

(Pages : 6)

N – 4088

Reg. No. :

Name :

First Semester B.Sc. Degree Examination, June 2022

First Degree Programme under CBCSS

Statistics

Complementary Course for Psychology

ST 1131.5 : STATISTICAL METHODS FOR PSYCHOLOGY I

(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – I

Answer **all** questions. **Each** question carries **1** mark.

1. Statistics is a branch of _____
 - (a) Pure Mathematics
 - (b) Applied Mathematics
 - (c) Psychology
 - (d) None of them
2. Psychologists use Statistics for analyzing the _____ they make.
 - (a) observations
 - (b) results
 - (c) research
 - (d) techniques

P.T.O.

3. A _____ is a previously collected data used for a similar study.
- (a) Primary data
 - (b) Qualitative data
 - (c) Secondary data
 - (d) Discrete data
4. A _____ is a tool for collecting the primary data for a study.
- (a) Questionnaire
 - (b) Schedule
 - (c) Census Report
 - (d) Both (a) and (b)
5. _____ is a partial enumeration method.
- (a) Sampling method
 - (b) Census method
 - (c) Research publication
 - (d) None of these
6. The set of whole units under any study is called a _____
7. Tabulation is called _____ of large data.
8. In histogram the length of the rectangles are proportional to _____
9. _____ a map through which statistical information are represented in a different manner.
10. The mid-values of the classes are called _____

(10 × 1 = 10 Marks)

SECTION – II

Answer any **eight** questions. **Each** question carries **2** marks.

11. What are the areas of application of Statistics?
12. Mention some limitations of Statistics.
13. Briefly explain the important types of classification of data.
14. Apply the theory of indices to $a^m a^n$ and $(a^m)^{-n}$ where m and n are positive integers.
15. Distinguish between primary data and secondary data.
16. What are the different sources of secondary data?
17. Distinguish between a questionnaire and a schedule.
18. Why Statistics is useful for Psychologists?
19. Discuss the systematic sampling method.
20. What is called stratification in sampling?
21. Define cluster sampling.
22. What is the aim of classification of data?
23. Define a
 - (a) class boundary and
 - (b) class interval.
24. What is a grouped frequency distribution?
25. What are the advantages of diagrammatic representations of data?
26. Distinguish between a frequency curve and a frequency polygon.

(8 × 2 = 16 Marks)

SECTION – III

Answer any **six** questions. **Each** question carries **4** marks.

27. Solve the linear equations $3x + 2y = 8$; $5y - x = 3$.

28. Applying the laws of indices evaluate: $\left(\frac{a^3}{b^{-2}}\right) \times \left(\frac{a^{-2}}{b^3}\right) + \left(\frac{a}{b}\right)^6 \div \left(\frac{a}{b}\right)^5$.

29. Distinguish between stratified sampling and cluster sampling.

30. Explain multistage sampling method with an example.

31. Name the scales of measurements used in Statistics. Explain with one example each.

32. What are the important parts of a frequency table?

33. Discuss the procedure to draw a Histogram.

34. Write on the various types of bar diagrams to present data.

35. Draw a Simple Bar diagram for the following data giving the types of houses in which the employees in a firm reside.

Type of Housing	Huts	Eco-friendly Homes	Flats	Bungalows
No. of people	15	30	25	5

36. Represent the following data using an appropriate diagram.

Years	2005	2010	2015	2020
Exports (Lacks of Rupees)	20	20	25	35
Imports (Lacks of Rupees)	10	20	30	40

37. Construct a frequency polygon for the following data

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	5	15	20	6	4

38. Explain the procedure of constructing a cumulative percentage frequency distribution.

(6 × 4 = 24 Marks)

SECTION – IV

Answer any **two** questions. Each question carries **15** marks.

39. Explain the important methods of collecting primary data, their merits and demerits. What are the sources of getting primary data?

40. The daily wages of 30 workers in a factory are given below. Prepare a grouped frequency table of appropriate class interval. Also obtain the percentage frequency in each class.

310,320,325,354,370,335,300,397,331,375,315,390,350,386,359,360,380,323,
342,327,305,318,337,367,392,340,363,385,367,393.

41. Discuss the advantages of sampling over census. Briefly explain the important random sampling methods.

42. Represent the following data giving the expenditure in thousands of rupees of two families by a subdivided pie diagram and compare the figures.

Items	Food & Clothing	House Rent	Education	Fuel and light	Miscellaneous
Family I	9	6	5	3	2
Family II	14	9	5	5	3

43. Draw a histogram and a frequency curve from the data given below.

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	2	4	9	7	3

44. Draw the Ogives (Cumulative frequency curves) and hence find the median of the data:

Values	5	15	25	35	45
Frequency	10	20	35	25	10

(2 × 15 = 30 Marks)