

TDC Even Semester Exam., 2019

BUSINESS ADMINISTRATION

( 2nd Semester )

Course No. : BBAE-202

( Quantitative Techniques in Business )

Full Marks : 50

Pass Marks : 17

Time : 2 hours

*The figures in the margin indicate full marks  
for the questions*

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. Calculate mean, median and mode for the following data pertaining to marks in HRM out of 140 marks for 80 students in a class : 10

Marks more than : 0 20 40 60 80 100 120

No. of students : 80 76 50 28 18 9 3

J9/1399

( Turn Over )

2. Discuss the utilities of statistics in business. 10

UNIT—II

3. Find the standard deviation from the weekly wages of ten workers working in a factory : 10

Workers	Weekly wages (₹)
A	1,320
B	1,310
C	1,315
D	1,322
E	1,326
F	1,340
G	1,325
H	1,321
I	1,320
J	1,331

4. Calculate the coefficient of variation from the following data : 10

Profit (₹ in crore) : 10-20 20-30 30-40 40-50 50-60

No. of cos : 8 12 20 6 4

J9/1399

( Continued )

( 3 )

UNIT—III

5. Find the coefficient of correlation by Karl Pearson's method between  $X$  and  $Y$  and interpret its value : 10

$X$	$Y$
57	10
42	60
40	30
33	41
42	29
45	27
42	27
44	19
40	18
56	19
44	31
43	29

6. Calculate the regression equations of  $X$  on  $Y$  and  $Y$  on  $X$  from the following data : 10

$X$ :	1	2	3	4	5
$Y$ :	2	5	3	8	7

( 4 )

UNIT—IV

7. Construct index numbers of price from the following data by applying Laspeyre's method : 10

Commodity	2004		2005	
	Price	Quantity	Price	Quantity
A	2	8	4	6
B	5	10	6	5
C	4	14	5	10
D	2	19	2	13

8. From the following data, compute price index by applying weighted average of price relative method using—

(a) arithmetic mean;

(b) geometric mean : 10

Commodity	$p_0$ (₹)	$q_0$	$p_1$ (₹)
Sugar	18	20 kg	20
Flour	12	40 kg	14
Milk	15	10 lt	16

( 5 )

UNIT—V

9. Fit a straight line trend by the method of least squares to the following data and find the trend values : 10

Year	:	1998	1999	2000	2001	2002	2003
Sales of A/c (₹ in lakhs)	:	10	13	16	21	24	30

10. Write short notes on the following : 5×2=10

- (a) Seasonal variation  
(b) Cyclical variation

★ ★ ★