



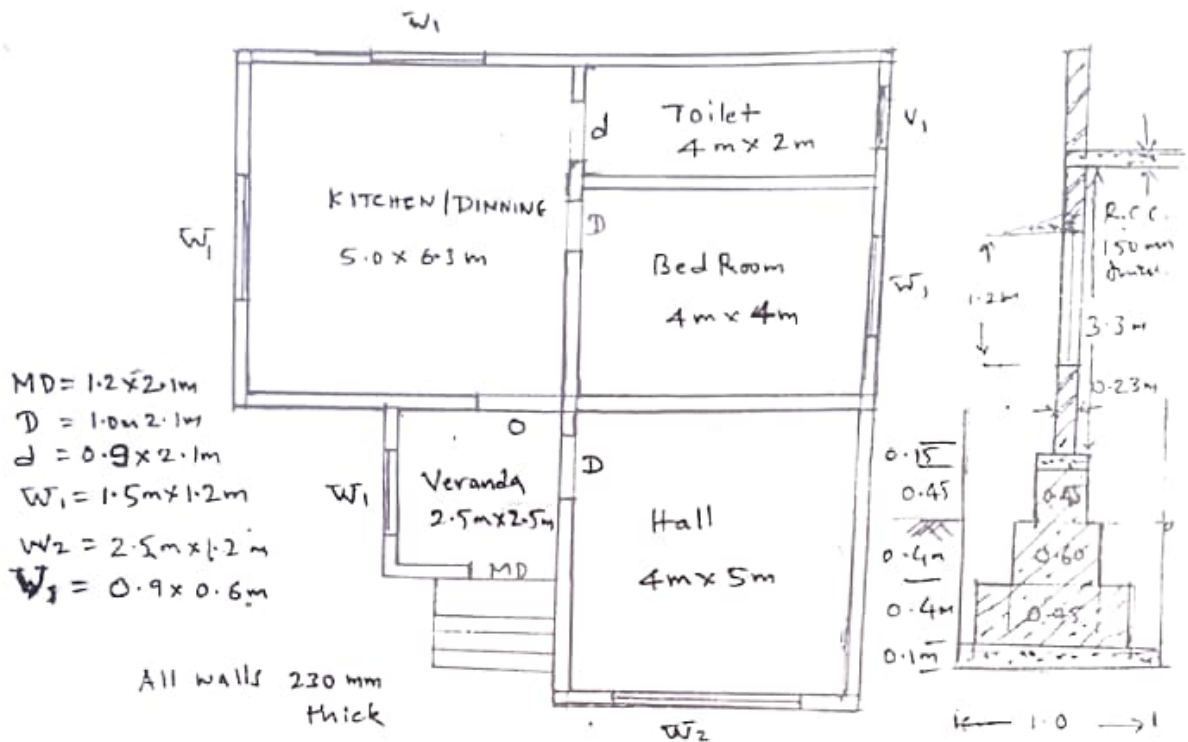
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109
DEPARTMENT OF CIVIL ENGINEERING
SESSION: 2021-2022 (ODD SEMESTER)

ASSIGNMENT-1

Batch	2018-2022
Year/Semester/Section	IV/ VII/A
Course Code/Title	18CV71/ Quantity Surveying and Contracts Management
Name of the Course In charge	Sushma M & Amrutha Dhiraj

Assignment No: 1 Date of Issue: 12/10/2021		Total marks: 15 Date of Submission: 29/10/2021		
Sl. No.	Assignment Questions	K Level	CO	Marks
1.	Estimate the quantity and cost of the following by long wall short wall method for the plan and section shown in fig.1: a. Earthwork excavation for foundation in hard soil at Rs. 380/m ³	K3 Applying	CO1	2
2.	Estimate the quantity and cost of the following by long wall short wall method for the plan and section shown in fig.1: a. Plain cement concrete 1:3:6 for bed of the foundation at Rs. 3000/m ³	K3 Applying	CO1	2
3.	Estimate the quantity and cost of the following by long wall short wall method for the plan and section shown in fig.1: a. SSM in CM 1:6 for footings and basement foundation at Rs. 2200/m ³	K3 Applying	CO1	2
4.	Estimate the quantity and cost of the following by long wall short wall method for the plan and section shown in fig.1: a. CC Plinth 1:2:4 at Rs. 3900/m ³	K3 Applying	CO1	2
5.	Estimate the quantity and cost of the following by long wall short wall method for the plan and section shown in fig.1: a. BBM walls with CM 1:6 for superstructure at Rs.4500/m ³ b. Determination of total cost abstract of estimate	K3 Applying	CO1	2
6.	Explain Tender Notice. List the essential information given along with tender notice.	K2 Understanding	CO2	1
7.	What are the types of contracts? Explain any three types of contracts.	K2 Understanding	CO2	1

