

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – VII • EXAMINATION – WINTER 2012

Subject code: 172604

Date: 27/12/2012

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 (a) Explain the importance of Viscosity of Compound for the production of Cellular Rubber Products. (05)

(b) Discuss in detail about compound design for Slipper Sole. (05)

(c) “Ebonite Rubber is a versatile material.” Justify the statement. (04)

Q.2 (a) Through which product you can establish the elasticity of rubber? Discuss the product & its process in detail. (07)

(b) List the applications of rubber in Civil & Textile Engineering field. **OR** (07)

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

Q.3 (a) Which properties are required for Pharmaceutical Closures? Which rubber is used for manufacturing of Pharmaceutical Closures? Why? (04)

(b) Why Tank Lining is required? Write the compound design for Lining of Tank. (04)

(c) Discuss the manufacturing process for Hospital Rubber Sheet. (06)

OR

Q.3 (a) Describe the Post Curing process for manufacturing of Rubber Stoppers. (06)

(b) Explain in detail about Pneumatic & Raykin Fender. (08)

Q.4 (a) Justify the importance of Semiconducting shield for Cable design. (05)

(b) Discuss about the compound design & dough preparation for manufacturing of Printing Blanket. (06)

(c) List the special characteristics for cable used in Space & Aircraft industry. (03)

OR

Q.4 (a) Explain in detail about the importance of current carrying capacity & selection of conductor cross-sectional area for Cable Design. (05)

(b) Write about the different forms of conductors used for manufacturing of Cable. (03)

(c) Discuss the importance of Spreading Process for manufacturing of Printing Blanket. (06)

Q.5 (a) Write about Compressed air inflation method used for manufacturing of Tennis Ball. (05)

(b) Define the term ‘Rubber Roller’. Write its application in detail. (04)

(c) Discuss about the Properties of Seal Materials. (05)

OR

Q.5 (a) List the different steps for manufacturing of Conventional Golf Ball. Write about any two in detail. (05)

(b) Write in detail about the Compounding for manufacturing of Rubber Roller. (05)

(c) List the different methods for manufacturing of Seals. Write any one in detail. (04)
