

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

PAPER ID :

Roll No.

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B.TECH.

Theory Examination (Semester-VIII) 2015-16

REMOTE SENSING & GIS APPLICATION

Time : 3 Hours

Max. Marks : 100

Note : Attempt all questions. Each question carries equal marks.

SECTION-A

1. Attempt all parts of the following : (2X10=20)

- (a) Which form of energy transfer is suitable for Remote sensing?
- (b) What is meant by atmospheric window?
- (c) Give two differences between broom and whisk broom sensors.
- (d) Define spectral Resolution.
- (e) How do you classify the data products based on level of processing?
- (f) Define Histogram.
- (g) Define NDWI.
- (h) Compare the GIS and manual methods of map handling.
- (i) List the factors which affect the quality of DEM products.
- (j) What is meant by logical consistency?

SECTION-B

2. Attempt any five parts of the following : (5X10=50)

- (a) How will you carry out Bio-energy Assessment using GIS based crop Model precisely?
- (b) State the need for map projection and compare the different types of projection.
- (c) Define GIS and explain the software component of GIS.
- (d) Explain in detail the significance of various resolutions in the satellites?
- (e) Classify the data products from satellites based on level of processing and data formats.
- (f) Explain non linear contrast enhancement of the digital image.
- (g) Discuss the techniques adopted in Reservoir sedimentation estimation using digital image processing.
- (h) Differentiate sun synchronous and Geo synchronous satellites.

SECTION-C

Attempt any two parts of the following : (2X15=30)

3. Explain any methodology adopted for Evapotranspiration estimation using remote sensing images.
4. Explain in detail, the process of passive microwave and active microwave remote sensing.
5. Demonstrate the application of the different kind of GIS maps for mapping monitoring and modeling the Agricultural resources and process.

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