MA DISASTER MANAGEMENT
Second Semester
Basics of Remote Sensing and GIS
(MDM- 06)

Duration: 3Hrs. **Full Marks: 70**

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins. **Marks: 50**

I. Answer any five from the following question: **2×5= 10**

1. Give the full form of·
   a) GPS b) LIDAR
2. Define Kinetic temperature.
3. Define Emissivity.
4. What is Thermal remote sensing?
5. What is Plateform?
6. Define Parallex?
7. What is Photogrammetry?

II. Answer any five from the following question: **3×5= 15**

1. What are the different aspects of data acquisition?
2. What are the different factors controlling radiant temperature. Give diagram in support.
3. Write a note on Sun-synchronous satellite.
4. What are the difference between Map and Aerial photograph.
5. What are the different types of Photo interpretation keys.
6. Define: Flying height, Focal length, Principal point, Nadir point.
7. What are the aspects of controlling the mode of thermal data acquisition?

PTO...

III. Answer any five from the following question: **5×5=25**

1. Describe the different application of GIS and Remote sensing in Disaster management?
2. Describe all the types of plateform with the help of diagram?
3. What is Resolution? Discuss briefly about all the types of resolution?
4. Explain different types of Aerial photograph? Give diagram in support.
5. Calculate the scale of the photograph above 700 mt. from the mean sea level, where the focal length is 200 mm and flying height is 2700 mt.
6. Discuss about the application of photogrammetry.
7. What are the different segments of GPS? Explain them with proper diagram.

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REV-00
MDM /02 /06 2013/02

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(The figures in the margin indicate full marks for the questions)

Duration: 20 minutes **Marks – 20**

(PART A- Objective)

Choose the correct option for the following questions: **1x20=20**

1. Match the following: **1×4= 4**

Earth system satellite	Launched by
a) LANDSAT	I. French Remote sensing satellite
b) SPOT	II. NASA
c) IRS	III. European Remote Sensing Satellite
d) ERS	IV. Indian Remote sensing.

2. Geostationary satellite is located at very high altitude. **True/ False**

3. The science of acquiring processing and interpreting images that record the interaction between Electro magnetic energy and matter is

a) Remote sensing b) GIS c) Digital image d) Remote sensing system

4. Which of the following is not the agencies for carrying out the aerial photography in India

a) National Remote Sensing Agency, Hyderabad b) Air Survey company, Calcutta
c) Indian Air Force d) None of these

5. Vector and Rastar data are used for

a) Remote Sensing Application b) GIS c) GPS d) All the above

6. Aerial photograph is-

a) Two dimensional optical model of the terrain
b) One dimensional optical model of the terrain
c) Three dimensional optical model of the terrain
d) All of these

7. Which of the following is not the type of aerial photograph?

a) Vertical photograph b) Oblique photograph
c) Panchromatic photograph d) None of these

8. The scale of the aerial photographs of a flat terrain depends upon-

i. Height of the air craft

ii. Focal length of the camera

Codes: a) 1 is true b) 2 is true c) Both are true d) Both are false

9. Match the following:

Scale of Map	Size of Map
a) 1:50,000	i. Small
b) 1:25,000	ii.Medium
c) 1:10,000	iii.Large

10. Match the following:

Colours on satellite Imagery	Interpretation
a) Dark Red	i. Sparse forest
b) Light Red	ii. Dense forest
c) Black	iii. Sediments
d) White / Light blue	iv. Water bodies

11. Emissivity is denoted by _____

a) epsilon (ε) b) epsilon (ɜ) c) epsilon (ὲ) d) epsilon (€)

12. Emissivity of most of the natural materials ranges between _____

a) 0.07 – 0.095 b) 0.7 – 0.95 c) 0.7 – 9.5 d) 0.07 – 0.95

13. Emissivity of a black body is

a) 1 b) 0.1 c) 0.01 d) 0.001

14. The space segments consists of _____ satellites

a) 21 b) 29 c) 27 d) 39

15. How many unmanned monitor stations are required in GPs

a) 5 b) 6 c) 7 d) 8

16. Triangulation is required for determining

a) Position and time b) Position c) Time d) Distance from satellite

17. Where ISRO is situated

a) Dehradun b) Hyderabad c) Bangalore d) Chennai

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