

2019

B.Sc.

3rd Semester Examination

GEOLOGY (General)

Paper - SEC I-T

Full Marks : 40

Time : 2 Hours

The questions are of equal value for any group/half. The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable. Illustrate the answers wherever necessary.

Group - A1) Answer the following questions (*any five*) : $2 \times 5 = 10$

- a) What do you understand by remote sensing ?
- b) What is active remote sensing ?
- c) What is digital image processing
- d) What is electromagnetic spectrum ?
- e) What is FCC (False Colour Composite) ?
- f) What are the ideal atmospheric condition for remote sensing ?

[Turn Over]

(2)

g) What are the advantages of push broom over whisk broom system of thermal measurement ?

h) What are spatial and attribute data ?

2) Answer any *four* questions

5×4=20

a) List out the important satellites and their sensors.

b) What factors are responsible for microwave back scattered signals upon interaction with ground ?

c) Describe the differences between Rastar and Vector Overlay Operations.

d) i) What is GIS

ii) What are the components of GIS ?

e) Write a short note on Raman scattering and non-selective scattering.

f) Describe the effects of vegetation over a thermal image.

3) Answer any *one* questions :

1×10=10

15) a) Describe the applications of remote sensing in geosciences and geomorphological studies.

b) State the concept of resolution ? Explain the spatial and radiometric resolution in detail.

(3)

Field Geology - I
Basic Field Training

Full Marks : 25

Time : 2 Hours

- | | |
|----------------------|----|
| 1) Field performance | 10 |
| 2) Field Report | 10 |
| 3) Viva voce | 5 |
-