Total No. of Questions : 12]

SEAT No. :

P1446

[Total No. of Pages : 3

[4759]-202

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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