23127128

QP CODE: 23127128

Reg No : .....

Name : .....

B.COM DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2023

Third Semester

Core Course - CO3CRT08 - QUANTITATIVE TECHNIQUES FOR BUSINESS- 1

(Common to all B.Com Degree Programmes)

2017 Admission Onwards

886DD6D3

Time: 3 Hours Max. Marks : 80

Instructions to Private candidates only**: 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

Part A

*Answer any **ten** questions.*

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

1. Write a note on inferential statistics.
2. Write a note on quota sampling.
3. Write a short note on cross tabulation.
4. Define mode.
5. If the average rainfall for a week is 5 cm. If the average rainfall for first 6 days of the week is 4 cm, what is the rainfall on Saturday?
6. Compute median from the following;

Class	0-10	10-20	20-30
Frequency	10	25	15

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. A particular type of wallet carries the following price -tags ;

   Rs: 210, 220, 225, 235, 240, 250, 270, 250

   Find the mean deviation price.

9. Compute Standard Deviation; 16,15,14,18

10. Calculate Skewness, if μ_2 is 6 and μ_3 is 19

11. Give the formula for Newton's method of advancing differences.

12. Define Extrapolation.

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. Explain the importance of statistics.

14. Draft a questionnaire for collecting socio-demographic details of women workers in a factory.

15. Explain the theoretical base of sampling .

16. The mean age of a group of 100 children was 9.35 years. The mean age of 25 of them was 8.75 years and that of another 65 was 10.51 years. What was the mean age for the remainder?

17. The following table gives the length of life of 150 electric lamps. Calculate mode.

Life	0-400	400-800	800-1200	1200-1600	1600-2000	2000-2400	2400-2800	2800-3200
Frequency	04	12	40	41	27	13	09	04

18. Mention the mathematical properties of arithmetic mean.

19. Marks obtained a public service examination by 25 students are as follows :

Marks	5-9	10-14	15-19	20-24	25-29	30-34	35-39
No. of students	1	3	8	5	4	2	2

Find coefficient of range.

20. Compute the coefficient of quartile deviation from the following data:

Central size of item	1	2	3	4	5	6	7	8	9	10
Frequency	2	9	11	14	20	24	20	16	5	2

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. In the frequency distribution of 100 families given below the number of families corresponding to expenditure groups 20-40 and 60-80 are missing from the table. However the median is known to be 50. Find the missing frequencies.

Expenditure	0-20	20-40	40-60	60-80	80-100
No of Families	14	?	27	?	15

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. Explain the various measures of dispersion along with the merits and demerits of each measure.

25. The following are the amounts of income tax paid by 600 business men in year 2010:

Income tax Rs (more than)	500	1000	1500	2000	2500	3000
No. of business men	600	550	425	275	100	25

Find out the number of businessmen who paid more than Rs. 1,200 but not more than Rs.2,400 as income tax?

(2×15=30)