8.	Explain briefly about administrative approval and technical sanction.	K2 Understanding	CO2	1
9.	List the advantages and disadvantages of Lump sum contract.	K1 Remembering	CO2	1
10.	Explain the following terms: (i) EMD (ii) Security deposit	K2 Understanding	CO2	1



Sushma M Amrutha D
 Course In charge

Sushma M/ Amrutha Dhiraj

Note:

1. Kindly mail the answer scripts to e-mail ID: qscm.2021@gmail.com
2. Name the file as USN- Assignment 1

Wkelle
 Head of the Department

Professor & Head
 Dept. of Civil Engineering
 Dr. Vijayalakshmi Akella
 K.S. School of Engineering & Management
 Bangalore-560 062



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109
DEPARTMENT OF CIVIL ENGINEERING
SESSION: 2021-2022 (ODD SEMESTER)

ASSIGNMENT-1

Batch	2018-2022
Year/Semester/Section	IV/VII/Civil Engineering
Course Code/Title	18CV732/ Air Pollution and Control
Name of the Course In charge	Dr. Vyshali

Assignment No: 1 Date of Issue: 22-10-2021		Total marks: 15 Date of Submission: 8-11-2021		
Sl. No.	Assignment Questions	K Level	CO	Marks
1.	Define air pollution and write a note on primary and secondary air pollutants.	K2 Understanding	CO1	2
2.	Explain the following: i. Aerosols ii. Dust iii. Mists iv. Aldehydes	K2 Understanding	CO1	2
3.	Define the inversion and explain the types of inversion.	K2 Understanding	CO1	2
4.	Explain the following with respect to leaf damage due to air pollution: i. Necrosis ii. Chlorosis iii. Abscission iv. Epinasty	K2 Understanding	CO1	2
5.	Explain the photochemical smog adding with chemical reactions.	K2 Understanding	CO1	2
6.	Define the temperature lapse rate and explain the atmospheric stability.	K2 Understanding	CO2	1
7.	Write a note on surface wind direction and wind speed recorder.	K2 Understanding	CO2	1
8.	Explain the following: i. Pibals ii. Tetroons iii. Radio and radar iv. Smoke trails	K2 Understanding	CO2	1
9.	With a neat sketch explain the plume behaviour.	K2 Understanding	CO2	1
10.	Discuss the wind rose diagram.	K2 Understanding	CO2	1

Vyshali
Course In charge

Utkelle
Head of the Department
Professor & Head
Dept. of Civil Engineering
K.S. Green Institute
K.S. School of Engineering & Management
Bangalore-560109



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109

DEPARTMENT OF CIVIL ENGINEERING

SESSION: 2020-2021 (ODD SEMESTER)

ASSIGNMENT-1

Batch	2021-2022
Year/Semester/Section	IV/VII/A
Course Code/Title	Urban Transport Planning/ 18CV745, 17CV751, 15CV751
Name of the Course In charge	Mrs Saisushma B A

Assignment No: 1 Date of Issue: 25-10-2021		Total marks:15 Date of Submission: 08-11-2021		
Sl. No.	Assignment Questions	K Level	CO	Marks
1.	Define urbanization? What are the causes of urbanization?	K1 Remembering	CO1	5
2.	Explain the scope of urban transport planning.	K2 Understanding	CO1	5
3.	Define "Systems Approach". Explain with flow diagram the systems approach to transport planning.	K2 Understanding	CO1	5
4.	Draw a flowchart of various stages in urban transport planning process.	K2 Understanding	CO1	5
5.	Write a note on the following a) Metro trains b) LRT	K2 Understanding	CO1	5
6.	Define "Zone". Explain the different factors considered in dividing the whole area into zones.	K2 Understanding	CO2	5
7.	Define the external cordon line. What factors should be given due weightage in the selection of external cordon line.	K1 Remembering	CO2	5
8.	Draw a neat sketch of basic movements in a transportation survey. What are the surveys conducted?	K2 Understanding	CO2	5

9.	Explain how road side interview is carried out.	K2 Understanding	CO2	5
10.	What is the information that is collected on travel pattern and household characteristics during home interview survey?	K1 Remembering	CO2	5

Sai Eshwara - BA
25/10/2021

Course In charge

Wskelle

Professor & Head
Dept. of Civil Engineering
K.S. Group of Institutions
K.S. School of Engineering & Management
Bangalore-560002.



