Total No. of Questions : 8]

SEAT No. :

P4228

[Total No. of Pages : 2

[4860]-610

M.E. (Civil) (WREE)

C - REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM FOR WATER RESOURCES MANAGEMENT

(Elective - II) (Semester - I) (501605) (2012 Pattern)

Time : 3 Hours] *[Max. Marks : 100*

Instructions to the candidates:

1) ***Answers to the two sections should be written in separate answer books.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right side indicate full marks.***
4) ***Use of calculator is allowed.***
5) ***Assume suitable data if necessary.***
6) ***All questions are compulsory.***

SECTION - I

Q1) a) Write an essay on Fundamentals of Remote Sensing System. **[5]**

b) Discuss the principles of photogrammetry and its applications in water resources. **[5]**

c) Write a note on Electromagnetic Spectrum. **[3]**

Q2) a) Discuss in detail the interaction of EMR with 'Atmosphere'. **[4]**

b) State and explain the Displacement Law. **[4]**

c) Describe the stages of Remote Sensing with neat sketch. **[3]**

Q3) a) Discuss the important advantages of vertical and oblique aerial photographs. **[3]**

b) State the elements of image interpretation in short. **[5]**

c) What are FCC images? Write its advantages. **[5]**

Q4) a) Discuss various characters of IR images. **[3]**

b) Discuss the ORTHO rectification method. **[5]**

c) Write a note on Concept of Analog and Digital System. **[5]**

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SECTION - II

Q5)	a)	Write in brief the Components of GIS.	**[5]**
	b)	Describe in brief Geographical Information System (GIS)	**[5]**
	c)	Discuss in short buffering.	**[3]**
Q6)	a)	Write a note on Raster Data Structure.	**[4]**
	b)	What are Map Projections?	**[4]**
	c)	Describe Supervised and unsupervised classification.	**[3]**
Q7)	a)	Describe Spatial and Attribute Database.	**[3]**
	b)	Discuss Errors in GIS.	**[5]**
	c)	Write an essay on Data collection and input processing in G.I.S	**[5]**
Q8)	a)	Explain RS application in Open Canal Conduit with flow chart.	**[3]**
	b)	Write in short the software's used in GIS for water Resources.	**[5]**
	c)	Explain in brief 'DEM'.	**[5]**