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M.Sc. RNLK-/GEO-305/21

2021

Geography

[Third Semester]

Paper - GEO 305

Full Marks : 50

Time : 2 hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Unit-33

Advanced Quantitative Techniques

F.M. - 25

- 1. Calculate SD of the six variables from following table.
Identify the most consistent variable.**

(Turn Over)

(2)

Table 1. Gross National Income and Net National Income

Year	Gross national income (₹ crore)		Net national income (₹crore)		Per capita net national income (₹)	
	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2011-12	865905	8959505	7742330	7742330	63462	63462
2012-13	9827250	9104662	8766345	8094001	70983	65538
2013-14	110093638	9679027	9897663	8578417	79118	68572
2014-15	12320529	10402987	10978238	9224343	86647	72805
2015-16	13612095	11234571	12162398	9963681	94797	77659
2016-17	15215269	12163619	13623937	10782092	104880	83003
2017-18 (2 nd RE)	16913491	13029307	15149545	11540556	115293	87828
2018-19 (1 st RE)	18768912	13829068	16789288	12219693	126521	92085
2019-20 (PE)	20118353	14405339	17999754	12733366	134226	94954
2020-21 (1st AE)	19239432	13269436	17209409	11718380	126968	86456

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(Continued)

(3)

2. Draw the correlation between Age and In urea for 20 patients attending an emergency unit using SPSS Software. Calculate co-efficient of determination. 6+2

Patient Number	Age (Years)	In urea
1	60	1.099
2.	76	1.723
3	81	2.054
4	89	2.262
5	44	1.686
6	58	1.988
7	55	1.131
8	74	1.947
9	45	1.548
10	67	1.386
11	72	2.617
12	91	2.701
13	76	2.054
14	39	1.526

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(Turn Over)

(4)

15	71	2.002
16	56	1.526
18	77	1.825
19	64	2.460
20	84	1.932

3. Why do we require dimensionally reduction in PCA? What are its limitations? 4
4. Laboratory Note Book and Viva Voce. 5

(5)

Unit - 34

Physical Thematic Mapping

[F.M. - 25]

1. Calculate rainfall deviation using suitable technique based on given data of the stations mentioned below and prepare a map showing rainfall deviation zones. Interpret the map. 12+2=14

	Rainfall (mm)		
Name of States	2018	2019	2020
Orissa	1290	1594	1460
Bihar	770	1194	1205
W.M.P.	758	813	562
Gangetic W.B.	959	1520	1527

2. Find out pH values of given soil samples and write their characteristics. 4+2=6
3. Laboratory Note Book and Viva Voce. 5

(6)



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