

NOVEMBER 2014**56612/MCMB**

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer any TEN questions.

Each answer should not exceed 50 words.

Define/Explain the following:

1. Sample
2. Rate
3. Chronological classification
4. Piegram
5. Histogram
6. Harmonic mean
7. Range
8. Standard error
9. Null hypothesis
10. Linear correlation
11. Regression
12. Mortality rate.

PART B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

Each answer should not exceed 200 words.

13. Illustrate qualitative and quantitative variables.
14. Illustrate and explain chronological classification of data.
15. Explain the different types of bar diagram with suitable example.
16. Calculate median from the given data.

Marks:	0-10	10-20	20-30	30-40	40-50
Frequency:	22	38	46	34	20
17. Explain addition rule probability.
18. Explain the use of scatter diagram and correlation graph in the study of the relationship between two variables.
19. Explain the construction of regression lines with suitable examples.

PART C — ($4 \times 10 = 40$ marks)

Answer any FOUR questions.

Each answer should not exceed 500 words.

20. Explain any five diagrammatic and graphical presentation of data.

21. Calculate the standard deviation for the given data.

X	6	7	8	9	10	11	12
F	3	6	9	13	8	5	4

22. Calculate the Karl Pearson's coefficient correlation for given data.

X	38	34	35	20	40	43	56
F	33	30	32	20	31	32	53

23. Calculate the regression equations from the following data.

X	5	7	3	1	9	12	8	3
F	8	9	5	4	9	13	7	9

24. A black rat (heterozygous) is crossed with another heterozygous black rat 43 black, 15 cream and 22 albino offspring are produced in the F_2 generation. Using Chi-square test the genetic hypothesis 9:3:4 is consistent with the data.

25. Briefly explain Natality and Mortality. Describe their types and calculations.
