

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI(OLD) – EXAMINATION – SUMMER 2019

Subject Code:160603

Date:10/05/2019

Subject Name: Railway Bridge & Tunnel Engineering

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)** Define ballast. Enlist functions of ballast and requirements of ideal ballast material. **07**
- (b)** Enlist various methods for measurement of creep. Explain any one in detail. **07**
- Q.2 (a)** Explain Centralized Traffic Control and Automatic Traffic Control.. **07**
- (b)** Enumerate various factors affecting choice of gauge. **07**
- OR**
- (b)** Enlist various measures to minimize wear of rail. **07**
- Q.3 (a)** What are the causes of failure of railway embankment? Suggest remedial measures to check it. **07**
- (b)** Enlist advantages and disadvantages of constructing shaft in tunnel work. **07**
- OR**
- Q.3 (a)** Enlist various methods of tunneling in hard rock. Explain any two in detail. **07**
- (b)** Enlist various factors controlling the alignment of railway track. Explain any two in detail. **07**
- Q.4 (a)** Describe different types of surveys to be carried out in case of a new railway project. **07**
- (b)** Classify the bridges in various types considering various factors. **07**
- OR**
- Q.4 (a)** Enlist Ideal bridge site characteristics. **07**
- (b)** Enlist various types of low cost bridges. Explain any one in detail with sketches. **07**
- Q.5 (a)** Enumerate different causes of accidents in tunnels. Enlist safety measures to be adopted to overcome it. **07**
- (b)** Explain: Lining in tunnel. **07**
- OR**
- Q.5 (a)** Write in detail the procedure of routine maintenance of railway track. **07**
- (b)** Write short note on Marshalling Yard. **07**
