

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII EXAMINATION – SUMMER 2016

Subject Code:182601

Date:10/05/2016

Subject Name:Tyre & Tube Technology

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 (a) List all the components of Tyre. Explain any six. (07)
- (b) Write a note on Tyre & Rim dimensions and importance of aspect ratio. (07)
- Q. 2 (a) Explain the structural differences between radial and bias tyre and thereby explain any two advantages of radial over bias tyre. (07)
- (b) Discuss the compound design of Plies and Inner liner. (07)
- OR
- Q. 2 (b) Draw the mixing process chart for Truck Tyre. Explain the mixing process. (07)
- Q. 3 (a) In which area of truck tyre manufacturing Hot Feed Extruder is used? Which kind of Hot Feed Extruder is used? Explain that process with flow sheet. (07)
- (b) Short note on: “Tyre moulds”. (07)
- OR
- Q. 3 (a) Describe the tyre building method for Radial tyre. (07)
- (b) Discuss on Tyre Building Drums. (07)
- Q. 4 (a) Write about the practical manufacturing problems in tyre industry. (06)
- (b) Analyse the tyre performance with respect to tyre stiffness. (08)
- OR
- Q. 4 (a) Discuss the tread design and its Importance. (07)
- (b) Analyse and evaluate the tyre Rolling Resistance. (07)
- Q. 5 (a) Explain the moulding process for tyre flap. (06)
- (b) Give the importance of chilling process in Automobile Tube manufacturing. (02)
- (c) Discuss the manufacturing process of Cycle tyre. (06)

OR

- Q. 5 (a) Name the process for Retreading. Which one is better? Explain that process. (07)
- (b) Discuss the mandrel method for manufacturing Cycle tube. (07)

