

MAY 2016

P/ID 40308/PZLF

Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions each in 50 words.

Define / Explain.

1. Population.
2. Accuracy.
3. Quantitative classification.
4. Multiple bar diagram.
5. Harmonic mean.
6. Distinguish mean deviation and standard deviation.
7. Probability.
8. Negative correlation.
9. Natality Rate.
10. Expand BASIC.

PART B — (5 × 6 = 30 marks)

Answer ALL questions each in 250 words.

11. (a) Explain derived variables with examples.

Or

- (b) Explain the rounding of data.

12. (a) Describe the qualitative classification of data.

Or

- (b) Illustrate and explain any three diagrammatic presentation of data.

13. (a) Define Arithmetic mean and list out the characteristic features of Arithmetic mean.

Or

- (b) Calculate the Standard deviation for the following data :

X : 6 7 8 9 10 11 12

F : 3 6 9 13 8 5 4

14. (a) Explain the addition rule of probability.

Or

- (b) Explain the hypothesis testing.

15. (a) