Question Paper Code : 1756

B.B.A. (I.B.) (Semester-II) Examination, 2018

STATISTICS FOR BUSINESS DECISION

[IB-202]

Time : Three Hours] **[Maximum Marks : 70**

Note : Answer **five** questions in all. Question **no. 1** is **compulsory**. Besides this, attempt **one** question from each Unit.

1. Answer the following questions: [3x10=30]

   (a) Why is statistics required for business decisions?

   (b) What is median ? State its merits and demerits.

   (c) What are the limitations of statistics ?

   (d) What are cyclicles ?

   (e) Why is sampling required ?

   (f) What are non-sampling errors ?

   (g) In a simultaneous toss of two coins, find the probability of :

      (i) Getting 2 heads

      (ii) Exactly 1 head

   (b) Independent events

   (c) Addition and Multiplication theorems

   (d) Conditional Probability

   (e) Bayes Theorem

9. (a) A bag contains 6 white and 9 black balls. Two drawings of 4 balls are made such that :

   The balls are replaced before the second trial. Find the probability that the first drawing will give 4 white and the second 4 black balls in each case. [6]

   (b) Write a note on Permutation and combinations. [4]

----- x -----

(h) Find out the predicted value of Y, if X_1=82, X_2=130. The equation is as follows :

$Y_c = b_0+b_1X_1+b_2X_2$

(i) How can range be used for business dicisions ?

(j) Find out median from the information given :

Age	25	35	42	54	68	73
No. of Persons	4	6	5	8	3	2

UNIT-I

2. (a) Explain briefly the scope of statistics in business decisions. [5]

(b) Discuss various methods of sampling. [5]

3. Find out Mean and Median from the following data on sales in Rs. lakhs : [10]

Mid Value	10	20	30	40	50	60
Frequency	3	4	6	8	5	4

UNIT-II

4. Find out quartile deviation and Mean deviation from mean from the following data on net worth in crores of Rs. :[10]

x	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f	18	16	15	12	10	5	2	2

5. Calculate Karl Pearson's coefficient of correlation from the following data : [10]

x	1	2	3	4	5	6	7	8	9
y	12	11	13	15	14	17	16	19	18

UNIT-III

6. You are given the following data : [10]

	x	y
Mean	36	85
S.D.	11	8

r = 0.66

Find out :

(a) Two regression coefficients

(b) Two regression equations

(c) Values of x when y= 75

(d) Value of y when x = 60

7. Explain the components and need of time series analysis for business decisions. [10]

UNIT-IV

8. Explain the following : [2x5=10]

(a) Mutually exclusive events