

KATHMANDU UNIVERSITY
End Semester Examination
February/March, 2019

Marks Scored:

Level : B.E.

Year : IV

Exam Roll No. :

Time: 30 mins.

Course : CHEG 411

Semester : I

F. M. : 10

05 MAR 2019

Registration No.:

Date :

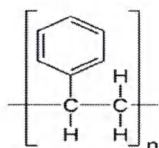
SECTION "A"

[20 Q. × 0.5=10 marks]

Select the most appropriate answer.

1. Which of the following is a natural polymer?
(a) Cellulose (b) Buna-S (c) Rayon (d) Nylon 6, 6

2. The monomer required for preparation of polymer shown below is



- (a) Ethylene (b) Styrene (c) VCM (d) Vinyl chloride
3. Semi-crystalline polymers generally means
(a) A bundle of crystal fibrosis present (b) Polymer with single crystals
(c) 100% crystalline (d) More than 70% crystalline
4. Branching in the polymer chain
(a) Decreases Tg value (b) Stabilises Tg value
(c) Increases Tg value (d) Does not affect Tg value
5. Molecular weight of a polymer usually
(a) Decreases Tg value (b) Stabilises Tg value
(c) Increases Tg value (d) Does not affect Tg value
6. Which of the following is a biodegradable polymer?
(a) PHBV (b) PTFE (c) LLDPE (d) Caprolactam
7. Polymer are _____ in nature.
(a) Organic (b) Inorganic (c) Both (a) & (b) (d) None
8. Which polymer is used in the manufacture of unbreakable crockery?
(a) Bakelite (b) Malamine resin (c) Dacron (d) PAN
9. Atactic polymers are generally
(a) Crystalline (b) Amorphous
(c) Semi crystalline (d) All the three forms

10. In order to give strength and elasticity, natural rubber is heated with
(a) Sulphur (b) Oxygen (c) Chlorine (d) Nitrogen
11. Antioxidants are used to prevent
(a) Thermal degradation (b) Photo degradation
(c) Oxidative degradation (d) Hydrolytic degradation
12. Polycondensation needs the monomer with
(a) Only one reactive functional group (b) Two or more reactive functional groups
(c) Any number of functional groups (d) No need of reactive functional groups
13. Lewis acids acts as initiators for
(a) Anionic polymerization (b) Free radical polymerization
(c) Coordination polymerization (d) Cationic polymerization
14. Auto acceleration occurs by which of the following method in preparing the polymer?
(a) Bulk (b) Solution (c) Emulsion (d) Suspension
15. Spherulites are
(a) Polymer single crystals (b) A bundle of crystal fibres
(c) Helical polymer with linkage (d) Isotactic polymer
16. Plasticizers are added in plastic to
(a) Reduce harness (b) Improve flexibility
(c) Reduce Tg (d) All of above
17. Living block polymer is prepared by
(a) Free radical polymerization (b) Cationic polymerization
(c) Anionic polymerization (d) Zeigler-Natta polymerization
18. Which of the following is not a thermosetting polymer?
(a) Alkyd resin (b) Bakelite (c) Melmac (d) PVC
19. Caprolactam polymerizes to give
(a) Nylon-6,6 (b) Nylon-6,10 (c) Nylon-6,12 (d) Nylon-6
20. Among the following polymer, the strongest intermolecular forces of attraction are present in
(a) Elastomers (b) Fibres
(c) Thermoplastics (d) Thermosetting polymers