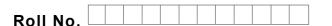


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M.Tech.(Civil Engg.) (2016 Batch) (Sem.-2) ADVANCED TRAFFIC ENGINEERING Subject Code : MTCE-208 M.Code : 74301

Time: 3 Hrs.

Max. Marks:100

INSTRUCTIONS TO CANDIDATES :

- 1. Attempt any FIVE out of EIGHT questions.
- 2. Each question carries TWENTY marks.
- 1. What are the different vehicular characteristics which affect the road design? Briefly explain.
- 2. a) Explain traffic capacity, basic capacity, possible capacity and practical capacity.
 - b) Discuss briefly various factors affecting the practical capacity of road.
- 3. a) Explain the role of pavement surface characteristics in highway geometric design. State the factors affecting friction between pavements and tyres of vehicles?
 - b) Design superelevation required at a horizontal curve of radius 300m for speed of 80kmph. Assume suitable data.
- 4. a) What are the factors on which overtaking sight distance depends? Explain briefly.
 - b) Derive an expression for finding stopping sight distance at level and at grades.
- 5. a) Discuss factors to be considered while designing length of transition curve. Derive an expression for finding length of transition curve on horizontal alignment of highways.
 - b) A national highway passing through rolling terrain in heavy rainfall area has a horizontal curve of radius 500m. Design the length of transition curve assuming suitable data.
- 6. a) What are the conditions when traffic rotary is justified? Explain various advantages and limitations of traffic rotary.
 - b) Explain grade separated intersections alongwith their advantages and disadvantages.
- 7. What are the various types of parking facilities designed for traffic needs? Compare kerb parking with off street parking.
- 8. With neat sketches show various types of traffic signs, classify them in proper groups.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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