



DCAM – 303

**III Semester B.B.A. (Aviation Mgt.) Examination, April/May 2023
(NEP)**

STATISTICS FOR BUSINESS DECISIONS

Time : 2½ Hours

Max. Marks : 60

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

SECTION – A

1. Answer **any five** of the following sub-questions. **Each** sub-question carries **two** marks. **(5×2 =10)**
- What are the types of Statistics ?
 - What is sampling ?
 - What is the measure of dispersion ?
 - What is regression co-efficient ?
 - What is Snow ball sampling ?
 - What is cyclical variation ?
 - State any two uses of Index numbers.

SECTION – B

Answer **any three** of the following questions. **Each** question carries **five** marks. **(3×5=15)**

- Write the distinction between classification and tabulation.
- Explain the merits and demerits of Range.
- Calculate the Karl Pearson's Co-efficient of Correlation from the following Data :

Marks in Economics : 48 35 17 23 47

Marks in Banking : 45 20 40 25 45

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5. The mean age of 100 persons is 30 years. If the mean age of group of men is 32 years and the group of women is 27 years, Find the number of men and women.
6. Calculate the co-efficient of correlation for the following data :
- A1** : 10 6 9 10 12 13 11 9
- A2** : 9 4 6 9 11 13 8 4

SECTION – C

Answer **any three** of the following questions. **Each** question carries **eight** marks.

(3×8=24)

7. Explain in brief the methods of sampling.
8. Calculate standard deviation for the following data :
- | | | | | | | | | | |
|-----------------------|---|----|----|----|----|----|-----|-----|-----|
| Wages | : | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| No. of workers | : | 8 | 5 | 9 | 4 | 6 | 7 | 3 | 2 |
9. Calculate the trend values by applying least square method for the following data :
- | | | | | | | | | |
|--------------|---|------|------|------|------|------|------|------|
| Year | : | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| Sales | : | 200 | 250 | 280 | 350 | 325 | 400 | 420 |
10. Calculate the mode from the following data:
- | | | | | | | | | | |
|----------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| X | : | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 |
| F | : | 5 | 12 | 22 | 25 | 14 | 10 | 8 | 4 |
11. Find the regression equations for the following data and also produce the average value of Y when X is 9
- | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|
| X | : | 3 | 6 | 5 | 4 | 7 | 2 | 8 | 1 |
| Y | : | 3 | 2 | 3 | 5 | 3 | 6 | 6 | 3 |



SECTION – D

Answer **any one** of the following questions. **Each** question carries **eleven** marks.

(1×11=11)

12. Explain in detail scales of measurement.
13. Construct the cost of living index numbers for 2002 taking 2000 as base year under aggregate expenditure and family budget method :

Articles	Qty consumed	Unit	Price in 2000 Rs.	Price in 2002 Rs.
Wheat	10 Kg	Kg	12.50	15
Rice	6 Kg	Kg	15.00	19
Gram	5 Kg	Kg	30	32
Pulses	8 Kg	Kg	25	30
Ghee	2 Kg	Kg	40	60
Sugar	10 Kg	Kg	15	12
