



**JAQ-003-001112**

Seat No. \_\_\_\_\_

**B. Sc. (Sem. I) (CBCS) Examination**

**November - 2019**

**101 : Statistics**

*(Old Course)*

**Faculty Code : 003**

**Subject Code : 001112**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

- Instructions :** (1) Question. 1 carries 20 marks.  
(2) Question. 2 & 3 carry 25 marks each.  
(3) Student can use their own scientific calculator.  
(4) Graph paper will be provided on request.

**1** Give answers to following questions : (Each 1 mark) **20**

- (1) Statistics deal with \_\_\_\_\_ information.
- (2) Statistical data are collected for \_\_\_\_\_.
- (3) In an exclusive type distribution, the limits excluded are \_\_\_\_\_
- (4) A series showing the sets of all values in classes with their corresponding frequencies is known as \_\_\_\_\_.
- (5) For the mid-values given: 25, 34, 43, 53, 61 and 70. The first class of the distribution is \_\_\_\_\_
- (6) In a histogram with equal class intervals, heights of bar are proportional to \_\_\_\_\_
- (7) Ogives for more than type and less than type distribution intersect at \_\_\_\_\_
- (8) State Sterg's rule is \_\_\_\_\_
- (9) When collected data are grouped with reference to time, is known as \_\_\_\_\_
- (10) The presentation of classified data in tabular form is \_\_\_\_\_

- (11) The \_\_\_\_\_ is the reference point for calculating the 'less than' cumulative frequency.
- (12) In an inclusive series both the limits are \_\_\_\_\_
- (13) Stub stands for \_\_\_\_\_
- (14) A simple table contains data on two characteristics \_\_\_\_\_
- (15) The minimum observation of the data is 1.41 and maximum observation is 1.63. If these data are classified into 8 classes \_\_\_\_\_ will be approximate class length.
- (16) Pie diagram is \_\_\_\_\_ dimensional diagram.
- (17) Last column of the sheet in Microsoft Office Excel 2007 is \_\_\_\_\_
- (18) By default file name of Microsoft Office Excel 2007 is \_\_\_\_\_
- (19) In Microsoft Excel, the symbol we use to make absolute reference is \_\_\_\_\_
- (20) When you enter a number general alignment is \_\_\_\_\_

2 (A) Write answers of any **three** : (Each 2 marks) **6**

- (1) Define meaning of statistics in plural sense.
- (2) Define sample and give one illustration.
- (3) Explain population inquiry with example.
- (4) Explain exclusive classes with illustration.
- (5) Define frequency distribution. State its type.
- (6) Define tabulation.

(B) Write answers of any **three** : (Each 3 marks) **9**

- (1) Explain discrete frequency distribution with example.
- (2) Write the advantage of classification.

- (3) Describe the method of frequency polygon with equal class length.
- (4) Write short note: Bar diagram.
- (5) The distribution of wages of workers of a factory is given below. Draw a frequency polygon and frequency curve from the data

<i>Wages(Rs)</i>	15 – 20	20 – 25	25 – 30	30 – 35	35 – 40	40 – 45	45 – 50	50 – 55	55 – 60
<i>No of workers</i>	3	9	14	20	35	9	6	2	2

- (6) In test of Mathematics and Statistics each of 10 marks, obtained by 50 students are given by the following bivariate data. Prepare a bivariate frequency distribution from the data :

(55,58)	(32,35)	(59,65)	(27,30)	(40,40)	(20,22)	(38,35)	(44,46)	(61,63)	(30,38)
(24,30)	(41,45)	(47,40)	(38,42)	(50,53)	(20,24)	(35,39)	(20,25)	(42,50)	(52,55)
(21,26)	(39,43)	(49,32)	(30,32)	(40,38)	(54,61)	(29,32)	(42,47)	(23,27)	(31,33)

(C) Write answers of any **two** : (Each 5 marks) **10**

- (1) Write the difference between primary and secondary data.
- (2) State the names of the methods of collecting primary data and explain any one.
- (3) State the source of secondary data.
- (4) Explain CPU of computer.
- (5) Explain Bus network topology.

**3** (A) Write answers of any **three** : (Each 2 marks) **6**

- (1) Define meaning of statistics in singular sense.
- (2) Define population and give one illustration.
- (3) Explain sample inquiry with example.
- (4) Explain inclusive classes with illustration.
- (5) Define classification with illustration.
- (6) What is data? State its types.

(B) Write answers of any **three** : (Each 3 marks) **9**

- (1) Write limitation of statistics.
- (2) Explain cumulative frequency term with example.
- (3) Write the advantage of sample inquiry.
- (4) Write short note: Histogram diagram.
- (5) Changes in price of shares during a day of 40 different companies registered at Bombay stock exchange are as follows. Find an inclusive continuous frequency distribution having mid value -1 for one of the classes and regular class length as 5.

-8, 8, 7, 16, 8, 22, 6, 10, -7, 5, 3, -4, 9, -11, 11, 16, 9, -3, -11, 2, 5, -6, 10, -6, 13, -5, 3, -7, 12, 0, 7, 6, 12, -5, 21, 0, 4, -10, 14, -2

- (6) In a ledger of a company, the liabilities in the final balance sheet are as under. Present the data by suitable diagram.

Particular	Share capital	Deposits	Loan	Current liabilities	Total
Liabilities (Rs.)	6,00,000	4,00,000	2,00,000	2,40,000	14,40,000

(C) Write answers of any **two** : (Each 5 marks) **10**

- (1) Write difference between population inquiry and sample inquiry.
- (2) Write the difference between data obtained by the method of questionnaire, by post and by enumerators
- (3) Write the characteristics of an ideal questionnaire.
- (4) Explain different types of classifications.
- (5) Explain Star network topology.