

E 6179

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Reg. No.....

Name.....

B.B.A. DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2018

First Semester

Complementary Course—FUNDAMENTALS OF BUSINESS STATISTICS

(2013—2016 Admissions)

Time : Three Hours

Maximum Marks : 80

Part A

*Answer all questions.
Each question carries 1 mark.*

- | | |
|-----------------|------------------|
| 1. Scaling. | 2. Ogive. |
| 3. Mode. | 4. Population |
| 5. Correlation. | 6. Lorenz curve. |
| 7. Tabulation. | 8. Pie diagram. |
| 9. Regression. | 10. Statistics. |

(10 × 1 = 10)

Part B

*Answer any eight questions.
Each question carries 2 marks.*

11. The average marks of a student in 5 subjects is 72. His marks in four subjects are 37, 82, 55 and 77. Find out the marks for 5th subject.
12. What are the desirable properties of a good measure of dispersion ?
13. Explain the different methods to find the correlation coefficient.

14. Draw a Histogram :

Classes	:	0—10	10—20	20—30	30—40	40—50	50—60	60—70	70—80
Frequency	:	8	6	3	7	9	10	5	1

15. State merits of arithmetic mean.
16. If $\bar{X} = 38.2$, Median = 41.6. Find mode.
17. What is classification of data ?
18. Mention the difference between regression and correlation.
19. Calculate Karl Pearsons correlation coefficient between X and Y from the following data :—

Age (X)	:	20	24	17
Score (Y)	:	30	20	27

20. What are the limitations of Statistics ?

Turn over

21. Find coefficient of variation of the values 4, 7, 2, 0, 9, 11, 2.
 22. Distinguish between Population and Sample.

(8 × 2 = 16)

Part C

*Answer any six questions.
 Each question carries 4 marks.*

23. From the following data find quartile deviation and its coefficient :

X :	10—15	15—20	20—25	25—30	30—35	35—40	40—45	45—50
F :	8	10	12	15	10	7	8	5

24. Find mean, median and mode :

Class :	0—9	10—19	20—29	30—39
Frequency :	5	10	15	5

25. What is dispersion, explain its measures.
 26. Draw Ogive curves from the following data and measure the median value verify it by actual calculation :

Class interval :	0—10	10—20	20—30	30—40	40—50
Frequency :	5	11	21	16	10

27. What is the Spearman rank correlation coefficient for the following set of data :—

X :	19	21	25	22	33
Y :	30	24	28	31	35

28. Give short notes on following :

- (i) Population. (ii) Sampling.
 (iii) Census. (iv) Universe, Questionnaire.

29. Describe the different methods adopted for the measurement of secular trend.
 30. Explain the components of time series.
 31. Explain Central Limit Theorem.

(6 × 4 = 24)

Part D

*Answer any two questions.
 Each question carries 15 marks.*

32. An agent obtained samples of bulbs from two companies. He had tested them for durability and got the following results :

Life (in kms)	Type A	Type B
17—19 ...	100	30
19—21 ...	160	420
21—23 ...	260	120
23—25 ...	80	30

Which company's bulbs are more uniform life ?

33. Explain methods for collecting secondary data. State their merits and demerits.
34. Why graphical presentation of data is considered more efficient over other methods, also explain various methods of graphical presentation.
35. Calculate Karl Pearson's coefficient of correlation between temperature and germination time :

Temperature : 57 42 40 38 42 45 42 44 40

Germination time : 10 26 30 41 29 27 27 19 18

Take 47 and 26 as assumed mean.

(2 × 15 = 30)