

2021

GEOGRAPHY — HONOURS — PRACTICAL**Seventh Paper****Module - 13****Full Marks : 50***The figures in the margin indicate full marks.***Unit - I****(Map Projection)**

1. (a) State the difference between perspective and non-perspective projections. Give examples.
 (b) Draw graticules on Cylindrical Equal Area Projection for an area extending between 40°N and 40°S latitudes and 20°W to 60°E longitude at an interval of 20°. The R.F is 1: 80,000,000.
 (c) State two properties of Cylindrical Equal Area Projection. 4+14+2

Unit - II**(Cartograms : Representation of Population Data)**

2. (a) Draw Proportional Squares to show the number of rural households from the given data

Sl. No.	C.D. Block	Rural household
1	Karimpur I	32,381
2	Karimpur II	40,214
3	Chapra	28,548
4	Kaliganj	19,248

- (b) Draw Prportional spheres to represent the population in the urban centres of Nadia

Sl. No.	Urban Centres	Urban Population
1	Krishnanagar	24,123,314
2	Santipur	17,390,445
3	Nabadwip	21,872,347

6+10

Please Turn Over

Unit - III

(Thematic Mapping with Climate and Soil Data)

3. Plot the data given below to show the variation in the vertical distribution of sand, silt, clay and pH in the soil profile. Interpret the diagram. 12+2

Depth in inches	pH	Sand (%)	Silt (%)	Clay (%)
0 - 4	7.5	28.78	24.90	46.32
4 - 16	7.7	15.12	19.71	65.17
16 - 36	8.1	17.21	38.31	44.48
36 - 48	7.9	23.51	46.88	29.61
48 - 60	7.2	32.10	21.53	46.37

Instructions to Candidates**Unit - I**

- | | |
|--|---|
| 1. (b) Calculation | 6 |
| Drawing | 8 |
| [Parallels 3, meridians 3, labelling and scale 1, Heading 1] | |
| (a) and (c) as in question | |

Unit - II

- | | |
|-----------------------------|---|
| 2. (a) Proportional Squares | |
| Calculation | 2 |
| Drawing and choice of scale | 3 |
| Heading and labelling | 1 |
| (b) Proportional Spheres | |
| Calculation | 4 |
| Drawing and choice of scale | 5 |
| Heading and labelling | 1 |

Unit - III

- | | |
|------------------------------|----|
| 3. Soil profile | |
| Plotting on a suitable scale | 10 |
| Heading, labelling, index | 2 |
| Interpretation | 2 |

2021

GEOGRAPHY — HONOURS — PRACTICAL

Seventh Paper

(Group - B)

Module - 14

[GIS and Remote Sensing (Practical)]

Full Marks : 50

The figures in the margin indicate full marks.

Unit - I

(GIS)

1. (a) What is Geo-referencing?
- (b) Write down the steps of digitizing boundary of a map according to Q GIS software.
- (c) What is UTM?
- (d) Differentiate between Raster and Vector data. 2+6+2+2

Unit - II

(Remote Sensing)

2. (a) Describe the methodology to demarcate the overlapped area from a pair of consecutive aerial photographs.
- (b) What is the significance of principal point of an aerial photograph?
- (c) What do you understand by a stereopair? 8+2+3

Or,

- (a) Describe the methodology for visual interpretation of satellite imagery.
- (b) What are the full forms of IRS and FCC?
- (c) What is a sun synchronous orbit? 8+2+3

Unit - III

3. Field report and viva voce. 15+10
-