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Total Number of Pages: 01

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M.TECH
GEPE206

2nd Semester Back Examination – 2016-17
INFRASTRUCTURE ENGINEERING & TRANSPORTATION PLANNING
BRANCH(S): GEOTECHNICAL ENGG
Time: 3 Hours
Max Marks: 70
Q.CODE: Z825

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

- Q1 **Answer the following questions:** (2 x 10)
- a) What do you mean by a transportation network?
 - b) State the various stages of transportation planning process?
 - c) State PIEV theory.
 - d) Explain the difference between *on street parking* and *off street parking*.
 - e) State the organizational structure of traffic engineering department.
 - f) What do you mean by *reduced traffic demand*?
 - g) What do you mean by Tidal Flow Operation?
 - h) Draw a neat sketch of a Trumpet interchange.
 - i) What do you mean by staggered hours?
 - j) Define *one-way streets*.
- Q2 a) Explain quick response travel evaluation procedure. (5)
b) Discuss the effects of vehicle characteristics on traffic. (5)
- Q3 State and explain various transportation network theories. (10)
- Q4 Explain the design procedure of a rotary intersection. Draw a neat sketch of a rotary and show its important elements.. (10)
- Q5 a) Explain telematics concept in travel planning. (5)
b) Explain in detail the detrimental effects of traffic on the environment in regard to various parameters. (5)
- Q6 a) Define traffic restraint. What are the different methods employed for traffic restraint? (5)
b) Explain the techniques applied for reducing traffic flows during peak hours. (5)
- Q7 a) Discuss the importance of traffic management. (10)
Describe various traffic management techniques for improving vehicular flow in a road network.
- Q8 **Write short notes on any TWO .** (5 x 2)
- a) Advantages of one way street
 - b) Rotary intersection
 - c) Methods of trip distribution
 - d) Economic span of a bridge

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