

**M. Sc. (Geoinformatics) SEM-II (CBCS) (2013 Course) : WINTER - 2018**

**SUBJECT: ADVANCED REMOTE SENSING**

Day: Wednesday  
Date: 14/11/2018

**W-2018-1242**

Time: 02.00 PM TO 05.00 PM  
Max Marks. 60

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**N.B.**

- 1) Answer any **FIVE** questions.
  - 2) Figures to the right indicate **FULL** marks.
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- Q.1** a) Explain the principles of synthetic aperture radar system. (06)  
b) Write a note on foreshortening in radar image. (06)
- Q.2** a) Describe biomass estimation using LIDAR. (06)  
b) Write a note on image end members. (06)
- Q.3** a) Describe LIDAR data characteristics. (06)  
b) Discuss slant range vs ground range radar image geometry. (06)
- Q.4** a) Describe any two hyperspectral mapping techniques. (06)  
b) How does surface roughness of the terrain influence radar backscatter? (06)
- Q.5** a) Give a diagrammatic description of the various steps involved in hyperspectral image analysis. (06)  
b) Write a note on range and time travel measurements in LIDAR. (06)
- Q.6** Write short notes on any **THREE** (12)  
a) Factors controlling tones of radar imagery  
b) Applications of hyperspectral remote sensing  
c) Noise filtering with MNF in hyperspectral remote sensing  
d) Radar interferometry

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