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Question bank for b.com ii sem
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MEAN, MEDIAN, MODE, STANDARD DEVIATION, SKEWNESS, C.V.

Prob.1 :- If the mode 32.1 and median 34.3 of moderately asymmetrical series problem mean.

Prob.2 :- If the value of mode and median of series are 64.2 and 68.6 respectively. Find out the value of mean.

Prob.3 :- Deterine the Arithmetic Mean in the following series.

Income Limits	No. of Persons
100-200	15
200-300	18
300-400	30
400-500	20
500-600	17

Prob.4 :- Calculate the average marks per students.

Income Limits	No. of Persons
10-20	7
20-30	13
30-40	20
40-50	25
50-60	10
60-70	8
70-80	6
80-90	1

Prob.5 :- Calculate the average marks per students.

Group	Monthly Income	Weight
Manager	1,000	1
Office Staff	200	8
Skilled Workers	250	20
Unskilled workers	140	11

Prob.6 :- Calculate weight arithmetic average.

Price **:**	3	4	5	6	7	8	0
Sales **:**	16	14	13	17	10	6	4

Prob.7 :- Calculate correct mean when it is kwon that for a group of 10 students scoring an average of 60 marks, the best paper was wrongly marked 80 instead of 75?

Prob.7(a) :- Calculate correct mean when it is kwon that for a group of 10 students scoring an average of 60 marks, but two items wrong marked 80 & 70 instead of 52 & 70.

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Prob.8 :- If mean = 270 and mode = 310 in a moderately skewed distribution, there what will be the median value?

Prob.9 :- If the mode and mean of a moderately asymmetrical series are respective 26 and 20.2 meters. Compute most probable.

Prob.10 :- Find out the median income from the following;-

Income in Rs**.** 120 200 170 800 620 350 825 375 640 750

Prob.11 :- Find out the median size from the following.

Size :	10-20	20-30	30-40	40-50
Frequency :	42	25	58	40
Cumulative : Frequency	42	67	125	165

Prob.12 :- Calculate the median.

Profit in Rs. :	5-10	10-15	15-20	20-25	35-30
No. of Shop :	7	12	15	10	3

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Prob.13 :- Given mean = 25, median = 27.3 find out the approximate value of mode.

Prob.14 :- If the mean median of series are 26.8 and 27.9 respectively. What would be it most probable mode?

Prob.15 :- Calculate mode. If the value of mean = 139.51 and median = 139.84

Prob.16 :- Karl Person's co-efficient of skewness of a distribution is (+) .32 its standard deviation is 6.5 and mean is 29.4 find out mode.

Prob.17 :- Find out mode. If $F_1 = 21$; $F_2 = 15$; $F_0 = 21$; model group is 50-60.

Prob.18 :- Calculate the mode.

Model group is 1200-1600; Frequency of the group 41;
Frequency of previous group 40; Frequency of next group 27.

Prob.19 :- Find out mode of the following series.

Size :	8	9	10	11	12	13	14	15
Frequency :	5	6	8	7	9	8	9	6

Prob.20 :- From the data given below find the model group.

Age	No. of Persons
20-25	50
25-30	70
30-35	80
35-40	180
40-45	150
45-50	120
50-55	70
55-60	50

Prob.21 :- Find model group from the following.

Income in Rs.	No. of Workers
Below 400	4
Below 800	16
Below 1200	56
Below 1600	97
Below 2000	124
Below 2400	137
Below 2800	146
Below 3200	150

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Prob.22 :- Calculate standard deviation from the following data.

Income in Rs.	2542	2522	2534	2532	2545
	2566	2550	2530.		

Prob.23 :- Find out standard deviation.

120   110   115   122   126   140   125   121   120   131.

Prob.24 :- Calculate standard deviation.

Size :	10	11	12	13	14	15	16	17	18
Frequency :	5	7	10	11	15	12	6	3	1

Prob.25 :- Calculate the standard deviation from the following data.

Marks :	20	22	24	26	28	30	32	34	36.
No. of Student:	9	13	19	22	24	21	18	14	10

Prob.26 :- Calculate standard deviation.

Marks	:	10-25	25-40	40-55	55-70	70-85
No. of Student:		6	21	44	27	4

Prob.27 :- Calculate standard deviation from the data given below ;-

Age	:	5-7	8-10	11-13	14-16	17-19
No. of Student:		7	12	19	10	2

Prob.28 :- Given : Co-efficient of skewness = -0.4; Mean = 45; Median = 48.
Find out standard deviation.

Prob.29 :- Calculate standard deviation.

$N = 230$

Total of frequency into deviation from assumed mean = -105

Total of deviation square from assumed mean = 733

Step deviation = 10

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Prob.30 :- Compute Co-efficient of skewness from the following data.

