PG 1st Semester Examination, 2024

REMOTE SENSING & GIS

(Computer Basics)

PAPER — RSG-107

Full Marks : 25

Time : 1 hour

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

GROUP—A

Answer any **two** of the following questions :

2 × 2

1. Give two examples each of qualitative and quantitative data.

2. Find the median of the following dataset : 34, 2, 41, -3, 12, 18, 10, 8.

3. What do you understand by ordinal data ?

4. What is the difference between population and sample ?

GROUP—B

Answer any **two** of the following questions :
4 × 2

5. What do you understand by coefficient of variation and Relative Standard Deviation (RSD) ?

6. Explain the properties of normal distribution with an appropriate figure.

7. What is the difference between open source software and freeware ? Give example of each category.

8. A Landsat 8 image was used to analyze the Normalized Difference Vegetation Index (NDVI) of a grassland area. The set of NDVI values extracted from a satellite image are as follows : 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8.

(Continued)

Given that the mean of these values is 0.5 and the standard deviation is 0.2, calculate the skewness of the NDVI distribution. Interpret the skewness.

GROUP – C

Answer any **one** of the following question :

8×1

9. Given the following sample dataset s : $\{51, 55, 47, 52, 54, 49, 50, 48, 53, 51\}$. Compute the range, sample mean, standard deviation and degrees of freedom for s.

10. (a) Why data visualization is important in data analysis ?   3

  (b) Write sort notes on the following visuali- zation techniques : (i) Pie chart, (ii) Histo- gram.   5

[Internal Assessment — 5 Marks]