d) Polymer

6. Addition polymerization is also known as _____
a) Chain-Growth Polymerization b) Step-Growth Polymerization (CO1) [Knowledge]
c) Co-polymerization d) None of these
7. Which among the following is a thermo polymer
a) PTFE b) Urea-formaldehyde (CO1) [Knowledge]
c) Silicone rubber d) Urea-formaldehyde
8. The total number of bonding sites or functional groups present in a monomer molecule is called the _____ of the monomers.
a) Tacticity b) Chain movement (CO1) [Knowledge]
c) Functionality d) polymer
9. The total number of bonding sites or functional groups in a monomer molecule is called the _____ of the monomer
a) Tacticity b) Chain movement (CO1) [Knowledge]
c) Functionality d) Polymer
10. _____ are polymers which undergo long elongation (500–1000%) when subjected to an external force, but readily regain their original position when external force is removed.
a) Fibers b) Fiber reinforced plastics (CO1) [Knowledge]
c) Nylon d) Elastomers

PART B

ANSWER ALL THE QUESTIONS

(5 X 5 = 25M)

11. With a flow chart, brief the steps involved in processing the latex. (CO1) [Comprehension]
12. What is vulcanization? List out the properties of vulcanized rubber. (CO1) [Comprehension]
13. Give the synthesis, properties and applications of Nylon 6,6. (CO1) [Comprehension]
14. Differentiate between thermoplastics and thermosets. (CO1) [Comprehension]
15. Differentiate between addition polymerization and condensation polymerization. (CO1) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION

(1 X 15 = 15M)

16. Give the classification of polymers considering different parameters with examples. (CO1) [Application]