

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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[Contd...

- (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.
