

Code No: 981AB

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
UCMH, JNTUH BBA (Data Analytics) I Year I Semester Examinations, February/March-2023
BUSINESS STATISTICS

Time: 3 Hours

Max.Marks:60

Note: This question paper contains two parts A and B. i) **Part- A** for 10 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question which consists of ten sub-questions from all units carrying equal marks.
- Part-B consists of **ten questions** (numbered from 2 to 11) **carrying 10 marks each**. From each unit, there are two questions and the student should answer one of them. Hence, the student should answer five questions from **Part-B**.

PART- A**(10 Marks)**

- 1.a) Write any two applications of statistics. [1]
- b) Explain any two functions of statistics. [1]
- c) Define Secondary data. [1]
- d) What is questionnaire? [1]
- e) Calculate Median of 5, 6, 10, 8, 15, 3, 4. [1]
- f) Write the relation between mean, median, and mode. [1]
- g) Define quartile deviation. [1]
- h) Define mean deviation. [1]
- i) Give sources of information. [1]
- j) What is diagram? [1]

PART-B**(50 Marks)**

- 2.a) Define the term "Statistics" and discuss its functions and limitations. [6+4]
 - b) What are the objectives of statistics? [6+4]
- OR**
- 3.a) Explain the importance of Statistics with respect to Business and Industry. [6+4]
 - b) Discuss briefly about development of statistics. [6+4]

- 4.a) What are the points that are to be considered in the use of secondary data? [5+5]
- b) Discuss the merits and demerits of primary data. [5+5]

OR

5. What are the essentials of a questionnaire? Draft a questionnaire not exceeding ten questions to study the views on educational programmes of television and indicate an outline of the design of the survey. [10]
6. Delta Tiers employed 159 employees for a factory located at Kanpur. The company's management is worried about the high absenteeism rate in the organization. Before taking any corrective action, the management has decided to calculate the median leaves availed by the employees. The following table shows vacations availed in a year and the number of employees who availed vacations. Compute Mean, median and mode from the data. Vacations availed in a year and the number of employees who availed vacation. [10]

Vacations availed	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Number of employees	2	18	30	45	35	20	6

OR

7. The following data reveals the scores obtained by 40 employees during evaluation of a training programme. Scores (out of 100) are as shown below:

42 45 65 76 89 90 67 45 34 56 87 98 78 45 45 56 76 89 45 34 23 56
45 32 87 56 67 56 34 87 98 12 34 42 45 82 54 88 61 79

Construct a frequency distribution based on the above data.

[10]

8. The consumption of printing paper reams (in units) for the first 11 months of a computer operator is given as 10, 11, 12, 15, 18, 22, 8, 10, 12, 15, 25. Find the median, Q1, and Q3.

[10]

OR

9. Find the standard deviation from the following distribution:

[10]

Income(Rs)	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Number of persons	6	12	18	13	9	4	1

- 10.a) Discuss the various one-dimensional diagrams.

- b) The following table shows the number of employees located at different regions for a manufacturing company. Construct a bar chart from the data given in the table below: [5+5]

Region	Employees
Raipur	100
Nagpur	120
Indore	60
Bhopal	76
Gwalior	80
Kanpur	140
Bilaspur	50

OR

- 11.a) What is tabulation? Explain the various parts of a Table?

- b) Indian steel companies do not invest much on research and development. The following table exhibits the amount spent on research and development by various public and private-sector steel plants in India for 2003-2004. Construct a pie chart for the data given in the table below:

[5+5]

Company	Amount spent on research and development for 2003-2004 (in million rupees)
Steel Authority of India Ltd	719.1
Tata Iron & Steel Co. Ltd	242.6
Mukand Ltd	2.6
Jindal Steel Works Ltd	24.0
Essar Steel Ltd	2.6

---00000---