



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 100657

Roll No.

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B. Tech.

(SEM. VI) THEORY EXAMINATION, 2014-15
TRANSPORTATION SYSTEM AND PLANNING

Time : 3 Hours]

[Total Marks : 100

- 1 Attempt any two: (2×10 = 20)
- (a) Explain the role of transportation in economic & social activities.
 - (b) Discuss the goals & objectives of Transportation Planning.
 - (c) Explain the factors affecting Trip Generation & Trip Attraction.
- 2 Attempt any two: (2×10 = 20)
- (a) Enumerate the various types of IPT modes. Explain the characteristics & role played by IPT.
 - (b) Explain in detail that Rapid & Mass Transport system in mega cities of India is the need of time.
 - (c) What are the traffic stream variables? Show the inter-relationship among them graphically.

- 3 Attempt any two: (2×10 = 20)
- (a) Define Traffic Assignment. Explain any one technique.
 - (b) What are the factors considered for the design of pedestrian facilities?
 - (c) Define the following: (i) Accessibility ratio (ii) Travel time ratio (iii) Travel cost ratio.
- 4 Attempt any two parts: (2×10 = 20)
- (a) Draw a flow diagram for modal split carried out between trip generation & trip distribution.
 - (b) A single lane road 50 km long is to be widened to two lanes at a cost of Rs. 8 lakhs per km, including all improvements. The cost of operation of vehicles on the single lane road is Rs. 1.2 per vehicle km, whereas it is Re.1 per vehicle km on the improved facility. The average traffic may be assumed 2500 vehicles per day over a design period of 20 years. The interest rate is 10% per annum. The cost of maintenance is Rs. 5000 per km on the existing road and Rs. 10,000 per km on the improved road. Is the investment in the improvement scheme worthwhile?
 - (c) Differentiate between Short Range & Long Range transportation planning system.
- 5 Attempt any two: (2×10 = 20)
- (a) What are the IRC guidelines for design of pedestrian and bicycle facilities in India?
 - (b) Explain the importance of IT in transportation.
 - (c) Explain in brief about MLRA. Derive its expression.