



QP CODE: 19102079 Reg No : ......

Name :

# B.Com. DEGREE (CBCS) EXAMINATION, OCTOBER 2019

### **Third Semester**

## CORE COURSE - CO3CRT08 - QUANTITATIVE TECHNIQUES FOR BUSINESS- 1

(Common to all B.Com Degree Programmes)

2017 Admission Onwards

D31C3060

Maximum Marks: 80 Time: 3 Hours

### Part A

Answer any ten questions.

Each question carries 2 marks.

- 1. All facts numerically expressed are statistics. Indicate with reason whether the statement is correct.
- 2. Write short note on univariate data.
- 3. Write a note on stratified sampling.
- 4. Show how foot note appears in a statistical table.
- 5. Define mode.
- 6. Find median from the following;

Size	5	8	10	15
Frequency	15	8	14	13

- 7. Find the Geometric mean of 3, 8 and 9
- 8. Find the range and co-efficient of range of 2, 24, 21, 45, 37, 40 and 38.
- 9. Compute Standard Deviation; 15,18,22,26,30
- 10. What is kurtosis?
- 11. Define Interpolation
- 12. What is Extrapolation?

 $(10 \times 2 = 20)$ 



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#### Part B

Answer any six questions.

Each question carries 5 marks.

- 13. Statistics is a rainbow of lies- An ounce of truth can produce tons of Statistics"- Comment on these statements?
- 14. Explain various errors in statistics.
- 15. Form a frequency distribution from the following data by exclusive method taking 5 as the magnitude of class intervals:

10,17,15,22,11,16,19,24,29,18,25,26,32,14,17,20,23,27,30,12, 15,18,24,36,18,15,21,28,33,38,34,13,10,16,20,22,29,19,23,31

16. From the following data compute arithmetic mean by direct method:

Marks 0-10 10-20 20-30 30-40 40-50 50-60

No of Students 5 10 25 30 20 10

17. Compute median from the following data.

Mid-Value	115	125	135	145	155	165	175	185	195
F	6	25	48	72	116	60	38	22	3

18. Determine mode from the following data

Weekly salary (Rs.)	15	16	17	18	19	20
No of workers	6	12	23	30	90	1

19. Determine quartile deviation and co-efficient of quartile deviation for the following distribution

Weight(kg)	30-34	35-39	40-44	45-49	50-54
No of Boys	5	11	26	10	8

- 20. Explain relative measures of dispersion along with its formula.
- 21. Interpolate the missing figures.

Year	1931	1941	1951	1961	1971
Production	360	?	425	450	465

 $(6 \times 5 = 30)$ 

Part C

Answer any two questions.

Each question carries 15 marks.





22. Determine quartiles from the following distribution

Marks	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
No. of Students	5	6	15	10	5	4	2	2

23. The following data gives the weekly wages of workers in a firm, their total working hours and the average working hours per worker.

Calculate the average weekly wage per worker.

Wages group(Rs) 80- 100 100- 120 120-140 140- 160 160-180 180-200 Total Hours Worked 168 170 225 272 126 91 Average No. of Hours worked per worker 9 7 12 10 8.5 6.5

Calculate Karl Pearson's Co efficient of skewness and explain its significance.

Wages	0-	10-	20-	30-	40-	50-	60-	70-
	10	20	30	40	50	60	70	80
No of	12	18	35	42	50	45	20	8
persons								

25. An analysis of monthly wages paid to workers in two firms A and B belonging to the same industry gives the following data:

	Firm A	Firm <b>B</b>
No of workers	550	650
Average Monthly wages	50	45
Standard Deviation	√90	√120

- 1. Which Firm A or B pays larger amount as monthly wages?
- 2. What are the monthly wages and S.D in the distribution of individuals' wages of workers in the two firms taken together?
- 3. In which firm there is greater variability in individual wages?

 $(2 \times 15 = 30)$ 

