

ix. Which one of these is incorrect statement for Thermosetting polymers? 1

- a) They are reusable after heating
- b) They can be stretched repeatedly
- c) They cannot be remolded
- d) They are resistant to deformation under load

x. Tubeless tyres are made of \_\_\_\_\_ rubber, which is a co-polymer of isoprene and isobutylene 1

- a) Butyl
- b) Nitrile
- c) Silicone
- d) Neoprene

Q.2 i. What are greases and how they are classified? 4

ii. Define viscosity, how it is classified? What are the factors affecting it and what is viscosity index? 6

OR iii. Describe aniline point, saponification value and neutralisation number with its significance. 6

Q.3 i. What is vulcanization of rubber and mention its advantages? 4

ii. Write notes on preparation, properties and uses of Nylon 66 and Teflon. 6

OR iii. Discuss preparation, properties and uses of PVC and Neoprene 6

Q.4 i. Define lubricant. How they are classified? 2

ii. What are the differences between thermoplastic and thermosetting resins? 3

iii. Explain the mechanism of Hydrodynamic lubrication. 5

OR iv. What are biopolymers? Give various advantages of biopolymers. 5

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Total No. of Questions: 4



Programme: B.Tech.

Enrollment No.....

Faculty of Engineering  
Mid Sem I Examination April -2022  
EN3BS14 Engineering Chemistry

Branch/Specialisation: All

Duration: 2 Hrs.

Maximum Marks: 40

- Q.1 i. Select the incorrect statement about the lubricant
- a) It acts as seal
  - b) It keeps out dirt
  - c) It acts as coolant
  - d) It enhances corrosion
- ii. The friction is needed to be reduced because \_\_\_\_\_
- a) Increase the load
  - b) Increase the consumption electricity
  - c) Reduces the excesses heat generated
  - d) Increases the excesses heat generated
- iii. Viscosity index is zero for
- a) Paraffin base gulf oil
  - b) Paraffin base Pennsylvanian oil
  - c) Napthanic base gulf oil
  - d) Napthanic base Pennsylvanian oil
- iv. What are the lubricants used for railway tracks?
- a) Graphite
  - b) Grease
  - c) Vegetable oil
  - d) Blended oil
- v. What is the range of coefficient of friction in hydrodynamic/thick film /fluid film lubrication?
- a) 0.5 - 1.5
  - b) 0.001 - 0.03
  - c) 0.05 - 0.15
  - d) > 0.001
- vi. Soft drink bottles are made up of
- a) Polystyrene
  - b) Polyurea
  - c) Polyester
  - d) Polyamide
- vii The wax present in oil raises the
- a) Drop point
  - b) Aniline point
  - c) Pour point
  - d) Fire point
- viii Which of the following is a copolymer?
- a) Polyvinyl chloride
  - b) Nylon 66
  - c) Teflon
  - d) Polythene

