UNIT-V

9. The state-wise data on income, health, and education in North East India is given below. Construct the composite index for each state for all three indicators using the ranking method. 11

State	GSDP (in USD billion)	Life Expectancy	Literacy
Arunachal Pradesh	4.7	67.5	65.38
Assam	55.4	66.1	72.19
Manipur	4.9	67.6	76.94
Meghalaya	5.2	68.8	74.43
Mizoram	3.7	72.1	91.33
Nagaland	4.3	75.4	79.55
Sikkim	5.0	65.9	81.42
Tripura	8.4	66.0	87.22

10. Compute the principal component from the following data: 11

X	2	3	4
Y	4	3	2

11. Note book. 5

12. Viva-voce 10

★★★

2024/SEM/EVEN/14/36/GEO/GEOALIF-555/235

PG Even Semester Exam, 2024

Geography

2nd Semester

COURSE NO. GEOALIF- 555

[Quantitative Methods in Geography]

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer five questions, taking one from each Unit

UNIT-I

1. Calculate the mean, median and mode from the following data: 4+4+3=11

Classes	Frequencies
20-40	3
40-80	6
80-100	70
100-120	12
120-140	9

2. Compute the mean deviation and the standard deviation from the data given in Q. No. 1. 6+5=11

Turn over

UNIT-II

3. What is sampling? How is sample survey different from census survey? What are non-probability sampling and probability sampling? Briefly describe with examples. 3+3+5=11

4. A simple random sampling survey in respect of monthly earnings of semi-skilled workers in the cities gives the following information: 11

City	Mean monthly earnings(Rs)	Standard deviation of sample data (Rs.)	Size of sample
A	695	40	200
B	710	60	175

Test the hypothesis at 5 percent level that there is no difference between monthly earnings of workers in the two cities and interpret the result.

UNIT-III

5.

X	1	3	4	4	6	8	10	10	11	13	14	14
Y	80	97	92	102	103	111	119	123	117	136	142	145

a. Compute the correlation coefficient using Karl Pearson's method. 4

b. Perform the student 't' test, where the tabulated 't' value for 10 degrees of freedom is 3.17 at 1%, 2.76 at 2% and 2.23 at 5% level of significance. 4

c. Interpret the relationship between X and Y. 3

6. a. Calculate the correlation coefficient using Spearman's rank method from the data given in Q. No. 5. 4

b. Perform the student 't' test, where the tabulated 't' value for 10 degrees of freedom is 3.17 at 1% , 2.76 at 2% and 2.23 at 5% level of significance. 4

c. Interpret the relationship between X and Y. 3

UNIT-IV

7. The district wise total population of SC and ST population in Tripura (2011 census) is given below. Find out the relative concentration of SC and ST population using location Quotients and interpret the result. 11

District	Total population	SC population	ST population
West Tripura	1,725,739	3,38,094	4,31,944
South Tripura	8,76,001	1,40,168	3,44,835
Dhalai	3,78,230	61,688	2,10,608
North Tripura	6,93,947	1,14,968	1,79,426

8. Calculate the Gini's coefficient from the data given in Q. 7. 11

Turn over