

**M.Sc. 3rd Semester Examination, 2022**

**REMOTE SENSING AND GIS**

*( Advanced Remote Sensing and Areas of Applications/  
Application of Geo-informatics )*

**PAPER – RSG-304.1 & 304.2**

*Full Marks : 40*

*Time : 2 hours*

**Answer all questions**

*The figures in the right hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

**PAPER—RSG-304.1**

*( Advanced Remote Sensing and Areas of  
Applications )*

**GROUP – A**

Answer any **two** questions :

2 × 2

1. What is a Digital Image ?
2. What is standard false colour image and how is it produced ?
3. Why ground truthing is an important part of image classification ?
4. Which portion of the EMR is known as thermal region ?

**GROUP – B**

Answer any **two** questions :

4 × 2

5. Compare multi spectral and hyperspectral remote sensing.
6. Briefly discuss about Hard and Soft classification approaches in Image classification.
7. What is a parametric classifier ?

8. What is atmospheric windows in thermal infrared region ?

GROUP – C

Answer any one question : 8 × 1

9. Discuss about the three most frequently used supervised classification techniques with suitable illustration.
10. Explain the principle of LIDAR remote sensing with a graph. Which regions of the EMR are used for topographic and bathymetric LIDAR survey ?

PAPER—RSG-304.2

( *Application of Geo-informatics* )

GROUP – A

Answer any two questions : 2 × 2

11. What are the types of rocks and how they are formed ?

12. Define erosion and weathering of rocks.
13. Briefly explain true colour, false colour and standard false colour composite of images.
14. What is the difference between hazard and disaster ?

**GROUP – B**

Answer any two questions :

4 × 2

15. Explain the types of seismic waves and their properties.
16. Briefly explain different elements of Visual interpretation keys for satellite image interpretation.
17. Briefly discuss the role of Remote Sensing in pre-flood management strategies.
18. What are the different geomorphological processes ?

GROUP – C

Answer any one question :

8 × 1

19. Identify any four major drainage patterns and their association with regional geological structure.
  20. Discuss the application of geoinformatics in disaster management.
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