

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai — 600 044.

BBA END SEMESTER EXAMINATION APRIL/NOV - 2021

SEMESTER - III

20UBACT3007 - Business Statistics - I

<b>Total Duration : 3 Hrs</b>	<b>Total Marks : 75</b>
MCQ : 30 Mins	MCQ : 15
Descriptive : 2 Hrs.30 Mins	Descriptive : 60

Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Discuss the meaning and characteristics of statistics.
2. Distinguish between primary data and secondary data.
3. Present the following data of the percentage marks of 60 students in the form of frequency table with ten classes of equal width, one class being 0-9.  
41 17 33 63 54 92 60 58 70 06 67 82 33 44 57 49 34 73 54 63 36 52 32 75  
60 33 09 79 28 30 42 93 43 80 03 32 57 67 24 64 63 11 35 82 10 23 00 41  
60 32 72 53 92 88 62 55 60 33 40 57.

4. Calculate Geometric mean of the following:

50 72 52 82 93

5. The monthly incomes of 10 families in rupees in a certain village are given below:

Family	1	2	3	4	5	6	7	8	9	10
Income	85	70	10	75	500	8	42	250	40	36

Calculate the Harmonic Mean.

6. Calculate the semi inter quartile range and quartile coefficient from the following:

Age in years	20	30	40	50	60	70	80
No. Of members	3	61	132	153	140	51	3

7. Calculate the standard deviation from the following data:

14, 22, 9, 15, 20, 17, 12, 11.

8. From the following data calculate

i) Correlation coefficient

ii) Standard Deviation of Y

$$b_{xy} = 0.85Y$$

$$b_{yx} = 0.89X$$

$$\sigma X = 3$$

Condt...

## Section C

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Present the following information in a suitable tabular form, supplying the figures not directly given.

In 2006, out of 2,000 workers in a factory, 1,550 were members of a trade union. The number of women workers employed was 250, out of which 200 did not belong to any trade union.

In 2007, the number of union workers was 1,725 of which 1,600 were men. The number of non-union workers was 380, among whom 155 were women.

10. Calculate the mode from the following.

Size	10	11	12	13	14	15	16	17	18
Freq.	10	12	15	19	20	8	4	3	2

11. A sample of 35 values has mean 80 and standard deviation 4. A second sample of 65 values has mean 70 and standard deviation 5. Find the standard deviation of the combine sample of 100 values.

12. Find Karl Pearson's coefficient of correlation from the following data:

Wages	100	101	102	102	100	99	97	98	96	95
Cost of living	98	99	99	97	95	92	95	94	90	91

13. A random sample of 5 college students is selected and their grades in Mathematics and Statistics are found to be:

Subjects	1	2	3	4	5
Mathematics	85	60	73	40	90
Statistics	93	75	65	50	80

Calculate Pearman's rank Correlation coefficient.

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