

GANPAT UNIVERSITY
B.Tech. Semester VII (CIVIL)

Regular Examination – November / December: 2011

C 705: Transportation Engineering-I (Elective-I)

Max.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

- 1 **Attempt the following Question.** 12
 - (A) Compare different modes of transportation in terms of accessibility, mobility, efficiency & cost effectiveness.
 - (B) What is four-stage transportation planning? Explain the importance of the each stage in planning process.

OR

- 1 (A) Explain types of grade separated intersections with neat sketch. 12
 (B) Describe with sketch the relationship between the flow parameters. (Speed, Volume and Density)
- 2 **Attempt the following Question.** 11
 - (A) What is level of service concept according to HCM?
 - (B) Comment on importance of four 'E' (Engineering, Enforcement, Education & Environment) in traffic regulation.

OR

- 2 (A) Discuss in brief different traffic management techniques. 11
 (B) What is rotary intersection? Which are design factor affecting it?
- 3 **Attempt the following Question.** 12
 - (A) Establish a trip generation model for the following data using regression analysis.

Zone	No. of trips	Population
1	320	16000
2	280	17000
3	200	10000

- (B) Distribute the trips using Furness method of trip distribution for the following data. Carryout two iterations.

D \ O	A	B	C	D	Present Trips	Future Trips
A	-	300	200	150	650	1400
B	250	-	400	100	750	1600
C	150	350	-	200	700	1500
D	200	150	300	-	650	1200
Present Trips	600	800	900	450	2750	
Future Trips	1300	1600	1700	1100		5700

Section - II

- 4 Attempt the following Question. 12

(A) Explain with figure of different warning sign & its functions.

(B) Define the following terms:

space hour, parking accumulation, parking load, practical capacity, turn over, parking duration

OR

- 4 (A) Explain the Need of parking studies.

(B) What do you understand by means of pavement marking? Classified them.

- 5 Attempt the following Question. 11

(A) Explain different pavement markings with the help of figure.

(B) Explain spot speed characteristics.

OR

- 5 (A) What is accident study? List out objectives of accident study.

(B) What are causes of road accident?

- 6 Attempt the following Question. 12

(A) Define various methods of origin and destination detailed.

(B) Explain one way control & also mention requirements, merits and demerits of it.

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1	320	16000
2	280	17000
3	200	10000