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N – 3951

Reg. No. : .....

Name : .....

**First Semester B.A. Degree Examination, June 2022**

**First Degree Programme under CBCSS**

**Statistics**

**Complementary Course for Economics**

**ST 1131.4 : STATISTICS – I**

**(2020 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

**SECTION – A**

Answer all questions. Each question carries 1 mark.

1. Any representative part of the population is called \_\_\_\_\_.
2. What is the full form of NSSO?
3. Classification of data with respect to an attribute is known as \_\_\_\_\_.
4. The sampling method in which all units in the population have an equal probability of being included in the sample is called \_\_\_\_\_.
5. Statistics which deals with the problem of making inferences about population from sample is known as \_\_\_\_\_.
6. Name the agency for estimating the national income of India.

P.T.O.

7. Which is the suitable method for collecting primary data in cases where the informants are illiterate and for getting a high rate of response from informants?
8. The largest value is 92 and smallest value 12 and the number of classes desired is 10, then what is the width of the classes for forming a frequency distribution?
9. Give an example of a two dimensional diagram.
10. For a histogram based on a frequency distribution with unequal class intervals, the frequency of a class is proportional to \_\_\_\_\_.

(10 × 1 = 10 Marks)

#### SECTION – B

Answer any eight questions. Each question carries 2 marks.

11. Distinguish between primary and secondary data.
12. Define
  - (a) sampling unit and
  - (b) sampling frame.
13. Write down any two limitations of Statistics.
14. Distinguish between classification and tabulation.
15. Give any two advantages of stratified random sampling method.
16. Explain lottery method.
17. Point out the objectives of classifying data.

18. Define cumulative frequency distribution.

19. Convert the following into more than frequency distribution:

Marks	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
No. of students	12	18	20	26	35	24	11	4

20. Define frequency polygon. How is frequency polygon different from a frequency curve?

21. Explain bar diagram.

22. State any two limitations of diagrams and graphs for representing data.

23. What are the main functions of CSO?

24. What is the objective of NSSO?

25. Give any two advantages of census.

26. What do you understand by distrust of statistics?

(8 × 2 = 16 Marks)

### SECTION – C

Answer any six questions. Each question carries 4 marks.

27. State the factors which should be kept in mind while using secondary data for the investigation.

28. Point out the advantages of sampling method.

29. State the essential points to be remembered in drafting a questionnaire.

30. Explain briefly the application of Statistics in Economics

31. Describe inclusive and exclusive types of classes with examples.
32. Distinguish between subdivided and multiple bar diagrams
33. Draw less than ogive for the following frequency distribution:

Class	0-20	20-40	40-60	60-80	80-100
Frequency	18	22	32	24	14

34. Explain stratified random sampling.
35. What are the different parts of a table?
36. Write short notes on cartograms.
37. Explain the role of CSO in Indian statistical system.
38. Following table gives the birth rate per thousand of different countries over a certain period:

Country	India	Germany	U.K	China	New Zealand	Sweden
Birth rate	33	16	20	40	30	15

Represent the above data by a suitable diagram.

(6 × 4 = 24 Marks)

### SECTION – D

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

39. (a) Define Statistics. State the important functions of Statistics.
- (b) Explain briefly the importance and scope of statistics.
- (c) Explain briefly the four divisions of NSSO.

(6+4+5=15)

40. (a) Explain the advantages of representing statistical data by diagrams and graphs.

(b) The following table shows the areas in millions of square kilometer of oceans of the world:

OCEAN	AREA
Pacific	70.8
Atlantic	41.2
Indian	28.5
Antarctic	7.6
Arctic	4.8

Draw a Pie diagram to represent the data.

(6+9=15)

41. (a) Distinguish between judgment sampling and probability sampling.

(b) Write short notes on :

(i) systematic sampling and

(ii) cluster sampling.

(c) Distinguish between sampling and non sampling errors. How these errors can be controlled in surveys? (4+6+5=15)

42. (a) Explain any four methods of collecting primary data and bringing out their merits and demerits.

(b) State the chief sources of secondary data. Comment briefly on the choice between primary and secondary data for the investigation. (11+4=15)

43. (a) Explain the different ways in which a frequency polygon can be constructed. State any two advantages of frequency polygon over histogram.

- (b) Represent the following data by means of a histogram:

Class	10-15	15-20	20-25	25-30	30-40	40-60	60-~80
Frequency	7	19	27	15	12	12	8

- (c) What are the utilities of ogives?

(6+6+3=15)

44. (a) Explain different methods of classification giving suitable examples.

- (b) What are grouped and ungrouped frequency distributions? Describe the basic principles for forming a grouped frequency distribution. (8+7=15)

(2 × 15 = 30 Marks)