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109
DEPARTMENT OF CIVIL ENGINEERING
SESSION: 2021-2022 (ODD SEMESTER)

ASSIGNMENT-2

Batch	2018-2022
Year/Semester/Section	IV/ VII/A
Course Code/Title	ISCV71/ Quantity Surveying and Contracts Management
Name of the Course In charge	Sushma M & Amrutha Dhiraj

Assignment No: 2		Total marks:15																						
Date of Issue: 16/12/2021		Date of Submission: 24/12/2021																						
Sl. No.	Assignment Questions	K Level	CO	Marks																				
1.	Write a note on: (i) Performance security (ii) Mobilization and equipment advances.	K2 Understanding	CO2	1																				
2.	Write a note on: (i) Breach of contract (ii) Liquidated damages and Bonus.	K2 Understanding	CO2	1																				
3.	What is a measurement book? Outline the rules to be followed in recording measurement book.	K2 Understanding	CO2	1																				
4.	Explain termination of contract.	K2 Understanding	CO2	1																				
5.	Write a note on Nominal Muster Roll.	K2 Understanding	CO2	1																				
6.	Estimate the quantity of earth work for a road of 12m formation width the following data using mid-section formula. <table border="1" data-bbox="234 1318 897 1696"><thead><tr><th>Chainage</th><th>RL of GL</th></tr></thead><tbody><tr><td>14</td><td>108.60</td></tr><tr><td>15</td><td>109.25</td></tr><tr><td>16</td><td>109.40</td></tr><tr><td>17</td><td>108.85</td></tr><tr><td>18</td><td>108.85</td></tr><tr><td>19</td><td>107.25</td></tr><tr><td>20</td><td>106.80</td></tr><tr><td>21</td><td>107.15</td></tr><tr><td>22</td><td>107.20</td></tr></tbody></table> <p>The road formation is proposed at uniform following gradient 1 in 200 passing through GL at Chainage 14. Length of one chain is 30m. Side slope 1.5:1 in cutting and 2:1 in banking. The rate of earth work in filling and cutting are Rs. 180/m³ and Rs. 120/m³ respectively.</p>	Chainage	RL of GL	14	108.60	15	109.25	16	109.40	17	108.85	18	108.85	19	107.25	20	106.80	21	107.15	22	107.20	K3 Applying	CO3	2
Chainage	RL of GL																							
14	108.60																							
15	109.25																							
16	109.40																							
17	108.85																							
18	108.85																							
19	107.25																							
20	106.80																							
21	107.15																							
22	107.20																							

7. **Estimate** the quantities of earthwork from Chainage 70 to 76 measured with a standard 20m chain from the following data. Use mean sectional area method. Side slopes 1:1 in cutting and 2:1 in banking. Formation width of road is 12m. Draw longitudinal section of the proposed road

Chainage	GL (m)	FL (m)
70	88.10	88.50
71	87.74	Raising Gradient 1 in 100
72	87.80	
73	88.20	
	90.40	
74	90.75	
75	90.20	
76	89.98	

**K3
Applying**

CO3

2

8. **Estimate** the cost of earthwork for a portion of the road from the following data. Formation width of the road is 10m. Side slopes are 2:1 in filling and 1.5:1 in cutting. The cost filling is Rs. 180/m³ and cutting Rs. 120/m³

Chainage	RL of GL (m)	RL of FL (m)
0	100.6	101
40	100.2	Raising Gradient 1 in 400
80	99.8	
120	100.2	
160	100.8	
200	101.9	
240	102.4	
280	102.5	

**K3
Applying**

CO3

2

9. **Estimate** the quantity of earth work for the portion of a road 400m length from the following data: Formation width of road is 10m, side slopes are 2:1 in banking and 1.5:1 in cutting

Station	Distance (m)	RL of ground	RL of formation
25	1000	51.0	52.0
26	1040	50.9	Downward gradient of 1 in 200
27	1080	50.5	
28	1120	50.8	
29	1160	50.6	
30	1200	50.7	
31	1240	51.2	
32	1280	51.4	
33	1320	51.3	
34	1360	51.0	
35	1400	50.6	

**K3
Applying**

CO3

2

10. Estimate the quantity of earthwork. Reduced levels of ground along a proposed road are given in the table. The formation level at 1st chain is 108 and the road is in downward gradient of 1:150 up to the 4th Chainage and then gradient changes to 1:100 downward. Formation width of road is 10m. Side slopes 2:1 (H: V). Length of chain is 30m.

