
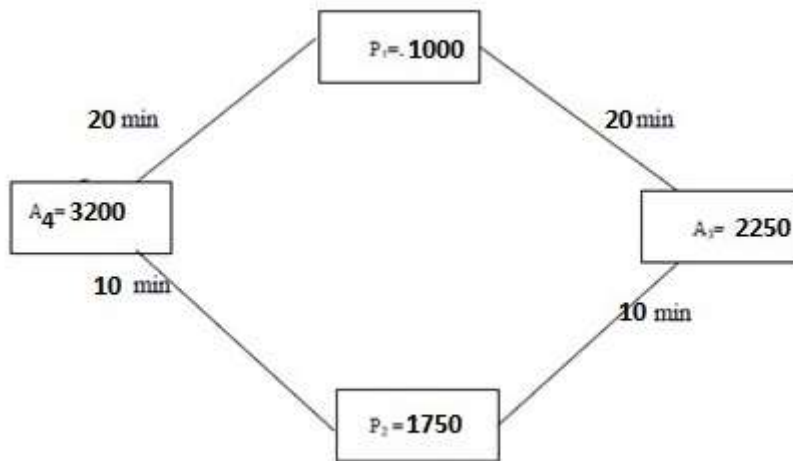


Name:			
Enrolment No:			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b> <b>End Semester Examination, May 2022</b>			
<b>Course: Urban Transport Planning</b> <b>Program: B. Tech Civil, Elective-4</b> <b>Course Code: CIVL 3043</b>		<b>Semester: VI</b> <b>Time : 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>Instructions: Attempt all the questions. Except in case of <u>OR</u>, answer anyone.</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	Explain the following terms. i. Problem definition ii. Goals & Objectives iii. Constraints iv. Intervention	5	CO1
Q 2	Briefly write on application of traffic assignment with respect to a metropolitan city.	5	CO2
Q 3	Discuss the concept of modal split between Trip Generation and Trip Distribution via a flow diagram.	5	CO3
Q 4	Draw a conceptual desire line diagram.	5	CO4
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q 5	Write about a few urban transportation challenges and how can you resolve it?	10	CO3
Q 6	What is meant by zoning? Estimate trip rate for a residential land use with 2744 thousands of square feet and 6574 person trips.	10	CO1
Q 7	What is a land use system and transportation system? Explain the land use and transportation model.	10	CO2
Q 8	A. What is MRTS? Discuss its challenges with the help of an example(s). <b>OR</b> B. Explain the requirements of MRTS and explain the types in case of India.	10	CO4
<b>SECTION-C</b> <b>(2Qx20M=40 Marks)</b>			
Q 9	A. Calculate and tabulate the inter-zonal trips using Fratar growth factor method as first approximation:	20	CO4

	OD	A	B	C	D		
	A	-	10	12	18		
	B	10	-	14	14		
	C	12	14	-	6		
	D	18	14	6	-		
	Growth factor	2	3	1.5	1		

**OR**

B. A self-contained town having 4 residential areas P<sub>1</sub>, P<sub>2</sub>, A<sub>3</sub>, A<sub>4</sub> and an industrial area provides 4500 jobs. The generation equation shows that, for the design year in question, the trips from home to work generated by each residential area per 24 hours day are as show in the diagram. Calculate and tabulate the inter-zonal trips for journeys from home to work using the suitable model.



**20**

**CO4**

Q 10	Explain the various methods in modal split.	<b>20</b>	<b>CO4</b>
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