

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2016

Subject Code: 2160603

Date: 11/05/2016

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) Write with sketch (I) Coning of wheels (II) Creep of rails 07
(b) What is Ballast? Write Function and requirement of good ballast 07
- Q.2 (a) Write short note “ Concrete Sleepers” 07
(b) Explain different types of gradient used in railway 07
- OR
- (b) Write short note (I) Cant deficiency (II) Negative super elevation 07
- Q.3 (a) Explain semaphore signals and Coloured light signals 07
(b) Explain methods of interlocking 07
- OR
- Q.3 (a) Write short note: (I) Metro rails (II) Mono rails 07
(b) Explain causes of rail accidents and their remedial measures 07
- Q.4 (a) Write types and function of bearing. Explain rocker and roller bearing 07
(b) Discuss with sketch erection of steel arch bridge 07
- OR
- Q.4 (a) Write Short note on “maintenance of bridges” 07
(b) Write short note on “ Bridge architecture” 07
- Q.5 (a) Explain methods of tunneling in soft ground 07
(b) Explain various methods for “Tunnel ventilation” 07
- OR
- Q.5 (a) Write short note on “ Safety Precautions in tunneling” 07
(b) Why drainage is necessary in tunnel ? Discuss various drainage systems for tunnel. 07
