

B.TECH.

THEORY EXAMINATION (SEM-VI) 2016-17
TRANSPORTATION SYSTEM AND PLANNING

Time : 3 Hours

Max. Marks : 100

Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.

SECTION – A

1. Explain the following: 10 x 2 = 20
- Mention the measures to be taken to meet the situation created by deteriorating traffic conditions in the cities.
 - Write short note on traffic growth in cities.
 - Mention the role of transportation system in our life.
 - Define the term transportation planning in short.
 - Discuss the effects of traffic on the environment in short.
 - Write short note on present scenario of road transport.
 - Discuss the types of transportation system in India.
 - What do you mean by transportation planning?
 - Why bicycle traffic is to be promoted?
 - What are the objectives of transportation planning?

SECTION – B

2. Attempt any five parts of the following question: 5 x 10 = 50
- Discuss the role of IPT in transportation system. How it is useful?
 - What are the different types of IPT vehicles in India?
 - What is need for traffic forecasting? Discuss its limitations.
 - What are the difficulties in the transportation planning process?
 - What are the characteristics of IPT modes?
 - Define the following traffic stream variables (i) space headway (ii) time headway (iii) time mean speed (iv) flow (v) concentration
 - Define the term trip generation. What are the factors governing trip generation and attraction rates?
 - What is trip distribution? Discuss the method of trips distribution.

SECTION – C

Attempt any two of the following questions: 2 x 15 = 30

- What is the purpose of Traffic Assignment? Discuss the various assignment techniques.
- The total trips produced in and attracted to the three zone A, B and C of a survey area in the design year are tabulated as:

Zone	Trips produced	Trips attracted
A	2000	3000
B	3000	4000
C	4000	2000

It is known that trips between two zones are inversely proportional to the second power of the travel time between zones, which is uniformly 20 minutes. If the trip interchange between zones B and C is known to be 600, Determine the trip interchange between zones A and B, A and C, B and A, C and B.

- What is Model split? Discuss the various factors affecting Model split.