NP – 302

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III Semester B.B.A. Examination, March/April 2023
(NEP) (2022 – 23 and Onwards) (Freshers)
BUSINESS ADMINISTRATION
Paper – 3.3 : Business Statistics

Time : 2½ Hours Max. Marks : 60

Instruction : *Answers should be written in* ***English*** *only.*

SECTION – A

Answer **any 6** of the following sub-questions. **Each** sub-question carries **2** marks. **(6×2=12)**

1. a) Define Statistics.
   b) What is Pie chart ?
   c) What do you mean by Arithmetic mean ?
   d) Write the formula of co-efficient of variation.
   e) State the meaning of regression analysis.
   f) Why Fisher's method is called as an ideal index ?
   g) What is primary data ?
   h) If $b_{xy} = 1.2$, $b_{yx} = 0.8$, find r.

SECTION – B

Answer **any three** of the following questions. **Each** question carries **4** marks. **(3×4=12)**

2. Explain any 4 functions of Statistics.
3. In a sample study about coffee habit in a town. The following information was received. Female – 40%, the total coffee drinkers were 45% and male non coffee drinkers were 20%. Present the data in a tabular form.
4. What are the merits of standard deviation ?
5. From the following details, calculate the value of N :
   r = 0.61, P.E. = 0.1312.

P.T.O.

6. From the following data, construct the Laspeyres Index number :

Commodity	Q_0	P_0	P_1
A	100	5	6
B	80	4	5
C	60	3	5
D	30	12	9

SECTION – C

Answer **any three** of the following questions. **Each** question carries **12** marks. **(3×12=36)**

7. Explain the various methods of classification of data.

8. A rupee spent on Khadi is distributed as follows :

Farmer	→	20 paise
Spinner	→	30 paise
Weaver	→	25 paise
Dyes	→	10 paise
Agent	→	15 paise
Total		**100 paise**

Present the data in the form of Pie diagram.

9. Find mean, median and mode from the following data :

Profits (in lakhs)	No. of Companies
4 – 7	6
8 – 11	10
12 – 15	18
16 – 19	30
20 – 23	15
24 – 27	12
28 – 31	10
32 – 35	6
36 – 39	2

10. Compute Karl Pearson's co-efficient of correlation between X and Y from the following information :

X	80	100	90	100	130	100	170	140	170
Y	15	15	14	21	17	18	16	16	21

11. Calculate the index number using both the Aggregate Expenditure Method and Family Budget Method for the year 2017 with 2016 as the base year from the following data :

Commodity	**Quantity in Units in 2016**	**Price Per Unit in 2016 (₹)**	**Price Per Unit in 2017 (₹)**
Rice	100	8.00	12.00
Wheat	25	6.00	7.50
Eggs	10	5.00	5.25
Tea	20	48.00	52.00
Milk	25	15.00	16.50
Sugar	30	9.00	27.00