

**2015**

( 6th Semester )

**COMMERCE**

Paper No. : BC-603

( **Business Statistics** )

*Full Marks : 70*

*Pass Marks : 45%*

*Time : 3 hours*

( PART : B—DESCRIPTIVE )

( Marks : 45 )

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

1. (a) Define statistics and explain its characteristics in brief. 2+7=9

*Or*

- (b) Distinguish between Primary data and Secondary data. 9

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2. (a) Calculate the mean and standard deviation of the following distribution :  $4+5=9$

Age (in years)	No. of workers
25-30	70
30-35	51
35-40	47
40-45	31
45-50	29
50-55	22

Or

- (b) Find coefficient of correlation and PE for the data :  $7+2=9$

Commodity A	:	64	65	66	67	68	69	70
Commodity B	:	66	67	65	68	70	68	72

3. (a) Define index number. Explain any four different methods of constructing index number.  $1+8=9$

Or

- (b) From the following data of the wholesale prices of pulses for the ten years, construct index numbers taking (i) 2004 as base and (ii) by chain base method :  $4+5=9$

Year	Price per kg (in ₹)
2004	50
2005	60
2006	62



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Year	Price per kg (in ₹)
2007	65
2008	70
2009	78
2010	82
2011	84
2012	88
2013	90

4. (a) Explain the components of a time series. 9

Or

(b) The following data relate to the number of passenger cars (in million) in India sold from 2006 to 2013 :

Year	Number
2006	6.7
2007	5.3
2008	4.3
2009	6.1
2010	5.6
2011	7.9
2012	5.8
2013	6.1

(i) Fit a straight line trend to the data through 2011 only.

(ii) Use your result in (i) to estimate production in 2013. 9

( 4 )

5. (a) Define sampling. Explain the different methods of sampling in brief. 2+7=9

Or

- (b) A bag contains 30 balls numbered from 1 to 30. One ball is drawn at random. Find the probability that the number of the ball drawn will be a multiple of (i) 5 or 7, and (ii) 3 or 7. 9

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Or

3. (a)

Year	Number
2006	0.7
2007	2.3
2008	4.3
2009	6.1
2010	7.0
2011	7.7
2012	8.8
2013	6.1