

GANPAT UNIVERSITY
B.TECH- SEMESTER-VIII CIVIL ENGINEERING
REGULAR EXAMINATION MAY/JUNE- 2014
SUBJECT: 2CI: 811- TRANSPORTATION ENGINEERING –II

Time: 3 Hours

Max Marks: 70

Instructions: - (1) Answer to the two sections must be written in separate answer books.

(2) Figures to the right indicate full marks.

(3) Assume suitable data if required.

SECTION - I

Que 1

Answer the following Questions.

- (A) What are the drawbacks of transportation engineering? (6)
 (B) Describes the advantages and disadvantages of category analysis technique. (6)

OR

Que1

Answer the following Questions.

- (A) Draw the neat chart of transportation planning process and give description of each step. (6)
 (B) Write short note on "Traffic Survey". (6)

Que 2

Answer the following Questions

- (A) Write down the comments on Growth Factor Methods. (5)
 (B) The total trip volumes from zone 1 to 2 are 3000. Find the volumes on each route, connecting the two zones, using the particulars given in table below: (6)

Use TRC trip assignment model.

Route No.	Length (kms)	Speed (km/hr)
1	3.2	35
2	2.6	26
3	2.2	16
4	2.7	18

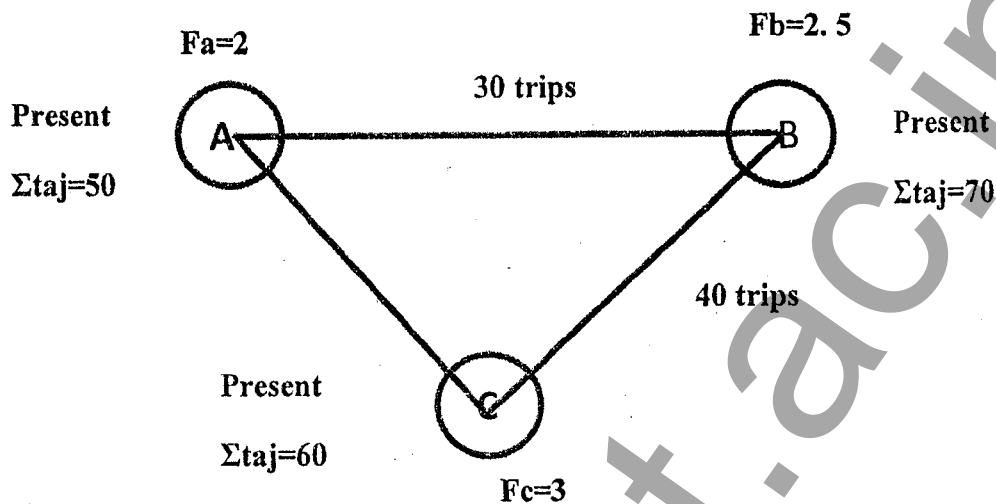
OR

Que 2

Answer the following Questions

- (A) Enlist the methods of Route Assignment? Explain any one in details. (5)

- (B) Three zones A, B, C are shown with interchanges between A and B=30, between B and C=40 and between C and A=20. These are non-directional interchanges. Growth factors of 2, 2.5 and 3 are forecasts for the zones A, B and C respectively. Using the fratar method computes the zonal interchanges in the forecast year. (6)



- Que 3 Answer the following questions. (Any Two)
- (A) What is co-ordination of transportation? Write down the comments on it. (6)
- (B) Discuss the advantages and disadvantages of BRTS in Ahmedabad city? Give your suggestions for improving it? (6)

SECTION – II

- Que 4 Answer the following Questions.
- (A) Explain ESWL & the concept in the determination of the equivalent wheel load. (6)
- (B) What do you understand by frost action? Discuss the effects and factors on which the intensity of frost action depends. (6)
- OR
- Que 4 Answer the following Questions.
- (A) What are the various tests on bituminous material in highway construction? Explain application of the bitumen test. (6)
- (B) Explain IRC recommendation for the CBR test in flexible pavement. (6)
- Que 5 Answer the following Questions.
- (A) Explain difference between bitumen and tar. (6)
- (B) Discuss Westergaards concept of temperature stresses in concrete pavements. (5)

OR