



Name :

Roll No. :

Invigilator's Signature :

CS/PGDGI/SEM-1/DGI-101/2009-10

2009

PRINCIPLES OF REMOTE SENSING

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A
(Objective Type Questions)

1. State *True* or *False* for any *ten* of the following : $10 \times 1 = 10$
 - i) Visible part of the EMR lies between $0.7 \mu\text{m} - 1.0 \mu\text{m}$.
 - ii) Blue is a primary colour.
 - iii) Laser scanner can work during both day and night.
 - iv) Healthy vegetation has lower reflectance in infrared part of EMR.
 - v) Clear water absorb almost all energy incident on it in the visible part of EMR.



vi) Scale of an aerial photograph can be determined from focal length and flying height.

vii) All objects at temperature above absolute zero continuously emits radiation.

viii) Hyperspectral sensor can acquire image in numerous and very narrow spectral bands.

ix) Presence of moisture in soil increased its reflectance.

x) The sky overhead appear blue or sunny day due to scattering.

xi) IRS-P6 satellite used return beam vidicon (RBV) tube sensor.

xii) In panchromatic mode SPOT-2 satellite employed 6000 CCD array.



GROUP – B
(Short Answer Type Questions)

Answer any *three* of the following.

$3 \times 5 = 15$

2. Active and passive remote sensing.
3. What do you mean by atmospheric window.
4. Stereo pair.
5. Thermal conductivity.
6. Sun-synchronous satellite.

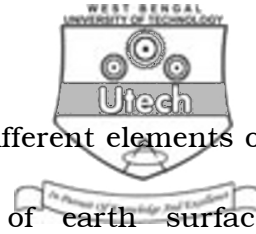
GROUP – C
(Long Answer Type Questions)

Answer any *three* of the following.

$3 \times 15 = 45$

7. Define remote sensing. What are the different stages of remote sensing ? Give their brief description with illustration.
 $3 + 4 + 8$
8. What are different remote sensing platforms ? Give their brief description with advantages and disadvantages. $5 + 10$
9. What are the different sources of image displacement in aerial photograph ? What is relief displacement ? Draw a diagram showing relief displacement of a chimney ? $4 + 4 + 7$

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10. What is image interpretation ? Describe different elements of image interpretation for identification of earth surface features.

5 + 10

11. What are the advantages of Microwave remote sensing over optical remote sensing ? Describe the working principle of a side looking airborne radar system.

7 + 8

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