Reg. No .

S.NO: 395 BATCH: 2007–2016

END OF SEMESTER EXAMINATIONS, APRIL/MAY - 2018
STATISTICS AND ITS APPLICATIONS
SUBJECT CODE: 08UBIT01

MAJOR : B.Sc (IT) SEMESTER : III
TIME : 3 HOURS MAX. MARKS : 75

SECTION – A (5 X 2 = 10)

Answer ALL questions:

1. Write the types of classification.
2. Define correlation.
3. What is the Index numbers?
4. What is cyclical variation?
5. Make a statement about independence of the variables involved.

SECTION – B (5 X 4 = 20)

Answer ALL questions:

6. a) Calculate mean from the following data:

Values:	1	2	3	4	5	6	7	8	9	10
Frequency:	21	30	28	40	26	34	40	9	15	57

(OR)

b) Calculate the median from the following table:

Marks:	10-25	25-40	40-55	55-70	70-85	85-100
Frequency:	6	20	44	26	3	1

7. a) Differentiate correlation and Regression.

(OR)

b) Marks of statistics and mathematics of 5 students are given below. Calculate the spearman's rank correlation coefficient.

Statistics:	85	60	73	40	90
Mathematics;	93	75	65	50	80

8. a) Write the uses of Index numbers.

(OR)

b) Construct an index number for 1991 taking 1990 as base.

Commodity :	A	B	C	D
Price in 1990:	90	40	90	30
Price in 1991:	95	60	110	35

9. a) Explain the components of time series.

(OR)

b) Draw a trend line by the method of semi-averages.

Year:	1991	1992	1993	1994	1995	1996
Sales ('000):	60	75	81	110	106	120

10. a) Which of the following variables will SPSS accept and which will SPSS reject?
age,firstname,@edu,sex,grade,not,anxecell,date

(OR)

b) Using a bar chart, examine the number of students in each section of the class along with whether or not student attended the review session. Does there appear to be relation between these variables.

SECTION – C (3 X 15 = 45)

Answer any THREE questions:

11. Compute the standard deviation and mean deviation from the following data.

Class (x):	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency (t):	8	12	17	14	9	7	4

12. Obtain the two regression equations from the following data.

Price (Rs.)	10	12	13	12	16	15
Amount demanded:	40	38	43	45	37	43

Estimate the likely demand when the price is Rs.20.

13. From the following data Calculate price index numbers for 1995 with 1985 as base by

(i) Laspeyre's method

(ii) Paasche's method

(iii) Marshall-Edgeworth method

(iv) Fisher's Ideal method

Commodity	1985		1995	
	Price	Quantity	Price	Quantity
A	20	8	40	6
B	50	10	60	5
C	40	15	50	15
D	20	20	20	25

14. Calculate trend values by the method of least square from the data given below and estimate the sales for 1993.

Year:	1986	1987	1988	1989	1990
Sales (Rs lakhs)	70	74	80	86	90

15. Briefly explain the graphical concepts in SPSS.

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