SEAT No. :

P4925

[4959]-25
B.E. (Civil)
(B) : 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) 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 Unsupervised Classification. **[8]**

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

P.T.O.

Q3) a) Describe Characteristics of IR Images. **[10]**

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

<div align="center">OR</div>

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]**

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SECTION - II

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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

<div align="center">OR</div>

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]**

<div align="center">OR</div>

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]**

<div align="center">OR</div>

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]**

<div align="center">OOO</div>