

E 7638

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Reg. No.....

Name.....

B.B.A. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2019

First Semester

Complementary Course—FUNDAMENTALS OF BUSINESS STATISTICS

(Prior to 2013 Admissions)

Time : Three Hours

Maximum Weight : 25

Part A

Answer all questions.

Each bunch of four questions carries a weight of 1.

Bunch I

1. Statista or status means ———.
2. Presentation of data with the help of pictures is known as ———.
3. The positional measure of central tendency is ———.
4. In chronological classification data are classified on the basis of ———.

Bunch II

5. The heading of the row in a statistical table is known as ———.
6. While drawing a scatter diagram if all points appear to form a straight line going downward from left to right shows ———.
7. The most important factors causing seasonal variations are ———.
8. Quartiles are values dividing a given set of data into ——— equal parts.

Bunch III

9. The variable which is trying to predict in regression analysis is ———.
10. The additive model of a time series is expressed as ———.
11. Interquartile range is the difference between the two extreme ———.
12. ——— is equal to the square of standard deviation.

Bunch IV

13. ——— is defined as a reciprocal of Arithmetic Mean of the reciprocal of the observations.
14. ——— is an absolute measure of dispersion.
15. Bar diagrams are ——— dimensional diagrams.
16. Collecting data about each and every unit of the population is called as ———.

(4 × 1 = 4)

Turn over

Part B (Short Answer Type)

*Answer any five questions.
Each question carries a weight of 1.*

17. Define Statistics.
18. Explain Primary data.
19. What is mode ?
20. What is Regression Analysis ?
21. What is Pie chart ?
22. What is irregular variation ?
23. Explain geometric mean.
24. A cyclist pedals from his house to college at a speed of 8 km. per hour and back from the college to his house at 12 km. per hour. Find the average speed.

(5 × 1 = 5)

Part C (Short Essay Type)

*Answer any four questions.
Each question carries a weight of 2.*

25. What are the desirable properties of a good measure of dispersion ?
26. Compute the trend values by finding three-yearly moving averages for the following time series :—

Year	:	2005	2006	2007	2008	2009	2010	2011
Population (in millions)	:	412	438	446	454	470	483	490

27. From the data given below calculate Karl Pearson's correlation coefficient :

Demand (tons)	:	40	41	48	60	50
Price (Rs.)	:	10	12	15	14	19

28. Explain the utility and limitations of the diagrammatic representation of statistical data.
29. Calculate mean deviation from median from the following frequency distribution :

Class interval	:	2—4	4—6	6—8	8—10
Frequency	:	3	4	2	1

30. Prepare a Histogram and a frequency polygon from the following data :—

Class	:	0—6	6—12	12—18	18—24	24—30	30-36
Frequency	:	4	8	15	20	12	6

(4 × 2 = 8)

Part D (Essay/Problem Solving Type)*Answer any two questions.**Each question carries a weight of 4.*

31. Calculate mean, median and mode from the following distribution :—

Class	: 5—9	10—14	15—19	20—24	25—29	30—34	35—39
Frequency	: 8	12	23	12	7	5	3

32. In trying to evaluate the effectiveness of an advertising campaign, a firm compiled the following information :

Year	:	2007	2008	2009	2010	2011	2012	2013	2014
Advertisement spend ('000) Rs.:		12	15	15	23	24	38	42	48
Sales (lakhs (Rs.))	:	5.0	5.6	5.8	7.0	7.2	8.8	9.2	9.5

Calculate regression equation of sales on advertising expenditure. Estimate the probable sales when advertisement spend is Rs. 60,000.

33. From the following table of marks obtained by two students Hari and Ravi in tests of 100 marks each, find out who is more intelligent and who is more consistent ?

Hari	:	25	50	45	30	70	42	36	48	34	60
Ravi	:	10	70	50	20	95	55	42	60	48	80

(2 × 4 = 8)