

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2172604****Date: 29/11/2018****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) Importance of Dock Fenders in Marine applications. (03)
- (b) Which rubbers are used for manufacturing of Rubber Stoppers? Why? (04)
- (c) Define the term (1) Vibration (2) Shock. Write about the principles of Isolation. (07)

Q.2 Answer the following.

- (a) Which process is suitable for giving shape and manufacturing of Rubber band from solid rubber in bulk? Why? (03)
- (b) Give the difference between Microcellular & Macrocellular Rubber. (04)
- (c) List the applications of rubber in Medical & Mechanical Engineering field. (07)

OR

- (c) List the applications of rubber in Army, Air force & Navy field. (07)

Q.3 (a) "Ebonite rubber is a versatile material." Justify the statement. (03)

- (b) List the different methods for manufacturing of Seals. Write any one in detail. (04)
- (c) Discuss in detail about manufacturing process of Simple Play Ball. (07)

OR

Q.3 (a) State the difference between seal &amp; gasket. List the different types of seal. (03)

- (b) Short note on "Melton Cloth for Tennis Ball." (04)
- (c) Discuss in detail about manufacturing of Ebonite Rod. (07)

Q.4 (a) State the problems occurred during and after the curing process of tank lining by rubber compound. (03)

- (b) Write about the compound design for Rubber Roller. (04)
- (c) Discuss the manufacturing process of Hot water bag. (07)

OR

Q.4 (a) List the properties required for manufacturing of Surgical tubing. (03)

- (b) Why Tank Lining is required? Write the compound design for Lining of Tank. (04)
- (c) Define the term 'Rubber Roller'. Explain the importance of roll balance for rubber roller. (07)

- Q.5 (a) Write about the different forms of conductors used for manufacturing of Cable. (03)
- (b) Short note on “Spreading Process” for manufacturing of Printing Blanket. (04)
- (c) Why polyethylene is cross-linked as an insulation material for Cable? How it can cross linked? (07)

OR

- Q.5 (a) Which Polymers are used for manufacturing of Printing Blanket? Why? (03)
- (b) Explain in detail about the importance of current carrying capacity & selection of conductor cross-sectional area for Cable Design. (04)
- (c) Describe all the process for manufacturing of Printing Blanket after Curing Process. (07)

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