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# B. Sc. DEGREE END SEMESTER EXAMINATION - OCTOBER 2021 <br> SEMESTER 1 : COMPLEMENTARY STATISTICS FOR B Sc PSYCHOLOGY COURSE : 19U1CPSTP1 : BASIC STATISTICS PAPER I <br> (For Regular - 2021 Admission and Supplementary/Improvement - 2020 Admission) 

Time : Three Hours

Max. Marks: 75
PART A
Answer All (1 mark each)

1. Who is known as the father of Statistics?
2. Literacy figures of different districts of Haryana according to religion and sex is $\qquad$ classification of data.
3. If the lower limit of one class is the number next to the upper limit of the preceding class, the classification is called $\qquad$ ..
4. Research journals are a source of $\qquad$
5. Which type of statistics is used by Psychologists to draw conclusions and make inferences based on the data from a research study?
6. Number of stars in the sky is an example of which type of population?
7. Any single item or element of the population is called the $\qquad$ of the population.
8. The average achievement of a group can be computed by which measure of central tendency?
9. If the items of a series are arranged in ascending or descending order of magnitude, the measure or value of the central item in the series is termed as $\qquad$
10. If the mean of a data is 73 and the median is 72 , find the mode.

PART B
Answer any 8 (2 marks each)
11. Define primary data.
12. Define Variables and Attributes
13. Differentiate between geographical and chronological classification of data.
14. Define statistics in singular and plural sense. Give examples.
15. What is enumeration? Elaborate on its types.
16. Explain the lottery method of sampling.
17. What is an arithmetic mean? How can it be computed in the case of ungrouped as well as grouped data?
18. What do you understand by the term mode of a data? Point out the methods of its computation in the case of grouped as well as ungrouped data.
19. Find the mean IQ for the eight students whose individual IQ scores are:
$\begin{array}{llllllll}80 & 100 & 105 & 90 & 112 & 115 & 110 & 120\end{array}$
20. Compute median for the following data
$\begin{array}{lllll}8 & 3 & 10 & 5 & 2\end{array}$
$11 \quad 14$
12
( $2 \times 8=16$ )
PART C
Answer any 5 (5 marks each)
21. Fifty students of a class obtained the following scores on an achievement test. Tabulate this data into a discrete frequency table. Calculate the range.

| 62 | 21 | 26 | 32 | 56 | 36 | 37 | 39 | 53 | 35 | 38 | 40 | 50 | 42 | 43 | 48 | 46 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54 | 42 | 44 | 61 | 68 | 28 | 33 | 56 | 57 | 38 | 52 | 37 | 41 | 45 | 46 | 49 | 48 |
| 52 | 39 | 40 | 54 | 42 | 43 | 63 | 30 | 34 | 51 | 44 | 58 | 41 | 45 | 47 | 45 |  |

22. Explain qualitative classification of data and its types with relevant examples.
23. What are line graphs? Discuss their utility in the presentation of statistical data.
24. List out the major advantages of sampling.
25. What is the Random Number Table method? Elaborate the steps taken to choose the sample using this method.
26. Compute the median for the following data

## Scores <br> f

0-10 3
10-20 7
20-30 6
30-40 9
40-50 5
50-60 6
60-70 2
70-80 2
27. Calculate the mean for the following frequency distribution using the Assumed mean method.

## Scores f

10-15 2
15-20 5
20-25 4
25-30 6
30-35 7
35-40 5
40-45 6
45-50 5
( $5 \times 5=25$ )
PART D
Answer any 2 (12 marks each)
28. Differentiate cumulative frequency distribution and cumulative percentage frequency distribution. Illustrate using the following data.

| 32 | 86 | 73 | 42 | 34 | 78 | 70 | 52 | 55 | 61 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 27 | 42 | 43 | 39 | 62 | 65 | 66 | 69 | 70 | 77 |
| 88 | 56 | 59 | 57 | 81 | 83 | 44 | 46 | 49 | 72 |
| 63 | 63 | 71 | 78 | 79 | 52 | 59 | 65 | 70 | 69 |

29. What are the various modes utilised for the graphical representation of grouped data? Discuss in brief.
30. Differentiate between Systematic sampling and Stratified sampling. Compare the merits and demerits of both sampling methods.
31. Find the mean, mode and median of the following frequency distribution.

| Marks | f |
| :---: | :---: |
| $0-10$ | 29 |
| $10-20$ | 57 |
| $20-30$ | 29 |
| $30-40$ | 34 |
| $40-50$ | 16 |
| $50-60$ | 28 |
| $60-70$ | 41 |
| $70-80$ | 35 |

