

Total No. of Questions : 12]

SEAT No. :

P1446

[4759]-202

[Total No. of Pages : 3

B.E. (Information Technology)

GEO INFORMATICS SYSTEM

(2008 Pattern) (Semester - II) (Elective -IV)

Time : 3 Hours]

[Max. Marks :100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate books.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*
- 4) Assume suitable data, if necessary.*

SECTION - I

- Q1)** a) Explain the methods to correct pixel misplacement errors in remotely sensed images? **[10]**
- b) Explain how basic element of image interpretation performs their role in image processing? **[8]**

OR

- Q2)** a) Explain in detail the phases of digital image processing? **[10]**
- b) Discuss in detail the major differences between global and local methods of interpolation? **[8]**
- Q3)** a) What is imaging sensor system? Give detailed classification? **[8]**
- b) Describe in detail spatial resolution and spectral resolution with example? **[8]**

OR

P.T.O.

- Q4)** a) List any six applications of RADAR and explain any one in detail? [8]
b) Explain SLAR and SAR in detail? [8]
- Q5)** a) What is GIS? Explain GIS work flow in detail with example? [8]
b) Explain web-based GIS? What are the major issues which need to be addressed at the time of designing web-based GIS? [8]

OR

- Q6)** a) Define GIS? List and explain terminologies in GIS with example? [8]
b) What is cartographic model? Explain the major stages involved in cartographic modelling? [8]

SECTION - II

- Q7)** a) What is the need of transformation? Explain translation, scaling and rotation in detail? [10]
b) Explain the errors and its impact of GIS data? [6]

OR

- Q8)** a) Explain each of the following w.r.t. spatial statistics: [10]
i) Random and Independent variable
ii) Probability density and joint probability distribution.
b) Explain the factors affecting quality of GIS data? [6]
- Q9)** a) “Raster is faster, but vector is corrector”, Justify? Write the respective strengths and weakness of raster and vector data structures in GIS. [8]
b) Give the classification of data in GIS. Explain with example? [8]

OR

Q10)a) What is raster GIS model? Explain GRID, IMGRID and MAP raster model in detail? [8]

b) Explain in detail layer based GIS data management approach with example? [8]

Q11)a) Explain how GIS can be used for disaster management? Assume suitable data? [10]

b) Explain in detail GIS application, design and development? [8]

OR

Q12)a) Explain how GIS can be used for vehicle routing and scheduling by municipal corporation? Assume suitable data? [10]

b) Explain the role of GIS database in GIS projects design in detail? [8]

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