

Printed Pages : 3



EAG032

(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 180852**

Roll No.

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**B. Tech.**

(SEM. VIII) THEORY EXAMINATION, 2014-15  
**REMOTE SENSING & GIS APPLICATION**

Time : 3 Hours]

[Total Marks : 100

**Note :** Attempt **all** questions.

**SECTION – A**

1 Attempt any **four** parts of the following : **10×2=20**

- (a) Define Remote Sensing. What is the most familiar type of Remote Sensor ?
- (b) Define G.I.S. and list basic components of it.
- (c) Give any six advantages of remote sensing.
- (d) What is a 'Radiometer' ? For what purposes it is used ?
- (e) Write short note on "Data Structure".
- (f) What are the stages in remote sensing ?
- (g) What do you understand by visibility of objects ?
- (h) By giving any six role of remote sensing in soil conservation survey.

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- (i) What do you understand by Satellite ? Give the repeat periods of I.R.S. and Landsat Satellite.
- (j) What is the 'Tone on imagery' refers to ? Point out in brief.

### **SECTION – B**

**2** Attempt any **four** parts of the following : **10×3=30**

- (a) Discuss the working of a Scanner. What do you understand by M.S.S. mirror and what swath does it oscillates ?
- (b) What do you understand by visual image interpretation ? Under what basic principles this operation is carried out ?
- (c) What is the difference between "sensor" and "satellite" ? What are their types ? Explain in detail.
- (d) Describe a digital image. Also explain the computer assisted operations carried out in the digital image processing.
- (e) How will you proceed for aerial photo interpretation for water resources development ?

### **SECTION – C**

**3** Attempt **all** parts of the following : **10×5=50**

- (a) Discuss in detail the "Basic elements (characteristics) of visual image interpretation.

**OR**

What are the techniques of image interpretation ?  
Also discuss the factors of interpretability.

- (b) Explain the "Data base Management System" in detail with the help of flow chart.

**OR**

Explain the various data formats commonly used in GIS. How will you enter data in computer digitizer ?

- (c) What is the standard G.I.S. Packages commonly used ? For which purposes they are used ?

**OR**

What is the historical development of GIS ? Also explain the non-spatial data structures.

- (d) Discuss the microwave radiometry for monitoring agricultural crops and hydrologic forecasting.

**OR**

Discuss the aerial photo interpretation for water resources development.

- (e) Differentiate between "Modern remote sensing technology and conventional aerial photography.

**OR**

What are the basic principles of image interpretation ? Explain the factors governing the quality of an image.

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