

MGIS-03/PGDGI-03/CGIS-3

Remote Sensing & GPS

Master of Geographical Information System/Post Graduate
Diploma in Geographical Information
System / Certificate in Geographical Information System
(MGIS/PGDGI/CGIS-11/16/17)

First Year/First Semester, Examination 2019 (June)

Time : 3 Hours]

Max. Marks : 80

Note : This paper is of Eighty (80) marks divided into three (03) sections A, B and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION–A

(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

(2×19=38)

- 1.** Briefly explain about the three forms of interaction that can take place when energy strikes upon the surface.

2. Describe the electromagnetic spectrum with sketch.
3. What are the types of scattering signature? Explain ?
4. Explain the characteristics of landsat satellite and their sensors.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer any four (04) questions only. (4×8=32)

1. Write a short note on types of GPS.
2. What is Digital Image Processing?
3. Describe an image with its properties.
4. What is NDVI ?
5. Difference between satellite remote sensing & microwave remote sensing.
6. What do you understand by across track scanning?
7. Define atmospheric window.
8. Explain wave theory.

SECTION-C
(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory. (10×1=10)

Choose the correct answers :

1. Orbit radius of GPS satellites is approximately
(a) 15,200km (b) 26,600km
(c) 18,400km (d) 36,000km.

2. In sum light , water rich in phytoplanktons appears
(a) Red (b) Green
(c) Brown (d) Blue.

3. Depending upon the nature of the targetted object and the wavelength of the electromagnetic radiation incident on it the radiation gets:
(a) Reflected (b) Absorbed
(c) Re-radiated (d) Transmitted though
(e) All of these.

4. All bodies of teperatures above absolute zero degree emit electromagnetic radiation at different wave length is known as .
(a) Plank's law (b) Planktains law
(c) Lambert's cosine law (d) None of these.

5. First satellite of NASA was
- (a) Sputnik-2 (b) Explorer-1
(c) Sputnik-1 (d) Terra-1.
6. The arrangement of terrain features which provides attributes the shape , size and texture of objects is called
- (a) Spatial variation
(b) Temporal variation.

Write true / false

7. The two L band signals are modulated by the pseudorandom binary codes.
8. The semi-infinite snow albedo is proportional to the square root of the grain radius in the 0.4 to 0.8 μm wave length region.
9. Repetitive observations of the same area at equal interval of time are useful to monitor the dynamic phenomena.
10. If θ is the angle of scan measured from the nadir the ground distance swept by the sensor IFOV is proportional to $\sec^2\theta$?
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