

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
III B.Tech II Semester Supplementary Examinations, November-2025
ROAD SAFETY ENGINEERING
(Civil Engineering)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

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| | | <u>UNIT-I</u> | |
| 1. | | Explain in detail the types of accident data that need to be collected for effective road safety analysis. | [14M] |
| | | (OR) | |
| 2. | a) | Explain in detail about road accidents, Trends, causes. | [7M] |
| | b) | Discuss about road safety improvement strategies. | [7M] |
| | | <u>UNIT-II</u> | |
| 3. | | Describe systematically the stages of road accident investigation and methods of analysis. | [14M] |
| | | (OR) | |
| 4. | a) | Explain any one case study on accidental investigation. | [7M] |
| | b) | What is black spot? What is its importance in accident analysis? | [7M] |
| | | <u>UNIT-III</u> | |
| 5. | | List and explain the steps involved in a road safety audit. | [14M] |
| | | (OR) | |
| 6. | a) | Write a note on work zone safety audit. | [7M] |
| | b) | Discuss briefly about crash investigation. | [7M] |
| | | <u>UNIT-IV</u> | |
| 7. | a) | List out the variables involved in jump and flip crashes. | [7M] |
| | b) | Explain the factors involved in pedestrian crashes. | [7M] |
| | | (OR) | |
| 8. | a) | Explain how speed influence crash reconstruction | [7M] |
| | b) | Describe the basic information that can be obtained from the roadway surface | [7M] |
| | | <u>UNIT-V</u> | |
| 9. | a) | Write a notes on road safety law | [7M] |
| | b) | Write a notes on highway operation and accident control measures, | [7M] |
| | | (OR) | |
| 10. | a) | Explain accident prevention by better planning | [7M] |
| | b) | Explain in detail about highway geometry and safety | [7M] |
