GUJARAT TECHNOLOGICAL UNIVERSITY ME - SEMESTER I - EXAMINATION – SUMMER 2017

| Su Tii | bject me:0 tructio 1. 2. | Code: 2711306 Date:11/05/201 Name: Rail Transportation System Planning & Design 2:30 pm to 05:00 pm Total Marks: 7 ons: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. | |
|------------|--------------------------------------|--|----------------|
| Q.1 | (a) (b) | Explain the factors affecting selection of gauges. Why heavier rail sections like 60 kg/m and 52 Kg/m for B.G. tracks have been introduced on Indian Railways? | 07 07 |
| Q.2 | (a) (b) (b) | A Meter gauge track has a sleeper density on M+5. If the track is laid with rails of 13 meter length, find out the numbers of sleepers under one rail length. Explain why periodic renewal of ballast is necessary? How is done? OR What type of soil is suited as subgrade in railway track? Discuss the different | 07 07 07 |
| Q.3 | (a) (b) | methods for improving the poor subgrade. Describe the various possible causes which may result into an accident and suggest possible remedies. Describe the various principles for fixation of rates and fares in railway, giving merits and demerits of each principle. | 07 07 |
| Q.3 Q.4 | (a) (b) (a) | OR Write a short note – Trip Rate Model, Aggregate Simultaneous Model What are the sequences of Project Development Process in Railway? Explain – Anti Collision Device | 07 07 07 |
| Q.4 | (b) (a) (b) | What are the planning steps for Railway? OR Explain – Techno economic survey, Reconnaissance Survey Write a short note on "Techno economic survey' | 07 07 07 |
| Q.5 | (a) (b) | What are the economic measures should be adopted to reduce the expenses? Explain - Disaggregate Mode Choice Model OR | 07 07 07 |
| Q.5 | (a) (b) | Describe the measures which can be taken up to achieve higher speeds in rail transportation. Enumerate the different equipment required on important station yards. | 07 07 |
