

2025

M.Sc. 3rd Semester Examination

REMOTE SENSING AND GIS

Paper : RSG - 305

(Geostatistics)

Full Marks : 25

Time : One Hour

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 - A

1. Answer any *two* questions : 2×2=4

- (a) What is meant by statistical surface?
- (b) How does the sample data differ from the population data?
- (c) What do you mean by correlation coefficient and coefficient of determination?
- (d) Mention two applications of interpolation techniques in GIS based project.

P.T.O.

(2)

Group - B

2. Answer any *two* questions : 4×2=8

- (a) Briefly mention the neighbourhood operations with suitable illustrations.
- (b) What will be the standard error of estimate, given $r = -0.69$ and $SD_y = 12.7$. Interpret it with predicted $y = 19$.
- (c) Write a short note on Linear Regression Model.
- (d) What is control points in spatial interpolation and its importance? What do you mean by data poor areas? 2+2

Group - C

3. Answer any *one* question : 8×1=8

- (a) Estimate the Z-score values using given dataset. Interpret the spatial variation of the Z-Score in cropping intensity. 6+2

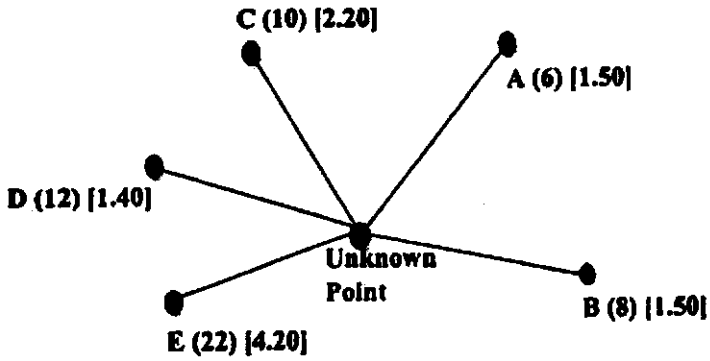
Area	Paschim Medinipur	Purba Medinipur	Howrah	Birbhum	Hooghly	Paschim Bardhaman	Bankura
Cropping Intensity (%)	130	170	156	80	110	30	58

- (b) Calculate the value at unknown point using Inverse Distance Weighted (IDW) method.

Distance from unknown point [*]

Data value (*)

(3)



Internal Assessment : 5 marks
