

This question paper contains 3 printed pages]

SF—50—2022

FACULTY OF COMPUTER SCIENCE

B.Sc. (First Year) (First Semester) EXAMINATION

MAY/JUNE, 2022

(CBCS Pattern)

COMPUTER SCIENCE

(Statistical Techniques in Computer Science)

(Wednesday, 6-7-2022)

Time : 9.30 a.m. to 1.15 p.m.

Time— 3.45 Hours

Maximum Marks—75

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Assume suitable data, if necessary.

(iv) Non-programmable calculator is allowed.

1. Attempt any *five* of the following : 15

- (a) Define Statistics. Write its importance.
- (b) Explain types of data.
- (c) Define mean. Write its merits and demerits.
- (d) Explain standard deviation and variance.
- (e) Explain probability.
- (f) Write scope of statistics in Computer Science.
- (g) Explain frequency distribution.

2. Attempt any *two* of the following : 10

- (a) Write importance and limitations of statistics.
- (b) Explain scope of statistics in economics.
- (c) Describe Statistics.

P.T.O.

3. Attempt any *two* of the following : 10

- Describe primary and secondary data with example.
- Explain pie diagram.
- Explain simple and subdivided bar diagram.

4. Attempt any *two* of the following : 10

- Explain measures of central tendency.
- Calculate median from the following data :

x_i	f_i
9	4
20	6
25	16
40	8
50	7
80	2

- Define mode. Write its merits and demerits.

5. Attempt any *two* of the following : 10

- Explain measures of dispersion.
- Calculate variance from the following data :

61, 68, 69, 70, 63, 60, 78

- Calculate coefficient of variation from the following data :

Class	Frequency
0-20	5
20-40	12
40-60	32
60-80	40
80-100	11

6. Attempt any *two* of the following :

10

(a) Explain sample space with example.

(b) Prove that :

(i) $P(A') = 1 - P(A)$

(ii) $P(A \cup B) = P(A) + P(B)$

(c) Describe events.

7. Attempt any *two* of the following :

10

(a) Explain correlation.

(b) Describe regression.

(c) Find coefficient of correlation from the following data :

X	Y
10	5
12	6
13	7
17	9
18	13