

TEST PAPER NO. 15

TOPIC : POLYMERS

M.M. 50

TIME: 3 HRS.

Name of Student _____ Roll No. _____

Q.NO. 1-10 carries 1 mark, 11-20 2 marks, 21-25 carries 3 marks, 26 carries 5 marks.

1. Is $(-NH-CHR-CO)_n$, a homopolymer or co polymer?
2. How does the presence of double bond in rubber molecules influence their structure and reactivity?
3. How is dacron obtained from ethylene glycol and terephthalic acid?
4. Classify the following as addition and condensation polymer: Terylene, Bakelite, PVC and Polythene?
5. What is the difference b/w Buna N and Buna S?
6. Arrange the following polymers in increasing order of their intermolecular forces: Nylon 6,6, Buna S, Polythene.
7. Write the free radical polymerisation mechanism for obtaining ethene?
8. What is copolymerization? Give two example?
9. What are the monomeric repeating unit of Nylon 6 and Nylon 66?
10. What are linear and cross linked polymer?
11. Write difference b/w addition and condensation polymer with 2 examples each?
12. What are bio degradable polymer? Explain with example?
13. What is vulcanization of rubber? Discuss the purpose of vulcanization?
14. Write difference b/w thermosetting and thermoplastic with example?
15. Write the monomer unit of following polymers:
a. Polypropene b. Polystyrene c. PVC
16. Write short notes on: i. Phenol-Formaldehyde resin
ii. Melamine-formaldehyde resin.
17. Write explanation for Synthetic and natural rubber with monomer units?
18. Explain Low Density and High Density polymer with example?
19. What are Elastomers and Fibres. Explain with example?
20. What are polyamides and polyesters. Explain with example?
21. What are the different class of polymers on the basis of source?
22. What are different class of polymers on the basis of structure?
23. Write the name and structure of one of the common initiators used in free radical addition polymerisation. Explain its application with mechanism?
24. Write down the monomer unit and example of following polymer:
a. Polythene b. Nylon 6,6 c. Nylon 6
25. Write down the monomer unit and example of following polymer:
a. Polyesters b. PVC c. Teflon
26. Write down the monomer unit and example of following polymer:
a. Novalac b. PHBV c. Nylon-2 Nylon -6
d. Glyptal e. Buna N