

Enrollment No: _____

Exam Seat No: _____

C. U. SHAH UNIVERSITY

Summer Examination-2022

Subject Name : Railway, Bridge and Tunnel Engineering

Subject Code : 4TE06RBT1

Branch: B.Tech (Civil)

Semester: 6

Date: 09/05/2022

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.

Q-1 Attempt the following questions: (14)

- a) Explain classification of railway station
- b) What are the causes of scouring?
- c) Explain rocker bearing with sketch
- d) Define Ballast
- e) Explain Cut water
- f) Define Abutment
- g) What is Afflux?
- h) What is creep?
- i) Enlist problems in tunneling
- j) Define Momentum Gradient
- k) Define Free Board
- l) Explain Negative super elevation
- m) What is HFL?
- n) Define sleeper

Attempt any four questions from Q-2 to Q-8

- Q-2** [A] Classify Railway signals in detail. (07)
[B] Discuss stages involved in bridge investigation. (07)
- Q-3** [A] Write method of erection of steel girder bridges. (07)
[B] Explain various methods of tunnel ventilation. (07)
- Q-4** [A] Discuss any one method of tunneling in hard rock. (07)
[B] Define Track alignment. Discuss basic requirements of an ideal alignment. (07)
- Q-5** [A] What is Economic span of a bridge? Derive the expression for economic span of bridge. (07)
[B] Explain objectives of signaling. (07)
- Q-6** [A] Write a short note on suspension bridge. (07)
[B] Describe how you will transfer centre line from ground to inside of tunnel. (07)
- Q-7** [A] Discuss the methods of testing and strengthening of bridges. (07)
[B] Discuss the systems of Railways in brief. (07)
- Q-8** [A] Describe in detail the drainage, maintenance works for the railway track. (07)
[B] Explain classification of wings walls with neat sketches. (07)

