



R18 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 2P5AC

B.Tech V Semester Supplementary Examinations, July 2022
TRANSPORTATION ENGINEERING

(Civil Engineering)

Maximum Marks: 70

Date: 05.07.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What are the salient features of Jayakar committee?
- 2 What is the necessity of highway planning?
- 3 Write about horizontal transition curves.
- 4 Write about highway cross sectional elements?
- 5 Write down the relation between speed, volume and density?
- 6 List preventive measures for road accidents.
- 7 What are the different types of intersections?
- 8 Write about various types of pavements.
- 9 What is the role of base course and sub base courses in flexible pavements?
- 10 What is operational capacity in intersection.

Part-B

Answer All the following questions.

(10M X 5=50Marks)

- 11 a) What are the various road patterns practiced? Explain.(5M)
b) Explain the role of engineering surveys in finalizing highway alignment. (5M)
OR
- 12 a) Give list of drawings to be submitted for highway alignment. Explain(5M)
b) What are the differences between good and improper alignment? (5M)
- 13 a) What are the steps involved to design super elevation? (5M)
b) What is i) Kerb ii) Road Margin iii) Width of roadway iv) Right of way (5M)
OR
- 14 a) What are the various gradients used in highways? What do you understand by Grade compensation(5M)
b) Discuss the design factors of horizontal alignment(5M)
- 15 What are the objectives of traffic volume studies and discuss about the role of 30th hourly volume? (10M)
OR
- 16 What are road markings? What are different types of road markings? Explain. (10M)

- 17 What are the advantages of channelization in highways and also explain the salient features of a clover leaf intersection? (10M)
- OR
- 18 Explain the impacts of geometrics on intersection with respect to safety. (10M)
- 19 Explain the design procedure of rigid pavements as per IRC methods. (10M)
- OR
- 20 a) Discuss the various failures of flexible pavement. (5M)
b) Write about various processes of pavement evaluation. (5M)