Hall Ticket Number:

Code No. : 15157 N (A)

VASAVI COLLEGE OF ENGINEERING *(AUTONOMOUS)*, HYDERABAD
Accredited by NAAC with A++ Grade

B.E. V–Semester Main Examinations, Jan./Feb.-2024
Spatial Information Technology (OE-III)

Time: **3 hours**   Max. Marks: **60**

*Note: Answer all questions from **Part-A** and any **FIVE** from **Part-B***

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	List out different agencies in India working for Remote sensing.	2	1	1	1
2.	What are the different platforms on which Remote sensors are placed?	2	1	1	1
3.	Explain the terms Apogee and Perigee.	2	1	2	1
4.	What is swath of a satellite? How the swath is related to Resolution.	2	2	2	1,5
5.	Expand NAVSTAR GPS and what is the constellation size of GPS.	2	1	3	1
6.	Name the different Control segments in GPS to till date and their locations.	2	1	3	1
7.	Explain any two applications of GIS and GPS integration.	2	2	4	1,5
8.	Differentiate between GPS and GIS.	2	2	4	1,5
9.	List the advantages of using GIS in different fields.	2	1	5	2
10.	Differentiate between Spatial data and Attribute Data.	2	2	5	1,2
Part-B (5 × 8 = 40 Marks)					
11. a)	Differentiate between Active and passive Remote sensing.	5	2	1	1,12
b)	Explain different Energy sources in Remote sensing	3	2	1	1
12. a)	Explain Spatial, Spectral, Temporal and Radiometric Resolution.	5	3	2	1,2
b)	Explain the LANDSAT satellite Programme.	3	1	2	1,2,12
13. a)	Compare the GLONASS, GALILEO and IRNSS Satellite systems.	5	3	3	1,12
b)	Explain the working principle of GPS.	3	2	3	1,2
14. a)	List different types of Errors in GPS and Explain any three errors in detail.	5	3	4	2,3
b)	What is Augmentation System and Explain SBAS?	3	3	4	3

			M	L	CO	PO
15.	a)	List and explain different components of GIS.	4	1	5	2
	b)	Differentiate between Vector and Raster form of Data representation in GIS.	4	3	5	1,12
16.	a)	Explain Atmospheric windows in the EMR spectrum and list the regions and wavelengths in the EMR spectrum coming under atmospheric windows.	4	3	1	1,2
	b)	Compare Geo-synchronous, Polar and Sun synchronous satellite orbits.	4	3	2	1,12
17.		Answer any *two* of the following:				
	a)	Briefly explain the important stages in the evolution of NAVSTAR GPS.	4	2	3	1,12
	b)	Explain different ways in which the accuracy in the GPS position is determined.	4	3	4	2,3
	c)	Write a short note on DBMS in GIS.	4	3	5	2,3

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	21.25%
ii)	Blooms Taxonomy Level – 2	30%
iii)	Blooms Taxonomy Level – 3 & 4	48.75%

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