26. Explain about any two measures of dispersion.

27. Find regression lines :

X :	3	5	9	8	9	11
Y :	2	3	4	6	5	10

SECTION C — (5 × 10 = 50 marks)

Answer any FIVE questions.

28. Explain elaborately about Biostatistics.

29. Explain about graphical representation of data.

30. Explain the types of classification.

31. What is time series? Explain the types of variations.

32. Calculate mode, standard deviation and variance of the following data :

No. of lizards :	1	2	3	4	5	6	7	8
Eggs :	35	33	34	44	39	49	45	46

33. Elaborately explain about correlation.

34. Explain about regression with an example.

**7834/BS1** **OCTOBER 2008**

Paper I — BASIC BIOSTATISTICS

Time : Three hours Maximum : 100 marks

SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

1. Differentiate Statistics and Biostatistics.

2. Data originally collected for an investigation are known as ——————— data.

3. List the two types of quantitative observation.

4. List out any one characteristics of frequency distribution.

5. Graphs and diagrams are widely used in the presentation of ——————— data.

6. What do you mean by histogram?

7. In what ways the data can be presented?
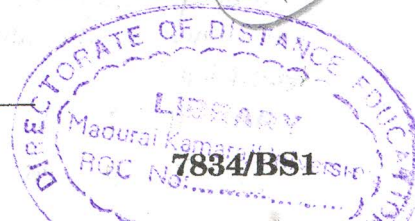
8. _____ diagrams commonly used to provide a visual comparison of figures in a time series.

9. What do you mean by line graph?

10. List out any two measures of central tendency.

11. Specify arithmetic mean formula.

12. What is median?

13. Mode =

    (a) 3 Median – 2 Mean (b) 2 Median – 3 Mean

    (c) 2 Mean – 3 Median (d) 3 Median – 3 Mean.

14. What do you mean by Harmonic mean?

15. _____ are the values which divide the series into a number of equal parts.

16. What do you mean by deciles?

17. State the formula of range.

18. The square of standard deviation is called _____.

19. What is co-efficient of variation?

20. What is correlation?

SECTION B — (5 × 6 = 30 marks)

Answer any FIVE questions.

21. Briefly state about the role of statistics in clinical medicine.

22. Explain about bar diagram with an example.

23. Explain about qualitative and quantitative observation.

24. Calculate Mean and Median for the following data :

Protein intake (g) :	15-25	25-35	35-45
No. of families :	30	40	100
Protein intake (g) :	45-55	55-65	65-75
No. of families :	110	80	30

25. Eight coins were tossed together and the number of heads resulting was noted. The operation was repeated 256 times and the frequencies (f) that we were obtained for different values of X, the number of heads are shown in the following table. Calculate Median, Quartiles.

X :	0	1	2	3	4	5	6	7	8
f :	1	9	26	59	72	52	29	7	1

31. Give detailed account of normal distribution.

32. Elaborately discuss about non-probability sampling techniques.

33. Explain about properties of normal distribution.

34. Explain the determination of sample size.

———————

Paper II — PROBABILITY, PROBABILITY
DISTRIBUTIONS AND SAMPLING

———————

Time : Three hours   Maximum : 100 marks

SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

1. ——————— is the one which does not contain any element at all.

2. Group of sets will be termed as _____

3. What do you mean by event?

4. List out the two important laws of probability.

5. Specify the multiplicative law.

6. What is meant by theoretical distribution?

7. What is binomial probability distribution?

8. State any example for poison distribution

9. What is probability density function?

10. List any one application of normal distribution