$M = 18.8;$ $Q_1 = 14.6;$ $Q_3 = 25.2$

Prob.31 :- Find the co-efficient of skewness if difference of the two Quartile = 8 and sum of two quartiles = 22 and median = 10.5

Prob.32 :- For a certain frequency distribution. Lower quartile = 8; Upper quartile = 10; Median = 9 Calculate the co-efficient of skewness.

Prob.33 :- Calculate co-efficient of skewness from the following data.

Arithmetic average = 56.8;   Median = 59.5 ;

Standard deviation = 14.4

Prob.34 :- From the following data find out Karl Pearson's co-efficient of skewness.

Measurement:	10	11	12	13	14	15
Frequency **:**	2	4	10	8	5	1

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Prob.35 :- Find out which batsman is more consistent in this performance.

	Batsman 'A'	Batsman 'B'
Arithmetic average :	46	50
Standard deviation :	25.5	24.43

Prob.36 :- Compare the consistence in the following cases.

	Mean	S.D.
Share 'A' :	321.63	7.43
Share 'B' :	2540.12	13.89

Prob.37 :- Which group is more uniform in Character?

Group 'A'	Group 'B'
Mean = 20	Mean = 18
S.D. = 14	S.D. = 12

Prob.38 :- Which group is more Variable?

	Group 'A'	Group 'B'
Mean :	60	54.6
S.D. :	18.75	13.68

Prob.39 :- Which group is more Variable?

Group 'A'	Group 'B'
Mean = 24	Mean = 20
Variance = 100	Variance = 196

Prob.40 :- Which of the two group is more consistent?

	Group 'A'	Group 'B'
Mean :	30	25
Variance :	625	400

Prob.41 :- Find out C.V…..

$$= \quad 3.5; \quad n = 10; \quad Em = 145$$

Prob.42 :- From some financial statistic, it is found that the monthly average electricity charges was Rs.2,460 and standard deviation Rs.120. The monthly average direct wages was Rs.42,000 and standard deviation Rs.1200. State which is more variable with proper reason.

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Prob.43 :- Calculate the Semi-inter quartile range and it's Co-efficient.

$$Q_1 \quad = 28.04; \quad Q_3 \quad = 47.16$$

Prob.44 :- Calculate Quartile deviation and it's co-efficient.

When $Q_1 \quad = 157$ and $Q_3 \quad = 165$

Prob.45 :- Calculate the Semi-inter quartile range and it's Co-efficient.

$$Q_1 \quad = 45.43; \quad Q_3 \quad = 64.09$$

Prob.46 :- Calculate the Semi-inter quartile range and it's Co-efficient.

$$Q_1 \quad = 68.15; \quad Q_3 \quad = 96.13$$

Prob.47 :- With the help of following information calculate Quartile Deviation as well as the co-efficient of skewness.

Median	=	18.8
Lower Quartile	=	14.5
Upper Quartile	=	24.92

Prob.48 :- Calculate Quartile Deviation and it's co-efficient.

First Quartile $\quad = \quad 113.8$ and Upper Quartile $\quad = \quad 179.4$

Prob.49 :- From the price of share of Sanjeewan Company and Rahul Company. Find out co-efficient of Quartile deviation.

Sanjeewan Company	Rahul Company
Lower Quartile = 50.75	Lower Quartile = 103.75
Upper Quartile = 55.25	Upper Quartile = 107.00

Prob.50 :- Calculate Quartile deviation from the following data.

Age in years :	15	16	17	18	19	20	21
No.of Students:	4	6	10	15	12	9	4

Prob.51 :- Calculate the Semi-inter quartile range and co-efficient of Quartile Deviation.

Height in c.m. :	153,	155,	157,	159,	161,	162,	165,	167,	169.
No.of Students:	25,	21,	28,	20,	18,	24,	22,	18,	23.

Prob.52 :- Calculate the co-efficient Quartile deviation of the marks of 59 students in Economics as given below, and it's co-efficient.

Marks Group	No. of Students
1-10	4
10-20	8
20-30	11
30-40	15
40-50	12
50-60	6
60-70	3

Prob.53 :- From the following table compute the quartile deviation.

Size :	4 to 8	8 to 12	12 to 16	16 to 20	20 to 24	24 to 28	28 to 32	32 to 36	36 to 40
Frequency :	6	10	18	30	15	12	10	6	2

Prob.54 :- Bowley Co-efficient of Skewness is -.36 ; $Q_1 = 8.6$ and Median = 12.3
Find out upper quartile.

Prob.55 :- For the distribution of Bowleys Co-efficient of Skewness is -.36 ; $Q_1 = 8.6$ and Median = 12.3
What is the co-efficient of quartile deviation?

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