Name... Reg. No...

M. A. DEGREE END SEMESTER EXAMINATION APRIL 2017
SEMESTER – 2: SOCIOLOGY
COURSE: 15P2SOCT10 –: STATISTICS FOR SOCIOLOGY
(*Common for Regular 2016 admission and Supplementary 2015 admission*)

Time: Three Hours   Max. Marks: 75

PART A
(Answer **any eight** questions of 2 marks)

1. What are the bases of classification?
2. Give any two limitations of Statistics.
3. Calculate A.M for the following data : 20, 40, 54, 66, 80, 34, 72, 25, 42, 56
4. Define Mean deviation.
5. Define Correlation.
6. Find the probability of getting 2 heads when a coin is tossed twice.
7. Define null hypothesis.
8. Calculate Range and Coefficient of range for the following data
    13,18,12,17,16,5,19
9. If Mode = 32.1 and Mean = 35.4, find Median.
10. What is type 1 error?
11. What is a Pie diagram?
12. Find Median for the following data: 30,29,25, 36, 23, 21, 18

(8 x 2 = 16)

PART B
(Answer **any seven** questions of 5 marks each.)

13. Calculate Quartile deviation for the following data

C.I	0-10	10-20	20-30	30-40	40-50
F	22	58	45	35	20

14.   What are the properties of a good measure of Central tendency?
15.   Calculate Mode for the following data.

Marks	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of Students	8	19	29	36	25	13	4

16.   Calculate Mean deviation from Mean of 10,15,18,20,20,22,23,25, 27,30
17.   The lengths and weights of a sample of 5 articles manufactured by a factory are given below. Find the Regression line of Y on X.

X	7	4	8	6	5
Y	6	5	9	8	2

18.   Random samples drawn from two countries gave the following data relating to the heights of adult males. Is the difference between the means significant?

19. Apply χ^2 test to examine whether the following figures provide evidence of the effectiveness of the inoculation

	Country A	Country B
Mean Height in inches	67.42	67.25
Standard deviation	2.58	2.5
Sample size	1000	1200

	Attacked	Not Attacked
Innoculated	3	12
Not Innoculated	8	5

20. Calculate Rank Correlation coefficient for the following data

Height of Father	65	63	67	64	68	62	70
Height of Son	68	66	65	69	71	67	63

21. Explain the applications of Statistics in Sociological research.

22. The heights of students in a College is believed to be distributed with Standard deviation 1.5. A Samples of 400 students have their mean height 4.75ft. Does this contradict the hypothesis that the mean height of students is 4.48ft.? (5 x 7 = 35)

PART C
(Answer **any two** questions of 12 marks each)

23. Calculate Karl Pearson's coefficient of Correlation for the following data.

X	39	65	62	90	82	75	25	98	36	78
Y	47	53	58	86	62	68	60	91	51	84

24. Two random samples were drawn from two normal populations and their values are as follows.

Sample 1	20	16	26	27	23	22	
Sample 11	27	33	42	35	32	34	38

Test whether the two population have same variances at 5% level of significance.

25. Calculate co efficient of Variation for the following data

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	5	10	20	40	30	20	10	4

26. Calculate Coefficient of Mean deviation for the following data.

Size	4	6	8	10	12	14	16
Frequency	1	4	5	3	2	1	4

(12 x 2 = 24)

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