

Total No. of Questions : 6]

SEAT No. :

P3162

[Total No. of Pages : 3

[4859] - 25

**B.E. (Civil) (Semester - II)**

**Geoinformatics**

**(Open Elective) (2008 Pattern)**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

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

**SECTION - I**

**Q1) a)** Define resolution and explain any 2 types. **[8]**

b) Explain EMR. State the characteristics of different frequencies. **[8]**

OR

a) Describe characteristics of LANDSAT 1 , 2 & 3. **[8]**

b) What are the elements of Visual Image Interpretation? Explain their significance and factors influencing them. **[8]**

**Q2) a)** Write a note on: **[8]**

i) Image Rectification.

ii) Geo referencing.

b) What is false colour composite (FCC) Images? What are its advantages? **[8]**

OR

a) Explain Supervised and Unsupervised Classification. **[8]**

b) Explain any two satellite images and its application. **[8]**

**P.T.O.**

- Q3)** a) “Geometric” Corrections in Images under processing. [8]  
b) Describe characteristics of IR Images. [10]

OR

- a) What is Digital Image processing and briefly explain its application. [10]  
b) Write a note on ‘System Pour 1’ Observation de la Terre. [8]

### **SECTION - II**

- Q4)** a) What is ‘MAP’? Describe different types of maps in brief. What are its limitations? [8]  
b) Explain: [8]  
i) Vector Model.  
ii) Resolution.

OR

- a) Define GIS. Explain in detail its components. [8]  
b) Write a note on: [8]  
i) Data types in DBMS.  
ii) Attributes.

- Q5)** a) Explain any one GIS software’s and write a detail account on its Modules. [8]  
b) What is RDBMS? Explain the normal form with one example. [8]

OR

- a) Write a note ‘Buffering’. [8]  
b) Describe ‘Raster’ data structure. Write advantages and disadvantages. [8]

- Q6) a)** Explain application of Geo Informatics in following areas: **[10]**
- i) Geotechnical Engineering.
  - ii) Water Resource management through canal irrigation.

- b) Write a brief note on “Role of GIS in Terrain Analysis”. **[8]**

OR

- a) Explain application of Geo Informatics with working flow charts in following areas: **[10]**

i) Road Survey and Investigations.

ii) Infrastructure Development.

- b) Write in detail Satellite Data acquisition. **[8]**

