

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Subject code: 2711306**Date: 12-01-2015****Subject Name: Rail Transportation System Planning and Design****Time: 02:30 pm - 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.

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|-----------|-----|---|----|
| Q.1 | (a) | What are the factors affecting selection of gauge? Explain briefly | 07 |
| | (b) | What are the measures should be taken up to achieve the higher speed in rail transportation? | 07 |
| Q.2 | (a) | Enlist the various types of sleepers. Explain their merits and demerits. | 07 |
| | (b) | Write a short note on a) Bearing Plate
b) Fish Plate | 07 |
| OR | | | |
| | (b) | List out the critical track defects that cause train derailment. | 07 |
| Q.3 | (a) | Describe the various principles for fixation of rates and fares in railway. Explain any two principles. | 07 |
| | (b) | Explain ñ Class rates, Exceptional rates, Commodity rates | 07 |
| OR | | | |
| Q.3 | (a) | Enlist the various models for demand analysis for passengers. Explain any one. | 07 |
| | (b) | Compare fixed capital expense and circulating capital expense. | 07 |
| Q.4 | (a) | Explain - Project interdependencies? | 07 |
| | (b) | Write a short note on ôReconnaissance Surveyô | 07 |
| OR | | | |
| Q.4 | (a) | What do you understand by ôTechno Economic Surveyô | 07 |
| | (b) | Briefly explain about the Anti Collision Device. | 07 |
| Q.5 | (a) | Explain the planning process for Railway Transportation System. | 07 |
| | (b) | Explain- Strategic Planning, Tactical Planning, Operational Planning | 07 |
| OR | | | |
| Q.5 | (a) | Which types of traffic data should be collected in Traffic Survey for Railway System? | 07 |
| | (b) | Enlist the gauges used in India. What is the necessity of conversion of gauge? | 07 |
