

MA RURAL DEVELOPMENT
THIRD SEMESTER
STATISTICAL ANALYSIS & COMPUTER APPLICATION
MRD-302

Duration: 3 Hrs.

Marks: 70

PART : A (OBJECTIVE) = 20
PART : B (DESCRIPTIVE) = 50

[PART-B : Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

[Answer question no. One (1) & any four (4) from the rest]

1. "Decision making process becomes more efficient with the help of statistics". (10)
In this context explain the characteristics of statistics.
2. Distinguish between: (a) Primary and Secondary Data (10)
(b) Qualitative and Quantitative Data
3. In an office there are 84 employees. The distribution of their salaries are as follows: (10)

| | | | | | | |
|-------------|------|------|------|------|------|------|
| Salary (RS) | 2430 | 2590 | 2870 | 3390 | 4720 | 5160 |
| Employees | 4 | 28 | 31 | 16 | 3 | 2 |

Find the mean salary of the employees.

4. Illustrate the definitions of statistics as propounded by the statistician. (10)
5. Find out the percentage and interpret the data: (10)

| No of families | No of children |
|----------------|----------------|
| 1 | 15 |
| 2 | 20 |
| 3 | 22 |
| 4 | 16 |

6. A random sample of 10 bags of fertilizer are found to have the following weight (kg): (10)
45, 49, 50, 49, 44, 52, 48, 45, 46, 45
Test at 5% level of significance whether the average packing weight can be taken as 50 kg.
7. Out of 100 people surveyed 600 belong to urban area and rest to rural areas. (10)
Among 500 who visited other states 400 belong to urban area. Test at 5% level of significance whether area and visiting other states are dependent.
8. State the relationship between Mean, Median and Mode. (10)

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[PART-A : Objective]

Choose the correct answer from the following :

1×20=20

1. The quantitative characteristic that varies from unit to unit is called:
 - a. Data
 - b. Hypothesis
 - c. Variable
 - d. Dispersion
2. Which of the following statistics is not a measure of central tendency?
 - a. Arithmetic Mean
 - b. Median
 - c. Mode
 - d. Standard Deviation
3. Which of the following presents the data in a minimum space?
 - a. Tabulation
 - b. Interpretation
 - c. Sampling
 - d. Correlation
4. Statistics deals with:
 - a. Qualitative Data
 - b. Quantitative Data
 - c. Both (a) and (b)
 - d. None of these
5. If the calculated value of t test is higher than tabulated value:
 - a. H_0 is rejected
 - b. H_0 is accepted
 - c. Both (a) and (b)
 - d. None of these
6. Which of the following test is used for comparing the mean of a sample to some hypothesized mean for the population?
 - a. Z test
 - b. T test
 - c. X^2 test
 - d. All of these
7. Degree of freedom is calculated as:
 - a. $n-1$
 - b. $N+1$
 - c. $(n-1)(n+1)$
 - d. None of these
8. Which of the following diagram tells us the direction in which the observed values are related?
 - a. Scatter Diagram
 - b. Pie Diagram
 - c. Bar Diagram
 - d. None of these
9. The value of Karl Pearson's Correlation Coefficient lies between:
 - a. -1 to +1
 - b. 0 to +1
 - c. -1 to 2
 - d. None of these
10. Method of Moving averages is related to:
 - a. Regression
 - b. Correlation
 - c. Time series
 - d. T test
11. When constructing a frequency distribution, classes should be arranged in such a way that they are of:
 - a. Equal width
 - b. Unequal width
 - c. Half width
 - d. Quarter width
12. If a set of data is perfectly symmetrical, the arithmetic mean must be identical to the:
 - a. Weighted Mean
 - b. Mode
 - c. Median
 - d. Quartile
13. In inferential statistics we study:
 - a. The methods to make decisions about population based on sample result.
 - b. How to make decision about mean, median and mode.
 - c. How a sample is obtained from a population.
 - d. None of the above.
14. Statistic is a numerical quantity calculated from:
 - a. Population
 - b. Sample
 - c. Data
 - d. Observation

15. Which one is not the measure of dispersion?

- a. Range
- b. Percentile
- c. Quartile Range
- d. Variance

16. Data in the population census report is:

- a. Primary Data
- b. Secondary Data
- c. Grouped Data
- d. Ungrouped Data

17. Which branch of statistics deals with the techniques that are used to organize, summarize and present the data is:

- a. Advanced Statistics
- b. Inferential Statistics
- c. Probability Statistics
- d. Descriptive Statistics

18. Which of these represent qualitative data?

- a. Height of a student
- b. Liking or disliking of 500 persons
- c. Income
- d. Yield of wheat

19. The data which has already been collected by someone else is called:

- a. Secondary Data
- b. Primary Data
- c. Array Data
- d. Raw Data

20. Questionnaire survey method is used to collect:

- a. Secondary Data
- b. Primary Data
- c. Both (a) and (b)
- d. None of these

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UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



[PART (A) : OBJECTIVE]

Duration : 20 Minutes

Serial no. of the
main Answer sheet

Course :

Semester : Roll No :

Enrollment No : Course code :

Course Title :

Session : 2017-18 Date :

Instructions / Guidelines

- The paper contains twenty (20) / ten (10) questions.
- Students shall tick (✓) the correct answer.
- No marks shall be given for overwrite / erasing.
- Students have to submit the Objective Part (Part-A) to the invigilator just after completion of the allotted time from the starting of examination.

| Full Marks | Marks Obtained |
|------------|----------------|
| 20 | |

.....
Scrutinizer's Signature

.....
Examiner's Signature

.....
Invigilator's Signature