

**APRIL 2016****56612/MCMB**

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer any TEN questions each in 50 words.

Define /Explain the following.

1. Population
2. Rounding off to two digits 133.7137
3. Qualitative variable
4. Cartogram
5. Geometric mean
6. Median
7. Positive correlation
8. Chi square
9. Correlation graph
10. Distinguish between correlation and regression
11. Karl–Pearson's coefficient of correlation
12. Mortality rate.

## PART B — (5 × 5 = 25 marks)

Answer any FIVE questions each in 200 words.

13. Illustrate and explain derived variable with examples.
14. Explain the accuracy and precision of data.
15. Explain the geographical classification of data.
16. Explain histogram and frequency polygon with suitable examples.
17. Calculate median for the given data  
Income Rs    100 150 80 200 250 180 Total  
No.of persons 24  26  16 20  6    30  122
18. Explain multiplication rule of probability.
19. Give an account on different types of correlation.

## PART C — (4 × 10 = 40 marks)

Answer any FOUR questions each in 500 words.

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

21. Calculate arithmetic mean for the following data by direct method and assumed mean method.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Numbers of students	40	25	50	35	30	20

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

x	5	9	13	17	21
y	12	20	25	33	35

23. Calculate the regression equations from the following data.

x	1	2	3	4	5
y	2	3	5	6	4

24. A cross involving different genes gave rise to  $F_2$  generation of tall and dwarf in the ratio of 110:90. Test by means of chi square whether this value is deviated from the Mendel's monohybrid ratio 3:1.

25. Briefly explain the population estimation and population growth.