

III B. Tech II Semester Regular Examinations, July -2023
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

UNIT-I

1. Discuss briefly about accident data to be collected. [14M]
(OR)
2. a) Explain the need for safety data. [7M]
b) Discuss about road safety improvement strategies. [7M]

UNIT-II

3. A vehicle of 3 tonnes skid through a distance equal to 50m before colliding with another parked vehicle of weight 1.0ton. After collision both the vehicles skid through a distance equal to 12m before stopping. Compute initial speed of moving vehicle. Assume coefficient of friction as 0.5. [14M]
(OR)
4. a) Discuss briefly about data required for accident studies. [7M]
b) Explain the procedure of accident investigation. [7M]

UNIT-III

5. a) Write a note on work zone safety audit. [7M]
b) Discuss briefly about crash investigation. [7M]
(OR)
6. a) Explain the need for road safety audit. [7M]
b) Discuss the important factors considered in road safety audit. [7M]

UNIT-IV

7. a) Explain how speed influence crash reconstruction. [7M]
b) Describe the basic information that can be obtained from the roadway surface. [7M]
(OR)
8. a) Explain the factors involved in pedestrian crashes. [7M]
b) List out the variables involved in jump and flip crashes. [7M]

UNIT-V

9. a) Explain the highway safety measures during construction. [7M]
b) Discuss various stake holder involved in road safety. [7M]
(OR)
10. Explain how actions can be prevented. [14M]

