

Seat No.	
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**B.B.A. (Part - II) (Semester - IV) Examination,
November- 2017
STATISTICAL TECHNIQUES FOR BUSINESS (Paper - II)
Sub. Code : 43947**

Day and Date : Monday, 06 - 11 - 2017**Total Marks : 40****Time : 03.00 p.m to 05.00 p.m.**

- Instructions :**
- 1) All questions are compulsory.
 - 2) Use of non programmable calculator is allowed.
 - 3) Graph paper will be supplied on request.

Q1) Attempt any two :

- a) State addition law of probability for any two events A card is drawn from a well shuffled pack of playing cards. Find the probability that it is either a spade or a Queen.
- b) Define
 - i) Laspeyre's quantity index number
 - ii) Passche's quantity Index number

Calculate Fisher's Quantity Index Number for the following data.

Commodity	Base year		Current Year	
	Price	Quantity	Price	Quantity
A	6	50	10	60
B	2	100	2	120
C	4	60	6	60

- c) Define time series. Explain :
 - i) Seasonal Variation.
 - ii) Cyclic Variation.

Q2) Attempt any Two

- a) What is control chart? What are the types of control chart? During an examination of 10 pieces of equal length of cloths following are the number of defects 2,3,4,0,5,6,7,4,3,2.

Draw C-chart and comment whether the process is under control or not?

- b) What are the uses of time series? Compute trend values by using 4 yearly centered moving averages.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Value	75	60	55	60	65	70	70	75	85	100

- c) Define price, quantity and value Index Numbers.

The price quotation of four different commodities for 1990 & 1995 are given below. Calculate the index number for 1995 with base as 1990 by using

- i) Simple average price relatives.
- ii) Weighted average of price relatives.

Commodity	Weight	Price in Rs.	
		1995	1990
A	5	4.5	2.0
B	7	3.2	2.5
C	6	4.5	3.0
D	2	1.8	1.0

Q3) Attempt any two

- a) Define the terms
 - i) Process Control
 - ii) Product Control
- b) Define index number State utility of index number.
- c) If two dice are thrown, What is the probability that
 - i) the sum of the numbers on the dice is greater than 8
 - ii) the number on both dice is same.

