QP CODE: 22009141

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Reg No : .....

Name : .....

B.COM DEGREE (CBCS) PRIVATE (REAPPEARANCE) EXAMINATIONS, NOVEMBER 2022

Third Semester

B.COM

CORE COURSE - CO3CRT08 - QUANTITATIVE TECHNIQUES FOR BUSINESS- 1

2017-2019 ADMISSIONS

35AD9E07

Time: 3 Hours Max. Marks : 80

Instructions:This question paper contains two sections.Answer Section I questions in the answer book provided. Section II Internal Examination questions must be answered in the question paper itself.Follow the detailed instructions given under Section II.

SECTION I

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Write a short note on distrust of statistics.
2. State the Law of Statistical Regularity.
3. Write a note on stubs.
4. Write a note on combined mean.
5. Mean of 100 items was 50. Later on it was found that 2 items were misread as 92 and 8 instead of 192 and 88. Find the correct mean.
6. Calculate Mode
   15,10,12,10,11,12,10,13,11,10,21,13,11
7. A student pedals from his house to the college at 8 km. per hour and back from the College to his house at 12 km. per hour. Find the average speed by applying the most appropriate method.
8. Find the range and co-efficient of range of 2, 24, 21, 45, 37, 40 and 38.
9. If n= 10, Σx= 60, Σx^2 =1,000. Calculate standard deviation.

10. In a moderately skewed distribution arithmetic mean is 24.6 and the mode is 26.1. Find the value of median.

11. Define Interpolation.

12. Write a short note on Extrapolation.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. List out the applications of statistics.

14. Distinguish between interview schedule and questionnaire.

15. Distinguish between Census survey and Sample Survey.

16. The mean salary paid to 1000 employees of an establishment was found to be Rs.180.40. Later on it was discovered that salaries of two employees were wrongly entered as Rs.297 and Rs. 165. Their correct salaries were Rs.197 and Rs. 185.Find the correct arithmetic mean.

17. An economy grows at the rate of 2 % in the first year,2.5% in the second year, 3 % in the third year, 4 % in the fourth year, 5 % in the fifth year, 6 % in the sixth year, 7 % in the seventh year, 8% in the eight year, 9% in the ninth year and 10% in the tenth year. What is the average rate of growth?

18. Describe the requisites of a good Measure of Central Tendency.

19. Calculate Quartile Deviation and its coefficient from the following data.

Weight (in Kgs.):	60	61	62	63	65	70	75	80
No. of Workers:	1	3	5	7	10	3	1	1

20. List the merits and demerits of quartile deviation.

21. Using the suitable method, interpolate the business for April 2007.

Month	January	February	March	May	June
Business(000 - Rs)	150	235	365	525	780

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Two automatic filling machines A and B are used to fill tea in 500gms cartons. A random sample of 100 cartons on each machine showed the following

Tea contents (in grams)	Machine A	Machine B
485-490	12	10
490-495	18	15
495-500	20	24
500-505	22	20
505-510	24	18
510-515	4	13

Comment on the performance of two machines.

23. A and B are two factories engaged in the same industry in an area, the average weekly wages in rupees and the standard deviations are as follows.

Factory	Average Weekly wages	Standard deviation	No. of Wage Earners
A	34.5	5	476
B	28.5	4.5	524

1. Which factory A or B pays out larger amount as weekly wages?
2. What is the average wages of all workers in two factories taken together?
3. What is the co-efficient of variation in case of each factory separately? What inference do you draw from a comparison of co-efficient of variations?

24. Calculate standard deviation of the distribution of wages mentioned below:

Monthly wages	130-150	150-170	170-190	190-210	210-230
No of Persons	8	26	59	43	14

25. Estimate the production for the years 1955 and 1965 with the help of the following table:

Year	1940	1945	1950	1955	1960	1965	1970
Production ('000tonnes)	200	220	260	?	350	?	430

(2×15=30)