B.Com(Hons) DEGREE EXAMINATION,NOVEMBER 2019
I Year I Semester
Business Statistics

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer **ALL** the questions

1. State any two limitations of statistics.
2. Find geometric mean of 2, 4 and 8.
3. Find the mode of 2, 12, 18, 25, 29, and 15.
4. Define simple random sampling.
5. Define Null hypothesis.
6. Define F statistic.
7. Find the probability of getting two head in tossing three coins.
8. Find the range and its coefficient for the following data: 35,40,52,29,51,46,27,30,30,23.
9. State the components of time series.
10. Define method of least square.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

11. State the functions of statistics.
12. Find the median value from the following data

Age in years :	55-60	50-55	45-50	40-45	35-40	30-35	25-30	20-25
No. Of persons:	8	12	30	40	20	8	7	2

13. Time taken by workers in performing a job are given below:

Method I	20	16	26	27	23	22	
Method II	27	33	42	35	32	34	38

Test whether there is any significant difference between the variances of time distribution.

14. Random samples drawn from two countries gave the following data relating to the height of adult males. Is the difference between the standard deviations are significant.

	Country A	Country B
Mean height in inches	67.42	67.25
Standard deviation	2.58	2.50
Number of samples	1000	1200

15. There are 4 boys and two girls in room No.1 and 5 boys and 3 girls in room No.2. A girl from one of the rooms laughed loudly. What is the probability that the girl who laughed loudly was from room no.2
16. State the properties of standard deviation
17. The co-efficient of rank correlation of the marks obtained by 10 students in two particular subjects was found to be 0.5. It was then detected that the difference in ranks in the two subjects obtained by one of the students was wrongly taken as 3 in the place of 7. What should be correct rank correlation co-efficient?
18. Calculate 5 yearly moving averages from the following data:

Year:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Sales:	332	317	357	392	402	405	410	427	405	438

Section C $(2 \times 15 = 30)$ Marks

PART - A - Case Study - Compulsory Question

19. The results of a survey to know the educational attainment among 100 persons randomly selected in a locality are given below. Can you say that education depends on gender.

Gender Education	Middle	High school	College
Male	10	15	25
Female	25	10	15

PART - B

Answer any **ONE** questions

20. The mean of the following data is 50. But the frequencies of two class intervals are missing. Find the missing frequencies

Class interval:	0-20	20-40	40-60	60-80	80-100	Total
Frequency	17	?	32	?	19	120

21. Find the karl pearson coefficient of correlation between expenditure on advertising and sales from the following data Advertisement

expenses('000 Rs.)	39	65	62	90	82	75	25	98	36	78
Sales(lakshs)	47	53	58	86	62	68	60	91	51	84

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