18. Calculate A.M, Median and Mode from the following data

X	F
0-9	148
10-19	368
20-29	499
30-39	648
40-49	386
50-59	211
60-69	172
70-79	89
80-89	66

19. Find the coefficient of variation for the following data

C-I	F
0-10	7
10-20	12
20-30	24
30-40	10
40-50	7

20. Calculate Karl Pearson's coefficient of skewness.

Wages :	50	70	100	150	200
No. of workers :	2	4	10	3	1

(For candidates admitted from 2016–2021 Batch)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Part III — Allied

BIO-STATISTICS

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

1. What is biological data?
2. What is statistical methods?
3. Define tabulation.
4. What is sampling?
5. Define median.
6. What are the merits of arithmetic mean?
7. Name the different measures of dispersion.
8. Define mean deviation.

9. What do you understand by Kurtosis?

10. What is meant by skewness?

PART B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the kinds of biological data.

Or

(b) What are the limitations of statistics?

12. (a) Draw a suitable diagram to represent the following data:

Items	Family A	Family B
Food	2,400	3,000
Clothing	1,600	3,000
Rent	800	2,000
Other expenses	2,000	4,000

Or

(b) What are the main purposes of tabulation?

13. (a) Calculate geometric mean for the following data :

35 386 153 125 118 1246

Or

(b) Calculate Harmonic mean :

Size	6	7	8	9	10	11
Frequency	4	6	9	5	2	8

14. (a) What are the demerits of standard deviation?

Or

(b) Calculate mean deviation for the following data :

X : 32 51 23 46 20 78 57 56 57 30

15. (a) What are the uses and importance of moments?

Or

(b) What is the purpose of measures of dispersion?

PART C — (3 × 10 = 30)

Answer any THREE questions.

16. Define bio statistics and discuss its functions and limitations.

17. Write a short note on collection of data,