Chainage	RL of ground
0	106
1	106.6
2	106.44
3	106.9
4	106.42
5	105.3
6	106
7	105.1
8	105.62
9	105
10	104.3

K3
Applying

CO3

2

*Sushma M
Amrutha*
Course In charge

Sushma M/ Amrutha Dhiraj

Akella
Head of the Department

Professor & Head

Dr. Vijaylakshmi Akella

M.S. Ramaiah Institute of Technology

K.S. Somaiya Institute of Management

Bangalore-560002



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109

DEPARTMENT OF CIVIL ENGINEERING

SESSION: 2021-2022 (ODDSEMESTER)

ASSIGNMENT-II

Academic Year	2021-2022
Batch	2018-2022
Year/Semester/Section	3 rd / VII / Civil Engineering
Course Code-Title	18CV732-Air Pollution and Control
Name of the Course In charge	Dr. Vyshali

Assignment No: 2		Total marks:15		
Date of Issue: 3-12-2021		Date of Submission:15-12-2021		
Sl. No.	Assignment Questions	K Level	CO	Marks
1.	Define wind speed and explain the factors affecting the wind speed.	K2 Understanding	CO2	1
2.	What is a turbulence? Discuss the classification of the turbulence.	K2 Understanding	CO2	1
3.	Write a note on causes of the turbulence.	K2 Understanding	CO2	1
4.	Define the following: i. Plume rise ii. Stack height	K1 Remembering	CO2	1
5.	Explain the empirical formula of Moses and Carson.	K2 Understanding	CO2	1
6.	Write a note on preliminary considerations and stages of sampling.	K2 Understanding	CO3	2
7.	Explain the following: i. Duration of sampling air ii. Location of sampling sites.	K2 Understanding	CO3	2
8.	Explain the isokinetic sampling in case of stack sampling.	K2 Understanding	CO3	2
9.	Discuss the Procedure for particulate matter sampling.	K2 Understanding	CO3	2
10.	Explain the following: i. Representative sample ii. Traverse point.	K2 Understanding	CO3	2

Vyshali
Course In charge

Intelle
Head of the Department
Professor & Head
Dept of Civil Engineering
K.S. School of Engineering
& Management
Bangalore-560109



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109

DEPARTMENT OF CIVIL ENGINEERING

SESSION: 2021-2022 (ODD SEMESTER)

ASSIGNMENT-2

Batch	2021-2022
Year: Semester/Section	IV/VII/A
Course Code/Title	Urban Transport Planning/ 18CV745, 17CV751, 15CV751
Name of the Course In charge	Mrs Saisushma B A

Assignment No: 2

Date of Issue: 17-12-2021

Total marks:15

Date of Submission: 24-12-2021

Sl. No.	Assignment Questions	K Level	CO	Marks
1.	Explain the inventory of transport facilities.	K2 Understanding	CO2	5
2.	Summarize the interdependence of land use and traffic.	K2 Understanding	CO2	5
3.	What is sampling? Discuss the various types of sampling.	K2 Understanding	CO2	5
4.	Discuss on expansion of data from samples.	K2 Understanding	CO2	5
5.	Explain the inventory of land use and economic activities.	K2 Understanding	CO2	5
6.	Outline the factors governing trip generation and attraction rates.	K2 Understanding	CO3	5
7.	Define category analysis. What are the assumptions to be made category analysis?	K1 Remembering	CO3	5
8.	Explain home based and non-home based trips.	K2 Understanding	CO3	5

