B.Com(BIM) DEGREE EXAMINATION,APRIL 2020
I Year I Semester
Business Statistics

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. Define Statistics?
2. What are the sources of secondary data?
3. What do you understand by classification?
4. What is histogram?
5. What do you understand by "Central Tendency"?
6. Find the arithmetic mean of the following data. If 3 is added to each then the new AM.

   12, 50, 10, 9, 11, 14, 6
7. Calculate the range and its coefficient from the following:

X	4	6	8	10	12
f	15	25	12	36	30

8. Write the formula for karl pearson's coefficient of skewness
9. Distinguish between correlation and regression (any two point)?
10. Fit a trend line to the following data by the method of semi-average:

Year	1989	1990	1991	1992	1993	1994	1995
Sales	112	115	124	120	118	126	122

11. From the chain base index numbers given below prepare fixed based index numbers:

1991	1992	1993	1994	1995
100	130	140	110	160

12. Compute the standard deviation :

    1,5,4,2,3,8,6,2,8

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Distinguish between Primary and Secondary data?

14. What do you mean by tabulation?

15. Draw a pie-diagram of the following data relating to areas under different food crops.

Food Crops	Rice	Wheat	Barley	Jowar	Bajra	Maize	Others
Area in(000,000 acres)	8	8	4	2	2	5	11

16. From the following data of the marks obtained by 60 students of a class. Calculate the arithmetic mean.

Mark(x) :	20	30	40	50	60	70
No.of students(f):	8	12	20	10	6	4

17. Calculate the correlation coefficient from the following data:

X	9	8	7	6	5	4	3	2	1
Y	15	16	14	13	11	12	10	8	9M

18. Using three year moving averages, determine the trend and short-term fluctuations :

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Production in ton	21	22	23	25	24	22	25	26	27	26

19. From the following data of the whole sale prices of wheat for the ten years construct index numbers taking by chain base method:

Year	Price of wheat	Year	Price of wheat
2001	50	2006	78
2002	60	2007	82
2003	62	2008	84
2004	65	2009	88
2005	70	2010	90

Section C $(2 \times 15 = 30)$ Marks

Answer any **TWO** questions

20. Explain the different types of diagram.

21. Obtain the lines of regression from the following data:

X	4	5	6	8	11
Y	12	10	8	7	5

22. Fit a straight line trend for the following data by the method of least squares:

Year	2001	2002	2003	2004	2005
Sales(Rs.Crs)	70	74	80	86	90

23. Construct the index numbers of price from the following data by applying:

    (a) Laspeyre's Method
    (b) Paasche's Method
    (c) Bowley's Method
    (d) Fisher's Ideal Method

Commodities	2016		2017					
	Price P_0	Quantity Q_0	Price P_0	Quantity Q_0	P_1q_0	P_0q_0	P_1q_1	P_0q_0
A	04	08	08	06	64	32	48	24
B	10	10	12	05	120	100	60	50
C	08	14	10	10	140	112	100	80
D	04	19	04	13	76	76	52	52
					400	320	260	206