Roll No. | | | | | | | | | | |

Total No. of Questions : 07

Total No. of Pages : 02

BCA (Sem.–2)

FUNDAMENTALS OF STATISTICS

Subject Code : UGCA-1907

M.Code : 77415

Date of Examination : 04-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

Q1. Write briefly :

a) Name any two uses of Statistics.

b) What is meant by Primary data?

c) Enlist any two objectives of Data Classification.

d) How tabulation is carried out?

e) What are different types of Graphs?

f) What are the two characteristics of Average?

g) Define Arithmetic mean.

h) What is Mean deviation?

i) What is meant by Dispersion?

j) Write the mathematical formula of correlation.

SECTION-B

Q2. a) Discuss any five features of Statistics.

b) What are Statistical Errors? Explain.

Q3 a) What are different methods of classification of data? Explain

b) Explain the components of statistical table.

Q4. What are merits and demerits of Arithmetic Mean? Write different formulas used for calculation of Arithmetic Mean.

Q5. Explain different measures of dispersion by taking suitable examples.

Q6. a) Discuss the merits and demerits of range.

b) Write the steps to calculate mean deviation.

Q7. a) What is meant by standard deviation? Explain.

b) Discuss the steps to calculate Variance.

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Total No. of Questions : 07

BCA (Sem.–2)

FUNDAMENTALS OF STATISTICS

Subject Code : UGCA-1907

M.Code : 77415

Date of Examination: 17-11-2023

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. **Answer briefly :**

   a) Differentiate between primary data and secondary data.

   b) How will you check the authenticity of secondary data?

   c) "*Statistics can prove anything*" Discuss this statement.

   d) Give formula to calculate mean, median and mode in individual discrete and continuous series.

   e) Which method of Central tendency out of mean, median and mode do you consider to be the best and why?

   f) The daily pocket allowance (in Rs) of 10 students is given below:

15	20	30	22	25	18	40	50	55	65

   Calculate the A.M. by taking 40 as assumed mean.

   g) Write down the formula to calculate D_7 and P_{45} in continuous series.

   h) List down the merits and demerits of Median.

   i) Importance of measure of Dispersion.

   j) What is meant by Coefficient of Variation? What is its usefulness?

SECTION-B

2. "*Statistics affects everybody and touches life at every place*" discuss the importance of statistics in light of the above stated statement.

3. Explain the various methods for collecting primary data and secondary data.

4. **From the following data construct histogram and frequency polygon:**

Life of bulbs(in hrs)	800 to 1000	1000 to 1200	1200 to 1400	1400 to 1600	1600 to 1800	1800 to 2000	2000 to 2200
No. of bulbs	6	10	24	30	20	6	4

5. A class of 16 boys and 16 girls were given a common intelligence test and the following marks were obtained :

Sr. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Boys	15	35	43	46	48	48	49	50	55	56	60	64	71	75	80	85
Girls	10	30	45	52	55	58	61	61	63	69	70	72	74	75	75	90

Calculate the Median marks of boys and girls.

6. Calculate the Mode for the following data:

Class	20-24	25-29	30-34	35-39	40-44	45-49
Frequency	3	6	5	14	7	8

7. Compute standard deviation from:

Marks	Less than 10	20	30	40	50	60
No. of Females	8	12	20	26	35	50

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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.–2)

FUNDAMENTALS OF STATISTICS

Subject Code : UGCA-1907

M.Code : 77415

Date of Examination : 17-12-2024

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. **Write briefly:**

   a. Discuss the importance of Statistics.

   b. Distinguish between primary and secondary data.

   c. What is the importance of classifying data in statistics?

   d. Explain the purpose of tabular presentation in data classification.

   e. A company collected data on the monthly sales figures of their top five products:

   120, 150, 180, 200 and 250 units. Calculate the arithmetic mean.

   f. What is meant by the term "Central Tendency" in Statistics?

   g. Calculate the mode for the following data set: 4, 5, 6, 6, 7, 8, 6, 9.

   h. Calculate the coefficient of variation for the following data where the standard deviation is 10 and the mean is 50.

   i. Define "Range".

   j. Discuss the merits & demerits of Mean Deviation.

SECTION-B

2. Discuss the scope, functions, and limitations of statistics. Also, explain why there is distrust in statistics?

3. Explain the different methods of data collection, including both primary and secondary data. Highlight the potential sources of statistical errors.

4. Create a frequency distribution and calculate the cumulative frequency for the following data set:

   7, 8,12,13, 8,14,11,10,15,13, 9, 8,12,14,10.

5. Describe the different types of diagrams and graphs used in presenting data. What are the advantages and disadvantages of using these visual aids?

6. Calculate the arithmetic mean, median, and mode for the following data and discuss when each measure is most appropriate: 5, 8, 12, 5, 10, 8, 15, 10, 8, 5.

7. Calculate the range, mean deviation, and standard deviation for the following data set: 5,10,15,10, 20, 25, 30, 25, 20.

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Total No. of Questions : 07

BCA (Sem.–2)

FUNDAMENTALS OF STATISTICS

Subject Code : UGCA-1907

M.Code : 77415

Date of Examination : 21-05-2025

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION - A

1. **Write briefly:**

   a. Statistics

   b. Primary and secondary data

   c. Histogram

   d. Objectives of tabulation

   e. Rounding off data

   f. Range and its Coefficient

   g. Standard deviation

   h. Continuous frequency distribution

   i. Geometric mean

   j. Mode

SECTION - B

2. Discuss scope and limitation of statistics.

3. What are the different methods of collecting primary data? Explain any two methods with their merits and demerits.

4. What do you mean by diagrammatic representation of data? Discuss its utility. What are the advantages and disadvantages of using diagrams for the presentation of data?

5. Calculate Mean and Median for the following data :

Marks: Below	20	30	40	50	60	70	80	90
No. of students:	4	16	56	97	124	137	146	150

6. Calculate range and standard deviation for the following:

Weight (in kgs)	44-46	46-48	48-50	50-52	52-54
No. of persons:	3	24	27	21	5

7. a) Following is the data about the market share of four brands of TV sets sold in Amritsar. Present the data by a pie diagram:

Brands of TV sets	Samsung	LG	Onida	Sony
Units sold in Amritsar	625	500	438	312

   b) Draw more than type Ogive for the following data:

Weight (in kgs)	40-45	45-50	50-55	55-60	60-65	65-70	70-75
No. of students	3	5	9	12	5	4	2

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