

**UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)**



**उत्तराखंड मुक्त विश्वविद्यालय हल्द्वानी (नैनीताल)**

**Programme Name-BBA –Third Semester**

**Programme Code-BBA-12**

**Course Name- Business Statistics**

**Course Code-BBA 302**

**Maximum Marks-40**

**Session -2016-17, Summer**

**Last Date of Submission: 15<sup>th</sup> December, 2016**

**Section-A**

Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answer 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

**Discuss the following (1-6) –**

1. Types of Tables
2. Quartile Deviation
3. Scatter Diagram
4. Measures of Skewness
5. Rank correlation
6. Standard Error
7. The sales of pianos at Kiran Musical Enterprise for the last ten months have been 104, 99, 110, 120, 105, 112, 109, 117, 120 and 125 respectively. The owner is interested in a greater degree of smoothing and hence, he has set the value of the smoothing factor  $\alpha = 0.3$ . Calculate the expected sale for next month.
8. Obtain regression equation of Y and X and estimate Y when X=55 from the following:

X:	40	50	38	60	65	50	35
Y:	38	60	55	70	60	48	30

**Section-B**

Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answer 02 questions only.

1. State and explain Fisher's Ideal formula for Price Index Numbers and why is it called ideal?
2. Explain the concept of regression. How does it differ from correlation? Describe its utility.
3. Find mean, median, standard deviation and a coefficient of skewness from the following data of ages of students of a school.

Age	5-7	8-10	11-13	14-16	17-19
No. of students	7	12	19	10	2

4. The following frequency distribution represents the number of days during a year that the faculty of the college was absent from work due to illness.

Number of Days	Number of Employees
0-2	5
3-5	10
6-8	20
9-11	10
12-14	5

- i) Construct a frequency distribution for this data.
- ii) Construct a greater than cumulative frequency distribution as well as a less than cumulative frequency distribution for this data.
- iii) How many employees were absent for less than 3 days during the year?
- iv) How many employees were absent for more than 8 days during the year?
- v) Draw a frequency polygon for this data.
- vi) Draw the cumulative frequency ogive (greater than) for this data.