

Total No. of Questions : 6]

SEAT No. :

[Total No. of Pages :2

**P2654**

**[5154]-25**

**B.E. (Civil)**

**Geoinformatics**

**(2008 Course) (Semester-II) (Open Elective) (401008 DB)**

*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 side indicate full marks.*
- 5) Assume Suitable data if necessary.*

**SECTION-I**

**Q1) a)** Explain EMR. State the characteristics of different frequencies. **[8]**

b) Define resolution and explain any 2 types. **[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)** What is false colour composite (FCC) Images? What are its advantages? **[8]**

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

- i) Image Rectification.
- ii) Geo referencing.

OR

a) Explain supervised and Unsuperivised Classification. **[8]**

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

**Q3) a)** Describe characteristics of IR images. **[10]**

b) “Geometric” Corrections in Images under processing. **[8]**

OR

**P.T.O.**

- 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]

