Code No: 07A70106 **R07** **Set No. 2**

IV B.Tech I Semester Examinations,November 2010
TRAFFIC ENGINEERING
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain the objectives of installing road traffic signs. What are the various types of traffic signs generally used for traffic control and road safety? Explain with suitable answers supported by neat sketches. [16]
2. Explain the direct method of conducting spot speed study with a neat sketch? Also write the advantages and disadvantages of this method. Discuss about the other methods of collecting data. [16]
3. Discuss about the various remedial measures that can help in reducing the number of road accidents. [16]
4. What kind of traffic control and regulatory measures can be used for relieving traffic congestion in urban areas? Explain. [16]
5. What are the various factors generally considered for traffic volume data collection with a standard format as per the HCM /IRC. Discuss the various methods. [16]
6. How do you classify the capacity of urban streets? Explain the operating characteristics and level of services of Arterial streets? [16]
7. How do you provide loading and unloading parking facilities for different kinds of vehicles in the CBD areas, Give standard dimensions of slots. [16]
8. What do you understand by Visual Intrusion due to traffic in urban areas? Explain. What type of road design and traffic management measures can reduce the effects of visual intrusion? Discuss. [16]

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Code No: 07A70106 **R07** **Set No. 4**

IV B.Tech I Semester Examinations,November 2010
TRAFFIC ENGINEERING
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Describe zoning and parking space requirement standards? What are the desirable parking space standards for different land use? [16]
2. What are the various factors affecting speed and volume of vehicles. Explain each factor in detailed manner. [16]
3. (a) How the traffic variations generally take place in the year and write the significance of the variations in volume counts?
   (b) Explain the term traffic volume. What are the objectives of carrying out traffic volume studies? Discuss the various traffic studies and their importance? [8+8]
4. How the alignment and grades influence the traffic capacity? Furnish the PCUs of trucks and buses on multilane highways and average Generalized passenger car equivalent of trucks and buses on two lane highways over extended section lengths. Discuss the influence of these on traffic capacity. [16]
5. With the help of neat diagrams, explain the use of Condition diagram and collision diagram in accident data collection and analysis. [16]
6. With the help of neat sketches explain how the following objectives can be achieved by channelization:
   (a) Control of Speed.
   (b) Protection to turning traffic at intersections.
   (c) Elimination of excessive intersection area.
   (d) Protection to pedestrians at intersections. [16]
7. (a) What do you understand by informatory signs? Explain with suitable examples.
   (b) When do you use Chevron marking on roads? Explain with examples and sketches. [8+8]
8. Increasing traffic in urban areas is a major cause of decreasing quality of urban life. How do you justify the statement? Discuss. [16]

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Code No: 07A70106 **R07** **Set No. 1**

IV B.Tech I Semester Examinations,November 2010
TRAFFIC ENGINEERING
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Write short notes on the following with sketches wherever possible
   (a) Cautionary Signs.
   (b) Mandatory signs.
   (c) Direction Signs.
   (d) Route Marker Signs. [16]
2. Explain various types of Traffic volume measurements? Write the significance of average daily traffic? [16]
3. Explain with the help of suitable sketches how traffic can be regulated at T intersections using channelization. [16]
4. Write short notes on the following:
   (a) Road Traffic Noise.
   (b) Visual Intrusion due to Traffic.
   (c) Vibrations caused by traffic and their effects.
   (d) Measures to control air pollution by traffic. [16]
5. Describe the operating characteristics and quality of flow of weaving sections with neat sketches. [16]
6. What kind of parking policies are to be introduced to maximize revenue, encourage short time parking and encourage long term parking. [16]
7. What are the general considerations for planning and programming traffic counts based on road classification, mean and standard error? [16]
8. What do you understand by Road Safety Audit? What are the various steps involved in Road Safety Audit? Explain with the help of a flow chart. [16]

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Code No: 07A70106 **R07** **Set No. 3**

IV B.Tech I Semester Examinations,November 2010
TRAFFIC ENGINEERING
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Define level of service and serviceability and evaluation? Describe the various types of traffic facilities available on any highway. [16]
2. Give the classification of Traffic Signs and explain their objectives. Also explain the design specifications for each type of sign and give two examples for each type. [16]
3. Explain with the help of suitable sketches how traffic can be regulated at Y intersections using channelization. [16]
4. Explain the concept of passenger car unit? How the passenger car units vary from place to place and intersection to intersection, explain? Mention the PCU equivalent as per Indian practice. [16]
5. What are the various physiological and psychological factors of the driver that affect the road safety? Discuss in detail. [16]
6. Which method of parking is best suitable for heavy traffic areas, congested areas and CBD, explain the valid reasons? [16]
7. (a) Explain the relation between speed and volume with a neat sketch.
   (b) How the time head and space headway influence the traffic volume? [8+8]
8. (a) Discuss about the vibrations produced by traffic and the effect of surface finish on generation of vibrations.
   (b) How the traffic in urban areas causes visual intrusion and degradation of aesthetics? Discuss. Also explain about the measures to reduce the effect of visual intrusion.

   [8+8]

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