

GOVERNMENT COLLEGE (AUTONOMOUS), RAJAHMUNDRY
I.B.COM ACCOUNTING HONORS
222404: BUSINESS STATISTICS
QUESTION BANK

ESSAYS 6 Marks

UNIT-I

1. Construct Histogram from the following Data and Locate the mode.

Class Interval	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	5	9	13	21	20	15	8	3

2. Construct Histogram and Frequency Polygon from the following Data.

Class Interval	5-15	15-25	25-35	35-45	45-55	55-65
Frequency	8	13	21	11	9	6

3. Present the following data in Simple Bar Diagram

Marks	10	15	20	25	30	35
No. Of students	6	8	16	20	11	3

4. Develop Histogram with the following Data.

Marks	10-20	20-30	30-40	40-50	50-60	60-70
Students	5	10	25	45	10	5

5. Define Business Statistics. Explain the Limitations of Business Statistics.

6. Discuss about the Collection of data.

UNIT-II

1. Find out the Arithmetic Mean from the following data.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of Students	5	9	13	21	20	15	8	3

2. Find out the Median from the following data.

Marks	0-10	10-20	20-30	30-40	40-50
No. of Students	4	9	15	8	3

3. Find out Mode from the following data.

Marks	100-200	200-300	300-400	400-500	500-600	600-700
Students	2	10	18	45	14	5

4. Determine the Arithmetic Mean from the following information.

Wages	>2	>4	>6	>8	>10	>12
No. of workers	50	48	32	21	14	6

5. Use the following data to find the Median.

Marks	<10	<20	<30	<40	<50
No. of Students	2	9	21	26	30

6. Determine the Mode from the following data.

Wages	0-2	2-4	4-6	6-8	8-10	10-12
No. of Workers	3	8	11	35	9	6

UNIT-III

1. Find the Quartile Deviation from the following data.

Marks	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
No. of Students	2	8	12	20	14	11	3	1

2. Compute Mean Deviation from the following data.

Marks	100-150	150-200	200-250	250-300	300-350
No. of Students	4	9	15	8	3

3. Calculate Standard Deviation from the following data

Marks	10-20	20-30	20-30	30-40	40-50	50-60
Students	3	7	21	26	11	5

4. Find the Standard Deviation from the following data.

Wages	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
No. of workers	2	6	11	16	18	9	6	3

UNIT-IV

1. Rank of Students in Accounting and Statistics are given, Calculate Coefficient of Rank Correlation.

Ranks in Accounting	3	4	2	6	1	5
Ranks in Statistics	3	1	4	2	5	6

2. Calculate Coefficient of Correlation.

Price	8	11	16	19	10	6
Demand	6	14	20	21	6	2

3. Compute Karl Pearson's Coefficient of Correlation.

X	1	2	3	4	5	6	7	8	9	10
Y	11	12	13	14	15	16	17	18	19	20

4. Marks of Students in Accounting and Statistics are given, Calculate Coefficient of Rank Correlation.

Marks in Accounting	35	65	68	97	46	89
Marks in Statistics	74	85	39	45	68	98

UNIT-V

1. Calculate the Price Index from the following Data and Check whether Time Reverse test is satisfied:

Commodity	Base year		Current year	
	Price (Rs.)	Quantity (Kgs.)	Price (Rs.)	Quantity (Kgs.)
A	32	50	30	50
B	30	35	25	40
C	16	55	18	50

2. Construct Price Index Number from the following data by applying a) Laspeyere's method b) Paasche's method c) Bowley's method d) Fisher's method. Take the base year as 2021

Commodity	2021		2022	
	Price	Quantity	Price	Quantity
A	8	10	10	9
B	10	12	15	12
C	12	8	18	7
D	15	6	16	8

3. Construct Fisher's Ideal Index number from the following data and show whether it satisfies Time reversal and Factor reversal Test.

Item	A	B	C	D	E
P0	10	11	14	8	12
Q0	10	11	14	8	12
P1	12	11	17	10	13
Q1	45	52	30	29	20

4. The following are the group index numbers and the group weights of an average working class family budget. Construct the Cost of Living Index by assigning the given weights.

Group	Index Numbers	Weights
Food	200	60
Fuel & Lighting	180	15
Rent	150	10
Clothing	120	8
Miscellaneous	130	7

SHORT ANSWERS 2 MARKS

UNIT-I:

1. Define Statistical Inquiry
2. Write about Geographical Classification
3. Explain about Direct Personal Investigation
4. State about Good Questionnaire
5. State the type of Chronological Classification

UNIT-II

1. Find A.M 4, 12, 18, 22, 28, 34, 38
2. Calculate Median 14, 19, 23, 34, 27, 12, 8
3. Determine Mode 6, 11, 20, 14, 19, 11, 29, 42, 20, 11
4. Define Harmonic Mean

UNIT-III

1. Calculate Range 10, 20, 30, 40, 50, 60, 70
2. Calculate Lower Quartile (Q1) : 25,36,78,65,26,34
3. Find Variance : S.D = 23
4. Define Lorenz Curve

UNIT-IV

1. Define Positive Correlation
2. Degrees and Interpretation of Correlation
3. Find Probable Error : $N = 64$ $r = 0.8$
4. $\sum D^2 = 64$ $N = 10$ Find Rank Correlation

UNIT-V

1. Define Index Numbers
2. Cost of Living Index
3. Time Reversal Test
4. $\sum P_0Q_1 = 89$, $\sum P_1Q_0 = 76$ $\sum P_1Q_1 = 56$ $\sum P_0Q_0 = 64$ Find Laspeyres's Index Number.

