

Hall Ticket Number:

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Code No. : 17153 (B) N/O

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD*Accredited by NAAC with A++ Grade***B.E. (Civil Engg.) VII-Semester Main & Backlog Examinations, Dec.-23/Jan.-24****Geo-informatics (PE-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 the technologies involved in Geoinformatics.	2	1	1	1,5
2.	Define the term map and list out the elements of a map.	2	1	1	1
3.	Write the SQL commands for data definition in GIS.	2	1	2	1,5
4.	List out data input methods of GIS data.	2	1	2	1,5
5.	Name the data base structures used for Non spatial data analysis.	2	1	3	1,5
6.	List out the operators used in overlay of vector based system.	2	1	3	1,5
7.	Differentiate between active and Passive sensors of satellite Remote sensing.	2	2	4	1,5
8.	Indicate the values of forward and lateral overlap required for a stereo pairs to get a 3D view of the objects.	2	1	4	1,5
9.	Define the term Pseudo range.	2	1	5	1
10.	Briefly explain the selective availability.	2	2	5	1,5
Part-B (5×8 = 40 Marks)					
11. a)	Name and Indicate the process of converting a three dimensional surface information in to a two dimensional information. Explain in detail the different processes with suitable examples.	6	3	1	1,5
b)	Differentiate between spatial and Non spatial data of GIS.	2	3	1	1,5
12. a)	Explain in detail advantages and disadvantages of vector and Raster format representation of spatial data.	5	3	2	1
b)	Briefly explain about the different sources of errors encountered in using GIS at different stages.	3	3	2	1,5
13. a)	Apply geographical information system (GIS) technology to solve one of the area in Soil mechanics. Explain stepwise procedure along with a flow chart.	4	3	3	1,5,6
b)	Illustrate with suitable examples overlay operations in Rastar based system.	4	3	3	1,5

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14. a)	Explain geometric and radiometric distortions with reference to satellite remote sensing imagery.	4	2	4	1,5
b)	i) Differentiate between metric and non metric cameras. ii) Differentiate between vertical and tilted photographs.	2	2	4	1,5
15. a)	Differentiate between point positioning and Differential positioning in GPS.	4	2	5	1,5
b)	Explain in details about signal structures and, code modulation used in GPS.	4	2	5	1,5
16. a)	Explain the application of Geoinformatics in any two fields of civil engineering. Justify the same.	4	3	1	1,5,6
b)	Justify when edge matching and mosacing function can be used in GIS.	4	3	2	1,5
17.	Answer any <i>two</i> of the following:				
a)	Digital elevation model	4	2	3	1,5
b)	Lidar systems and its applications.	4	2	4	1,5
c)	Differentiate between spaced based and Ground based augmentation system.	4	2	5	1,5

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

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	40%
iii)	Blooms Taxonomy Level – 3 & 4	40%
