



DF-2690

Second Year B. Com. (Hons.) (Sem. III) Examination
March / April - 2016
Business Statistics : Paper - III

Time : Hours]

[Total Marks : 50

Instructions :

(1)

नीचे दशांशके निशानीवाणी विगतो उत्तरवही पर अवश्य लिखनी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="SECOND YEAR B. COM. (HONS.) (SEM. 3)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="BUSINESS STATISTICS - 3"/>	<input type="text"/>
Subject Code No. : <input type="text" value="2"/> <input type="text" value="6"/> <input type="text" value="9"/> <input type="text" value="0"/>	Section No. (1, 2,.....) : <input type="text" value="Nil"/>
Student's Signature	

- (2) All questions are compulsory.
(3) Figures to the right indicate full marks of the questions.
(4) Simple calculator can be used.

- 1 (1) Define statistics as a discipline. Also bring out its scope. 4
(2) State the methods of collecting primary data and describe briefly any one of them. 4
(3) State the significance and utility of diagrammatic representation of data. 3
(4) In usual notation, if $n = 4$, $\Sigma y = 64.08$, $\Sigma x^2 = 5$ and $\Sigma xy = 0.47$ then obtained the linear trend equation. 2
- 2 (1) The marks obtained by 10 students in an examination of statistics are 70, 65, 68, 70, 75, 73, 80, 70, 83 and 86. Find (i) Range, (ii) Mean absolute deviation and (iii) Variance. 4

- (2) Calculate quartile deviation from the following data : 4

Marks	30-	35-	40-	45-	50-	55-	60-
Obtained :	34	39	44	49	54	59	64
No. of Students :	5	8	12	20	27	20	8

- (3) If first four raw moments measured from point '4' are 2, 15, 96 and 731 respectively. Find first four moment about mean using it. 3

- (4) The fourth moment about mean for a frequency distribution consisting of 100 observations is 2359 with s.d. 6.3. Obtain moment coefficient of Kurtosis and comment on the type of the distribution. 2

- 3 (1) Define : 3

- (i) Sample space
- (ii) Mutually exclusive events
- (iii) Independent events

- (2) A fair die is thrown twice. Determine the probability of getting 2, 4, 5 or 6 on first throw and 1, 4 or 6 on the second throw. 3

- (3) A bag contains 4 red balls, 3 white balls and 5 black balls. Two balls are drawn one after the other without replacement. Find the probability that first is white and second is black ball. 3

- (4) From the following distribution, find K and then $E(x)$ and $V(x)$: 3

$x:$	0	1	2	3
$p(x):$	0.1	$2K$	$3K$	$4K$

4 (1) State the difference between cyclical variations and seasonal variations. 4

(2) Fit the straight line trend equation for the following data and estimate trend value for the year 1971 : 5

Year:	1957	1958	1959	1960	1961	1962	1963
Production (in tons):	3512	3472	3464	3174	2969	2960	2715

Year:	1964	1965	1966	1967	1968	1969
Production (in tons):	2460	2300	2334	2250	1960	1635

(3) Explain ratio to trend method for finding seasonal variations. 3
