

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2182601****Date: 26/11/2018****Subject Name: Tyre & Tube Technology****Time: 02:30 PM TO 05:00 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) Write in brief on Pneumatic tyre. (03)
(b) What is the Aspect Ratio? Give the advantages and disadvantages of Aspect Ratio. (04)
(c) Discuss in detail about tyre nomenclature with their designation. (07)
- Q. 2** (a) "The tyre industry can help in fuel saving of vehicle". Justify the statement. (03)
(b) Explain the role of curing bag in Tyre vulcanization. (04)
(c) Describe about the manufacturing process of Bead. (07)
- OR**
- (c) Explain the essential components of cycle tyre and draw the cross section of cycle tyre. (07)
- Q. 3** (a) Draw the mixing process flow chart for Truck Tyre. (03)
(b) Explain the Post Curing Inflation (PCI) treatments in tyre manufacturing. (04)
(c) Describe the tyre building method for Radial tyre. (07)
- OR**
- Q. 3** (a) List the classification of Rims and draw the schematic diagram of any one. (03)
(b) Draw the four basic Tread patterns of Tyre. (04)
(c) Explain the Tyre Curing process. (07)
- Q. 4** (a) List out the raw materials used in Solid Tyre manufacturing. (03)
(b) Give the importance of valve jamming process in automobile tube. (04)
(c) Analyze the tyre performance with respect to rolling resistance. Also write about the methods for determining rolling resistance. (07)
- OR**
- Q. 4** (a) List the general requirements of valves. (03)
(b) Draw labeled diagram of Diagonal Tyre cross section. (04)
(c) Analyze the tyre performance with respect to Tyre Stiffness. (07)
- Q. 5** (a) List the properties require for manufacturing of Tyre flap. (03)
(b) What is meant by 28" X 1½" and 4/14 in cycle tyre? (04)
(c) Discuss about the automobile tube defects with their causes & remedies. (07)
- OR**
- Q. 5** (a) Give the importance of chilling process in Automobile Tube manufacturing. (03)
(b) List the defects observed on Tyre Flap. (04)
(c) Discuss in detail about final finish inspection of Tyre. (07)
