FACULTY OF ENGINEERING

B.E. 4/4 (Civil.) I-Semester (Main) Examination, November / December 2012

Subject : Geographical Information System
(Elective-I)

Time : 3 Hours   **Max. Marks: 75**

Note: Answer all questions of Part - A and answer any five questions from Part-B.

PART – A (25 Marks)

1. Briefly explain the components of Geographical Information System.   (2)
2. Discuss the common coordinate system in spatial data.   (2)
3. What is the difference between a database and a database management

   system?   (3)
4. Distinguish between data acquisition and data analysis.   (3)
5. Explain why digitization is necessary.   (2)
6. What is buffer ? And give its advantages.   (3)
7. Write down the limitation of satellite remote sensing.   (3)
8. Differentiate between attribute data and spatial data.   (2)
9. Define the spectral signatures.   (2)
10. Briefly explain about the overlay analysis.   (3)

PART – B (5x10=50 Marks)

11. (a) Explain the application of GIS in watershed Development.   (5)
    (b) Discuss the spatial database management with relevance to GIS.   (5)

12. (a) What do you mean by digital elevation data and data compression?   (5)
    (b) Define the data Acquisition and data Interaction and data processing. (5)

13. (a) Differentiate between the vector data models and raster data models.   (5)
    (b) What is meant by scattering? Explain its types with neat sketches.   (5)

14. Briefly explain the type of Geometric and radiometric correction and also
    discuss about the merits and demerits.   (10)

15. Briefly explain the electromagnetic spectrum and draw the spectral
    reflectance curves of earth's surface features.   (10)

16. What is database management structure (DBMS) ? Briefly explain about
    its types with examples.   (10)

17. Write short note on the following: (10)
    (a) Explain the different types of platforms used in remote sensing
    (b) What are the main issues to be considered by users of large corporate
        GIS data bases?
    (c) Overlay analysis

*****