9.	<p>Solve the below matrix by average factor method. The future trips generated in zones A, B & C are 360, 1260 & 3120 respectively</p> <table border="1" data-bbox="393 241 742 493"> <thead> <tr> <th>O/D</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>60</td> <td>100</td> <td>200</td> </tr> <tr> <td>B</td> <td>100</td> <td>20</td> <td>30</td> </tr> <tr> <td>C</td> <td>200</td> <td>300</td> <td>20</td> </tr> </tbody> </table>	O/D	A	B	C	A	60	100	200	B	100	20	30	C	200	300	20	K3 Applying	CO3	5									
O/D	A	B	C																										
A	60	100	200																										
B	100	20	30																										
C	200	300	20																										
10.	<p>Solve the below matrix by fratar method. The future trips generated in zones A, B, C & D are 80, 114, 48 and 38 respectively.</p> <table border="1" data-bbox="341 693 779 1018"> <thead> <tr> <th>O/D</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>-</td> <td>10</td> <td>12</td> <td>18</td> </tr> <tr> <td>B</td> <td>10</td> <td>-</td> <td>14</td> <td>14</td> </tr> <tr> <td>C</td> <td>12</td> <td>14</td> <td>-</td> <td>6</td> </tr> <tr> <td>D</td> <td>18</td> <td>14</td> <td>6</td> <td>-</td> </tr> </tbody> </table>	O/D	A	B	C	D	A	-	10	12	18	B	10	-	14	14	C	12	14	-	6	D	18	14	6	-	K3 Applying	CO3	5
O/D	A	B	C	D																									
A	-	10	12	18																									
B	10	-	14	14																									
C	12	14	-	6																									
D	18	14	6	-																									

Sell Sekhwa BA
Course In charge

U. Kelle
Professor & Head
Head of the Department
Department of Planning
K. S. G. Institute of Technology
K. S. School of Engineering & Technology
Bangalore-560044



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109

DEPARTMENT OF CIVIL ENGINEERING

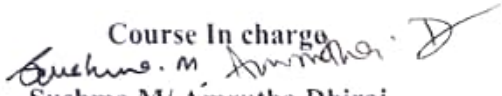
SESSION: 2021-2022 (ODD SEMESTER)

ASSIGNMENT-3

Batch	2018-2022
Year/Semester/Section	IV/ VII/A
Course Code/Title	18CV 71- Quantity Surveying and Contracts Management
Name of the Course In charge	Sushma M & Amrutha Dhiraj

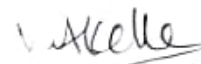
Sl. No.	Assignment Questions	K Level	CO	Marks
1	Write the specifications for the following: a. Earth work excavation in foundation b. Burnt Brick masonry in CM 1:6	K1 Remembering	CO4	2
2	Write the specifications for the following: a. RCC 1:2:4 for roof slab b. Plastering in CM 1:6	K1 Remembering	CO4	2
3	Calculate the rate analysis for the following: a. Random rubble masonry in CM 1:6 in foundation b. Brick work in CM 1:6 for super structure	K3 Applying	CO4	2
4	Calculate the rate analysis for the following: a. 12mm thick plastering in CM 1:3 b. RCC work for beam in CC 1:1.5:3	K3 Applying	CO4	2
5	Calculate the rate analysis for the following: a. Cement Pointing 1:2	K3 Applying	CO4	2
6	Define (i) Obsolescence (ii) Mortgage (iii) Scrap Value (iv) Market Value Leasehold property.	K1 Remembering	CO5	1
7	Explain (i) Sinking fund (ii) Depreciation.	K2 Understanding	CO5	1
8	What is valuation? Explain the purpose of valuation.	K2 Understanding	CO5	1
9	A person has purchased a plot of land costing Rs. 8,00,000/- and has constructed a building there on at a total cost of Rs. 20 lakh including water supply, sanitary and electrical installation etc. Allowing a net return @ 7% on the cost of construction and @ 5% net return on the cost of land, calculate the standard rent of the property with the following	K3 Applying	CO5	1

	data: (i) Sinking fund on 4% basis for the future life of 75 years = 0.0022 (ii) Annual maintenance 0.5% of the cost of construction (iii) Municipal taxes and other outgoings @28% of the net return on building.			
10	A building is situated by the side of a main road. The built-up portion is 20mx 15m. The building is of first-class type and provided with water supply, sanitation, and electric fitting. Age of the building is 30 years. Determine the value of the property. Area of land on which building stands is 500m ² . Assume plinth area rate as Rs 20,000/m ² , life of the building 100 years and cost of land. Rs. 2,500/m ² .	K3 Applying	CO5	1

Course In charge

 Sushma M/ Amrutha Dhiraj

Note:

1. Kindly mail the answer scripts to e-mail ID: qscm.2021@gmail.com
2. Name the file as USN- Assignment 3


 Head of the Department
 Professor & Head
 Dept. of Engineering
 Dr. Vijayakshmi Akella
 K.S. Group of Institutions
 K.S. School of Engineering & Management
 Bangalore-560 062.