VERY SHORT ANSWERS 1 MARK

UNIT-I

1. Primary Data
2. Secondary Data
3. Class Interval
4. Frequency Distribution

UNIT-II

1. Arithmetic Mean
2. Median
3. Mode
4. Geometric Mean

UNIT-III

1. Formula For Standard Deviation
2. Range
3. Mean Deviation
4. Formula for Coefficient of standard Deviation

UNIT-IV

- 1. Correlation**
- 2. Formula for Karl Pearson's Coefficient of Correlation**
- 3. List out the types of Correlation**

UNIT-V

- 1. Formula for Paasche's Index Number**
- 2. Factor Reversal Test**
- 3. Family Budget Method**

Multiple Choice Questions One Mark

UNIT – I

- In statistics, _____ classification includes data according to the time period in which the items under consideration occurred.
a) Chronological b) Alphabetical c) Geographical d) Topological
- The _____ process would be required to ensure that the data is complete and as required.
a) Tabulation b) Analysis c) Editing d) Ordering
- A _____ variable is a variable whose values can theoretically take on an infinite number of values within a given range of values.
a) Continuous b) Discrete c) Random d) Both (a) and (b)
- When an investigator uses the data which has already been collected by others, such data is called _____
a) Primary data b) Collected data c) Processed data d) Secondary data
- _____ is one which is collected by the investigator himself for the purpose of a specific inquiry or study.
a) Secondary data b) Primary data c) Statistical data d) Published data

UNIT – II

- Which partition value divides the series into two equal parts.
A) Deciles B) Median C) Quartiles D) Mode
- What is the modal value for the numbers 4, 3, 8, 15, 4, 3, 6, 3, 15, 3, 4.
A) 3 B) 4 C) 6 D) 15
- One of the following methods of calculating mode is:
A) $\text{Mode} = 3 \text{ Median} - 2 \text{ Mean}$ B) $\text{Mode} = 2 \text{ Median} - 3 \text{ Mean}$ C) $\text{Mode} = 3 \text{ Median} + 2 \text{ Mean}$ D) $\text{Mode} = 2 \text{ Median} - 2 \text{ Mean}$
- The classes in which the lower limit or the upper limit is not specified are known as:
a) Open end classes b) Close end classes c) Inclusive classes d) Exclusive classes
- The number of observations in a particular class is called:
a) Width of the class b) Class mark c) Frequency d) None of the above

UNIT – III

- The mean deviation is minimum when deviations are taken from:
A) Mean B) Median C) Mode D) None of these
- Standard deviation is always computed from
A) Mean B) Median C) Mode D) Geometric mean
- Calculate the range of the data sets 61,22,34,17,81,99,42,94.
A) 90 b) 82 c) 83 d) 86
- Which of the following are methods under measures of dispersion?**
 - Standard deviation
 - Mean deviation

- c. Range
 - d. All of the above
5. **The coefficient of variation is a percentage expression for _____.**
- a. Standard deviation
 - b. Quartile deviation
 - c. Mean deviation
 - d. None of the above

UNIT – IV

1. The rank correlation coefficient was discovered by.....

 - A) Fisher B) Spearman C) Karl Pearson D) Bowley

2. The value of the correlation coefficient lies between

 - A) -1 and +1 B) -1 and 0 C) 0 and 1 D) None

3. The maximum value of the Rank Correlation coefficient is

 - A) +1 B) -1 C) 0 D) None of these

4. Which of the following are types of correlation?

 - a. Positive and Negative
 - b. Simple, Partial and Multiple
 - c. Linear and Nonlinear
 - d. All of the above

5. The correlation for the values of two variables moving in the same direction is

 - A) Perfect positive
 - B) Negative
 - C) Positive
 - D) No correlation.

UNIT – V

1. Which index number is called as ideal index number.

 - A) Lasperys B) Paasches C) Fisher D) None of Above

2. **Which of the following methods is used to calculate the Consumer Price Index?**

 - a. Laspeyres's formula
 - b. Fisher's formula
 - c. Palgrave's formula
 - d. None of the above

3. How many types are used for the calculation of Index Numbers .

 - A) 2 B) 3 C) 4 D) 5

4. **Consumer Price Index Indicates**

 - A) Rise B) Fall C) Both A and B D) None of the Above

5. **Abbreviation of FRT**

 - A) First Reversal Test B) Factor Reversal Test C) Both A and B D) None of the Above

*****THE END *****