B. COM DEGREE END SEMESTER EXAMINATION OCTOBER 2016

SEMESTER – 1: COMMERCE (CORE COURSE)

COURSE 1 -U1CRCOM1: BUSINESS STATISTICS

For Supplementary (2014 Admission)

Time: Three Hours

Max. Marks: 75

SECTION A

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

1. .... is the positional average
2. The formula for calculating Coefficient of variation is ....
3. The sum of the squared deviations from arithmetic mean is...........
4. Ideal Index is developed by ....
5. The average giving relative importance to all items in the series is ....
6. A distribution having a relatively higher peak than a normal curve is called...........
7. Cumulative frequency is obtained by ....
8. The standard deviation of a series is 12 then variance is ....
9. A time series consists of data arranged in ....orders.
10. If there is negative or zero value in an observation .... cannot be calculated.

$$(10 \times 1 = 10)$$

SECTION B

Answer any eight of the following. Each question carries **2** marks

11. What do you mean by cost of living index?
12. What are the advantages of Geometric Mean?
13. What is harmonic mean?
14. What is Coefficient of variance?
15. Explain the steps in computation of Mean Deviation.
16. What are the uses of Standard Deviation?
17. Calculate median from the following data: 17, 12, 13, 14, 15, 16, 11,
18. Find Range and Coefficient of Range from the following.

05   15   18   25   15   12   35   15   32   30

19. Cities A, B and C are equidistant from each other. A motorist travels from A to B at 30 km/h; from B to C at 40 km/h and from C to A at 50 km/h. Determine his average speed for the entire trip.

20. In a class of 60 students, 45 have passed and their average mark is 60. The total mark secured by the entire class was 3030. Find the average mark of those who have failed. (8 x 2 = 16)

SECTION C

Answer any five questions. Each questions carries **5** marks.

21. Explain the importance of statistics to trade, commerce and business.

22. Explain the problems in constructing index numbers.

23. Describe the components of time series.

24. The mean and S.D. of 100 observations were worked out as 40 and 5 respectively by a computer operator who by mistake took value 50 in place of 40 for one observation. Recalculate the correct mean and SD.

25. Compute Laspeyre's and Paascher's Index numbers.

Item	2010		2016	
	Price (Rs.)	Quantity	Price (Rs.)	Quantity
A	5	20	8	20
B	4	60	4	80
C	3	40	5	40
D	6	30	10	20

26. Coefficient of variation of two series are 60% and 80%. There standard deviations are 24 and What are the Arithmetic Means?

27. The following distribution relating to marks obtained by students in an examination

Marks	0 - 10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No: of Students	3	5	7	9	11	8	4	3

Calculate Standard Deviation

(5 x 5 = 25)

SECTION D

Answer any two questions. Each question carries 12 marks

28. Define Statistics. Explain various features of statistics. What are the major limitations of Statistics?

29. The marks scored by two students, X and Y in examinations are:

X	26	48	60	74	24	62	84	34
Y	30	46	52	65	30	62	44	82

Using coefficient of variation, find which of the students is more consistent?

30. Fit a straight line trend by the method of least squares to the following data. What would be the predicted earnings for the year ended 2018?

Year	2009	2010	2011	2012	2013	2014	2015	2016
Earnings (Rs in lakh)	28	32	46	68	76	70	67	88

31. From the following data, calculate the measure of skewness using the mean, median and standard deviation

Marks	10 - 20	20 - 30	30 - 40	40 - 50	50-60	60 - 70	70 - 80
No. of Students	8	10	23	28	18	22	11

(2 x12 = 24)

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