

INTERNAL ASSESSMENT -1 (Answer key)

Date: 25/9/2020

Course code 17CV751/15CV751

**Course Name: Urban Transportation and Planning
Sem VII**

S.No	Question	Marks
1	What are the causes of urbanisation?	5
2	What are the salient features of BRTS?	5
3	What are the 4 stages of travel demand modelling?	5
4	How is home interview survey conducted?	5
5	Explain about the inventory of transport facilities and economic activities in urban transportation and planning	10

1.0 Industrialisation - for better employment opportunities. (1)

2.Social factors: attraction of cities, better standard of living, better educational facilities, need for status also induce people to migrate to cities.(1)

3.Employment opportunities: In rural sector people have to depend mainly on agriculture for their livelihood. But Indian agriculture is depending on monsoon. In drought situations or natural calamities, rural people have to migrate to cities.(1.5)

4.Modernization: Urban areas are characterized by sophisticated technology better infrastructure, communication, medical facilities, etc. People feel that they can lead a comfortable life in cities and migrate to cities.(1.5)

2.0 Dedicated right of way-Category B ROW

Clearly designated stops

Low floor and multiple door for easy access

Services offered throughout the day regularly

Movement of buses along the line

well organized and controlled by various ITS measures guaranteeing high reliability

Four lane roadways.

Off board fare collection

Intersection treatment

Platform level boarding (0.5 point each)

3.0 Trip generation- Trip generation models determine a mathematical relationship between number of trips produced in a zone and land use and socio economics characteristics.(1)

Trip distribution- Trip distribution models connect the trip-ends predicted by trip generation models between set of two zones.(1)

Modal split- The modal split models determine the mode of travel chosen by the traveller. Modal split can be considered at any stage between trip generation and trip assignment (2)

Trip assignment - Trip assignment is the procedure by which the route chosen by a trip maker is determined. (1)

4.0 Home interview survey

Reliable type of survey for collection of origin and destination data.(0.5)

It is done to know the travel pattern of household and the general characteristics of household influencing trip making (2)

- Travel pattern

number of trip made, purpose of trip, time of departure from origin and time of arrival at destination, travel mode

- Household characteristics

age, sex, vehicle ownership, number of drivers, family income, type of dwelling unit.

This technique involves interviewing as many members of household as possible. (0.5)

Forms are distributed and completed forms will be collected by the interviewer in a day or two.(0.5)

Publicity shall be given about the survey in local press, TV and radio.

high cost involved (0.5)

Bureau of public road manual precisely describe how interviews to be conducted and what information should be collected (0.5)

sampling procedure is employed (0.5)

5.0 Important to know the deficiencies in the present system and the extent to which it needs to be extended.

Transport network (6)

Inventory of streets forming the transport network

Traffic volume, peak and off-peak

Studies on travel time by different modes.

Inventory of public transport buses

Inventory of rail transport facilities

Parking inventory

Accident data

Economic activities (4)

Population of survey area and various zones

Age, sex and composition of family

Employment statistics

Housing statistics

Income

Vehicle ownership

Question	Answer
1. Exclusive right of way is given to	All the above
2. Urban transportation _____ is the process that leads to decision on transportation policies and programs	planning
3. The first BRTS of India was implemented in _____	pune
4. Land use, transportation and road network plans are _____	interlinked
5. _____ Metro is the oldest metro in India	Kolkatta
6. For developing a city bus system the following survey/surveys have to be carried out.	All the above
7. The number of passenger seats on a transit vehicle system is known as	seat capacity
8. Which is the medium capacity of mass transport?	tram
9. Category A right of way is applicable to	MRTS
10. Schedule, route and fare are dynamic in _____ transportation system.	private
11. The boundary of CBD is known as	internal cordon line
12. In zoning traffic zones are related to _____	homogeneity of landuse and population
13. For transport system planning of an area, the study area has to be divided into	zones
14. To delineate traffic zones, topographic barriers such as ---- should be considered	rivers, canals and railway lines
15. There are ___ types of movement patterns studied by delineating various internal and external zones.	4
16. It is planned to construct a by-pass road connecting Hosur and Bangalore. Study on which movement will be useful?	external to external
17. Which of the following movement represent through trip?	external to external
18. A unique property of land-use is its ability or potential to _____ traffic.	generate
19. Ease of movement refers to	mobility
20. How trip rates are determined?	travel pattern, activity patter, desire of household