Roll No. | | | | | | | | | | |

ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. (Full Time) - END SEMESTER EXAMINATIONS, NOV/DEC 2023

GEOINFORMATICS
Semester - VII
GI5005 Transportation Geoinformatics

(Regulation 2019)

Time: 3hrs Max.Marks: 100

CO 1	Understand various highway geometric elements and surveys carried out for highway alignment
CO 2	Understand the factors involved in urban transportation planning
CO 3	Able to apply remote sensing technique for transportation problems
CO 4	Applying GIS for transportation analysis
CO 5	Gaining knowledge on latest developments in transportation planning

BL – Bloom's Taxonomy Levels
(L1 - Remembering, L2 - Understanding, L3 - Applying, L4 - Analysing, L5 - Evaluating, L6 - Creating)

PART- A (10 x 2 = 20 Marks)
(Answer all Questions)

Q. No	Questions	Marks	CO	BL
1	State the classification of rural roads.	2	1	L2
2	What is meant by overtaking sight distance?	2	1	L3
3	Brief the effects of traffic congestion.	2	2	L2
4	What are the challenges in transportation modelling?	2	2	L2
5	Suggest suitable resolution of satellite imagery for urban sprawl study.	2	3	L4
6	Brief the applications of remote sensing products in parking studies.	2	3	L3
7	What are different types of traffic network flows?	2	4	L2
8	Brief the shortest path algorithm used in GIS network analysis.	2	4	L3
9	State any four landuse transport interaction models.	2	5	L3
10	What are the advantages of integration of ITS with GIS?	2	5	L2

PART- B (5 x 13 = 65 Marks)

Q. No	Questions	Marks	CO	BL
11 (a)	Discuss the purpose of providing any four highway geometric elements.	13	1	L3
	OR			
11 (b)	Brief the applications of PIEV theory in design of highway geometric elements.	13	1	L3
12 (a)	Analyse the influence of vehicular traffic on environment.	13	2	L4
	OR			
12 (b)	Discuss the different types of travel surveys conducted in urban transportation planning studies.	13	2	L4

13 (a)	Describe the vehicle tracking process by remote sensing.	**13**	3	L2
	OR			
13 (b)	Describe the procedure of conducting accident study by remote sensing.	**13**	3	L2
14 (a)	Draft the contents of GIS database for highway alignment.	**13**	4	L2
	OR			
14 (b)	Draft the contents of GIS database for urban road maintenance.	**13**	4	L2
15 (a)	Explain the components of ITS Architecture.	**13**	5	L3
	OR			
15 (b)	Explain the user requirements of ITS.	**13**	5	L3

PART- C (1 x 15 = 15 Marks)

(Q.No.16 is compulsory)

Q. No	Questions	Marks	CO	BL
16.	Critically analyse the advantages and disadvantages of using remote sensing data in road alignment.	**15**	5	L5