

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Forestry 2015 Admission

IIIrd Semester Final Examination- March-2017

Cat. No: Wild.2103.

Marks: 50.00

Title: Remote Sensing and GIS (1+1)

Time: 2 hours

I Choose the correct Answer/Define the following

(10x1=10)

1. In electromagnetic spectrum visible range is between.
a) 0.1 to 0.5 b) 0.4 to 0.7 c) 1 to 4 d) 10 to 40
2. Best season for taking aerial photography of teak is
a) April – May b) June – July c) September – October d) February - March
3. The techniques of making measurements from photos or image data is called-----
a) Photogrammetry b) Cartography c) Digital image processing d) GIS
4. Suspended sediments in a water body ----- the spectral reflectance
a) Increase b) Decrease c) Remains same d) Reflects
5. The intensity of EMR reflected from a surface depends.
a) Frequency b) Wavelength c) Radiation d) Surface roughness
6. Remote sensing
7. Spatial and non spatial data
8. Aerial photography
9. Photogrammetry
10. Platforms

II Write short notes on any FIVE

(5x2=10)

1. Digital image processing.
2. Spectral reflectance curves of vegetation, soil and water.
3. Atmospheric Windows.
4. Scale and its determination in aerial photos.
5. Raster and vector data
6. How do you estimate tree height using aerial photographs?
7. Differentiate between Whisk broom and push broom scanners.

III Write short answers on any FIVE

(5x4=20)

1. Give a detailed note on the applications of Remote Sensing and GIS in forest cover mapping and fire damage assessment.
2. Explain the elements of visual image interpretation.
3. Discuss the details of the electromagnetic spectrum.
4. Write a short note on a. Platforms b. Topology
5. Describe the components, functional elements and benefit of GIS.
6. What do you mean by thermal and Microwave Remote Sensing? Enumerate its application in forestry.
7. Give a detailed note on the different types of scattering.

IV Write essay on any ONE

(1x10=10)

1. Discuss the concepts, principles and application of remote sensing and GIS. How they can effectively be used in forestry?
2. Discuss in detail the different aspects of digital image processing.