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109

DEPARTMENT OF CIVIL ENGINEERING

SESSION: 2021-2022 (ODDSEMESTER)

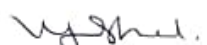
ASSIGNMENT-III


Academic Year	2021-2022
Batch	2018-2022
Year/Semester/Section	3 rd / VII / Civil Engineering
Course Code-Title	18CV732-Air Pollution and Control
Name of the Course In charge	Dr. Vyshali

Assignment No: 3		Total marks:20		
Date of Issue: 13-01-2022		Date of Submission:20-01-2022		
Sl. No.	Assignment Questions	K Level	CO	Marks
1.	With a neat sketch explain the principle, construction and working of a settling chamber.	K2 Understanding	CO4	2
2.	Explain the following with neat sketches: i. Baffle type separator ii. Louvre type separator iii. Dust traps	K2 Understanding	CO4	2
3.	With a neat sketch explain the cyclone separator.	K2 Understanding	CO4	2
4.	Discuss the operating mechanism of electrostatic precipitator.	K2 Understanding	CO4	2
5.	Explain types of scrubbers.	K2 Understanding	CO4	2
6.	Explain the following: i. Exhaust emissions ii. Crank-case emissions iii. Evaporative emissions	K2 Understanding	CO5	2
7.	Discuss the control of exhaust emissions.	K2 Understanding	CO5	2
8.	Explain the types of noise.	K2 Understanding	CO5	2
9.	Discuss the effects of noise pollution.	K2 Understanding	CO5	2
10.	Discuss the control and preventive measures for noise pollution	K2 Understanding	CO5	2

Note:

1. Convert the assignment answer script to PDF format and put your USN number as your file name.
2. Send the file to the following E-Mail Id : vyshali@kssem.edu.in


Course In charge


Head of the Department

Professor & Head
Dept. of Civil Engineering
K.S. Group of Institutions
K.S. School of Engineering & Management
Bangalore-560062



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109

DEPARTMENT OF CIVIL ENGINEERING

SESSION: 2021-2022 (ODD SEMESTER)

ASSIGNMENT-3

Batch	2021-2022
Year/Semester/Section	IV/VII A
Course Code/Title	Urban Transport Planning/ 18CV745, 17CV751, 15CV751
Name of the Course In charge	Mrs Saisushma B A

Assignment No: 3 Date of Issue: 14-01-2022		Total marks:15 Date of Submission: 24-01-2022														
Sl. No.	Assignment Questions	K Level	CO	Marks												
1.	Write a note on opportunity models in trip distribution analysis.	K1 Remembering	CO4	5												
2.	List the different synthetic methods of trip distribution. Explain gravity model in detail.	K2 Understanding	CO4	5												
3.	Define modal split. Explain the various factors affecting modal split.	K2 Understanding	CO4	5												
4.	Draw a flow chart for pre distribution and post distribution modal split. Outline the recent developments in modal split.	K2 Understanding	CO4	5												
5.	<p>The total trips produced in and attracted to the three zones A, B & C of a survey area in the design year are tabulated below</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Trips produced</th> <th>Trip attracted</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>2000</td> <td>3000</td> </tr> <tr> <td>B</td> <td>3000</td> <td>4000</td> </tr> <tr> <td>C</td> <td>4000</td> <td>2000</td> </tr> </tbody> </table> <p>It is known that the trips between the two zones are inversely proportional to the second power of the travel time between zones, which is uniformly 20minutes. if the trip interchange between zones B & C is known to be 600, calculate the trip interchange between zones A&B, A&C, B&A, C&A, C&B.</p>	Zone	Trips produced	Trip attracted	A	2000	3000	B	3000	4000	C	4000	2000	K3 Applying	CO4	5
Zone	Trips produced	Trip attracted														
A	2000	3000														
B	3000	4000														
C	4000	2000														

6.	Define traffic assignment. What are the purpose applications of traffic assignment?	K1 Remembering	CO5	5
7.	What are the traffic assignment techniques? Explain any two in detail.	K2 Understanding	CO5	5
8.	Write a note on land use planning model.	K2 Understanding	CO5	5
9.	Write a short note on Lowry land use model.	K2 Understanding	CO5	5
10.	Draw a flow chart of land use and transportation.	K2 Understanding	CO5	5

Dr. Sushree B A
Course In charge

S. Akella
Head of the Department

K.S. 201