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Code No. : 13110 GIS

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
B.E. (CBCS) III-Semester Main Examinations, December-2017

Geographical Information Systems

Time: 3 hours

Max. Marks: 70

Note: Answer ALL questions in Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

1. What do you mean by coordinate transformation?
2. Define GIS.
3. List any four standard GIS softwares.
4. Define attribute data.
5. Name three basic raster data structures used in GIS.
6. Differentiate between rasterization and vectorization.
7. Name the different geoprocessing operations carried out for vector data.
8. What do you mean by cost path analysis?
9. What is line coordinate thinning?
10. What is conflation?

Part-B (5 × 10 = 50 Marks)

11. a) Define map projection. Why is map projection necessary in map making? [4]
b) Write the major application areas and uses of Geographic Information System. [6]
12. a) What are the different types of map projection families classified based on geometric distortions? [5]
b) Discuss briefly the five key components of GIS. [5]
13. a) Compare and contrast the raster and vector data model. [6]
b) How are scanners used for capture of spatial data? [4]
14. a) Describe the characteristics of DBMS. [5]
b) Explain digitization process and write its advantages. [5]
15. a) Write short notes on buffering. [6]
b) Discuss briefly the different attribute data analysis functions. [4]
16. a) What is overlay operation in GIS? [6]
b) Discuss briefly the horizontal data organization in GIS. [4]
17. Answer any *two* of the following:
a) What type of answers can GIS give? [5]
b) What do you mean by object based data model in GIS? [5]
c) Write short notes on DEM. [5]

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