

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular End Semester Examination – Summer 2022

Course: B. Tech. Branch : Civil Engineering

Semester : 7th Sem

Subject Code & Name: BTCVC 702 Infrastructure Engineering

Max Marks: 60

Date: 18/08/2022

Duration: 3.45 Hr.

Instructions to the Students:

1. All the questions are compulsory.
2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

(Level/
CO) Marks

Q. 1 Solve Any Two of the following.

- A) Illustrate the term permanent way and Explain the Components of a permanent way. **CO1** 6
B) Write a short note on Fixture and Fastening. **CO1** 6
C) State necessity for geometric design of railway track. **CO2** 6

Q.2 Solve Any Two of the following.

- A) Define the following terms:
a) Coning of wheel
b) Adzing of sleeper
c) Tilting of Rails
d) Station Yard **CO2** 6
B) Draw layout for simple turnout and explain the components of Turnout. **CO2** 6
C) Enlist Types of Station and explain it in-details. **CO2** 6

Q. 3 Solve Any Two of the following.

- A) Describe the full face method of Tunneling in hard rock, with neat sketch. **CO2** 6
B) Sketch the various types of tunnels cross-section. State under what conditions each is adopted. **CO2** 6
C) Explain any four types of explosives used in tunnel construction. **CO2** 6

Q.4 Solve the following.

- A) State factors affecting on site selection for docks and harbor. **6**
B) Write a short note on Inland Water Transport in India. **6**

Q. 5 Solve Any one of the following.

- A) What are the different stages of bridge planning and Write a short note on standard specification of bridge. **12**
B) What is Airport and explain the characteristics of Aircraft and Explain parallel runways with its sketches. **12**

***** End *****