



Total No of Questions: [12]

SEAT NO. :

[Total No. of Pages : 02]

B.E. 2008 (Information Technology)

Geo Informatics System

(Elective - IV) (Semester - II)

Time: 3 Hours

Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate answer books.
- 2) Answer three questions from each section.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right side indicate full marks.
- 5) Use of Calculator is allowed.
- 6) Assume Suitable data if necessary

SECTION I

Q1)	a)	Explain in detail image Enhancement, Registration and Classification and Analysis?	[10]
	b)	Explain logarithmic and exponential contrast stretch in detail?	[8]
		OR	
Q2)	a)	Which are various factors that can affect the remotely sensed digital image? Explain in detail the technique used to make these affected images smooth?	[10]
	b)	Explain each basic element of image interpretation with diagram and its role in Image Processing?	[8]
Q3)	a)	Explain remote sensing process in detail? Explain linking process of RS with GIS in brief?	[8]
	b)	Explain in detail all satellite system parameters and their significance in remote sensing?	[8]
		OR	
Q4)	a)	Explain RADAR basic principle? Explain any application of RADAR?	[8]
	b)	Draw and explain in detail the wave model of electromagnetic radiation?	[8]
Q5)	a)	Explain how map projection used in GIS to generate maps based on geo spatial information? Assume suitable geo information and apply map projection?	[8]
	b)	Draw and explain the architecture of GIS system?	[8]
		OR	
Q6)	a)	Explain Arch hydro data model in detail with neat block diagram?	[8]
	b)	What is map projection? List and explain the issues in designing the maps?	[8]

SECTION II

Q7)	a)	What is affine transformation? Explain the three operations applied on the remotely sensed images?	[10]
	b)	Explain the errors in GIS data with suitable example in detail?	[6]
		OR	
Q8)	a)	Explain the method used to restore the geometrically distorted images? Write the suitable equations and draw the diagrams?	[10]
	b)	Explain quality factor of GIS data in detail? Write Harwood's short law on data?	[6]

Q9)		Explain the following terms	[18]
	a)	Graph representation of Spatial data	
	b)	Vector and Raster data representation	
	c)	Types of data in GIS	
		OR	
Q10)		Explain the following terms	[18]
	a)	GIS data model	
	b)	Vector and Raster GIS Model	
	c)	GIS database integration	
Q11)	a)	Explain the steps which may be followed by Municipal corporation to implant LPG gas pipeline system in the city? Assume suitable data?	[10]
	b)	Explain in detail which components support GIS Application Design and Development?	[6]
		OR	
Q12)	a)	Explain in detail the step by step use of GIS towards water supply planning and management in the city?	[10]
	b)	Explain how GIS Database Design, Development, and Integration strengthen GIS projects designing?	[6]