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B.E / B.Tech (Part Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2013

CIVIL ENGINEERING

VI Semester

PTCE 059/ PTCE 536 GEOGRAPHICAL INFORMATION SYSTEM

(Regulation 2005)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. List out the different types of maps.
2. What four conditions must an ideal distortion-free map satisfy?
3. Why are database management systems so important?
4. State any four open source GIS software.
5. Distinguish between raster data and vector data.
6. What are the four main stages of data input in GIS?
7. What is meant by Digital Elevation Model?
8. What is non-spatial data? Give two examples.
9. State any four spatial data used in land information system.
10. What is meant by cadastral map?

Part – B (5 x 16 = 80 marks)

11. Explain the specifications of the Universal Transverse Mercator projection.
12. a) Explain the role of various components of GIS.
OR
b) Discuss the limitations that computer coding imposes on spatial data structuring.
13. a) Explain the use of data models with examples.
OR
b) What steps would you take to limit the introduction of errors in the digitizing and the scanning of spatial data?
14. a) What are the basic classes of operations in spatial analysis? Explain.
OR
b) Summarise the attributes that can be computed from DEMs and their applications.
15. a) Explore the advantages of using GIS based model for ecological studies.
OR
b) Describe the spatial and non-spatial data required for a highway realignment project.