

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII • EXAMINATION – WINTER • 2014****Subject Code: 172604****Date: 27-11-2014****Subject Name: Rubber Product Manufacturing****Time: 10:30 am - 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) Which Points should be taken into consideration in the Dock Fender selection Procedure? (05)
- (b) Explain in detail about the Principles of Damping. (06)
- (c) “Butyl Rubber is used for manufacturing of Pharmaceutical Closures.” Justify the statement. (03)

**Q.2 (a) Answer the following.**

- (i) Draw the flow chart of manufacturing process of Rubber Band. (03)
- (ii) Application of Rubber in Sports field. (04)
- (b) Answer the following.
- (i) Explain the Role of Viscosity in Degree of Expansion. (04)
- (ii) State the difference between NR Ebonite & SBR Ebonite Rubber. (03)

**OR**

- (b) Answer the following.
- (i) Write in detail about compounding of Sponge Rubber. (04)
- (ii) State three major application of Ebonite Rubber. (03)

**Q.3 (a) State the difference between Seal & Gasket. Write in detail about the types of Seals. (05)**

- (b) Discuss in detail about manufacturing process of Simple Play Ball. (09)

**OR****Q.3 (a) Write in detail about manufacturing process of Conventional Golf Ball. (08)**  
**(b) Describe the manufacturing of Seals by Extrusion Process. (06)****Q.4 (a) Write in detail about the Compound design of Lining for Acid Storage Tank. (04)**

- (b) Which Properties should be considered while compound design for Hot Water Bottle? Write the Moulding & Curing procedure for manufacturing of Hot Water Bottle. (05)
- (c) Discuss in detail about spreading Process for manufacturing of Printing Blanket. (05)

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**OR**

- Q.4 (a) Discuss the Tank Cleaning and Rubber Lining procedure for Acid Storage Tank. (04)**
- (b) Write the manufacturing process for Surgical Tubing. (05)**
- (c) Describe all the process for manufacturing of Printing Blanket after Curing Process. (05)**
- Q.5 (a) Discuss in detail about Polymeric Materials for Cable Insulation. (07)**
- (b) List the applications of Rubber Rollers. (04)**
- (c) Write the finishing process for Rubber Rollers. (03)**

**OR**

- Q.5 (a) How Electrical Stress & Insulation Thickness should determine for Cable Design? Explain in detail. (07)**
- (b) Describe about the Bonding methods for Manufacturing of Rubber Rollers. (04)**
- (c) How Cores for Rubber Rollers can be prepared for Bonding Procedure? (03)**

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