10. Solve the following :

(a) Two dice are tossed. What is the probability that the total is divisible by 3 or 4 ?

(b) A student applies for a job in two firms X and Y. The probability of his being selected in firm X is 0.7 and being rejected in the firm Y is 0.5. The probability of at least one of his applications being rejected is 0.6. What is the probability that he will be selected in one of the firms ?

(01/13-II)

4064

B. Com. (Second Year) EXAMINATION

BUSINESS STATISTICS

Fourth Paper

Time : Three Hours *Maximum Marks : 80*

Note : Attempt only *Five* questions, selecting *one* question from each Unit. All questions carry equal marks.

Unit I

1. What do you mean by statistics ? Explain its functions and scope.

2. Explain the following :

(a) Properties of regression coefficient

(b) Find regression equation X and Y from the following data :

X : 20 22 24 26 28 30 32

Y : 30 35 38 45 52 60 55

3. From the following information find out :

   (a) Which factory pays larger amount as daily wages ?

   (b) What is average daily wage of workers of two factories taken together ?

   (c) Explain the characteristics of good average :

	Factory A	Factory B
No. of wage earners	250	200
Average daily wages	Rs. 2	Rs. 2.50

Unit II

4. Explain the concept of index numbers. Discuss the problems in the construction of index numbers.

5. Calculate the Laspeyre's, Paasche's and Fisher's price index the following information :

Expenses	A	B	C	D
Prices (2005) Rs.	40	50	70	20
Prices (2007) Rs.	60	60	90	10
Quantity (2005)	3	4	2	3
Quantity (2007)	2	4	5	5

6. From the following data of production of a factory in ('000) tonnes :

   (a) Fit a straight line trend by method of least square and show the trend values

   (b) Convert your annual trend equation into a monthly trend equation

   (c) What is rate of growth of production per month ?

Year	1997	1998	1999	2000	2001	2002	2003
Production	70	75	90	91	95	98	100

7. Define a time series. How is it useful ? Explain the various components of a time series.

Unit III

8. Define probability and explain the approaches to probability. Also discuss its applications in business.

9. Differentiate between binomial and Poisson probability distributions.