

Subject Code: 2172604

Date: 03/12/2019

Subject Name: Rubber Products Manufacturing

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 Answer the following

- (a) "Butyl Rubber is used for manufacturing of Pharmaceutical Closures." Justify the statement. (03)
- (b) Which Points should be taken into consideration in the Dock Fender selection Procedure? (04)
- (c) Explain in detail about the Principles of Damping. (07)

Q.2 Answer the following.

- (a) Define the term Cellular Rubber. Give the classification of Cellular Rubber. (03)
- (b) Which Points should be kept in mind while compound design for Slipper Sole? (04)
- (c) List the applications of rubber in Defense field. (07)

**OR**

- (c) List the applications of rubber in Sports & Automobile Engineering field. (07)
- Q.3
- (a) State three major application of Ebonite Rubber. (03)
  - (b) Discuss in detail about selection of Rubbers for oil seals. (04)
  - (c) Write in detail about manufacturing process of Conventional Golf Ball. (07)

**OR**

- Q.3
- (a) State the difference between NR Ebonite & SBR Ebonite Rubber. (03)
  - (b) Describe the manufacturing of Seals by Extrusion Process. (04)
  - (c) Discuss in detail about manufacturing of Ebonite Rod. (07)
- Q.4
- (a) Which Properties should be considered while compound design for Hot Water Bottle? (03)
  - (b) Write the finishing process for Rubber Rollers. (04)
  - (c) Discuss the manufacturing process of Surgical Tubing. (07)

**OR**

- Q.4
- (a) Why rubber should be used for manufacturing of Hospital sheet? List the problems occurred during manufacturing of Hospital sheet. (03)
  - (b) Why Tank Lining is required? Write the compound design for Lining of Tank. (04)
  - (c) How Cores for Rubber Rollers can be prepared for Bonding Procedure? Describe about the Bonding methods for Manufacturing of Rubber Rollers. (07)
- Q.5
- (a) Which Polymers are used for manufacturing of Printing Blanket? Why? (03)
  - (b) Write about the different forms of conductors used for manufacturing of Cable. (04)
  - (c) Short note on Crosslinkable Polyethylene material used for Power Cable. (07)

**OR**

- Q.5
- (a) List the applications of Printing Blanket. (03)
  - (b) Justify the importance of Semiconducting shield for Cable design. (04)
  - (c) Write about dough preparation, solvent recovery and curing process for manufacturing of Printing Blanket. (07)

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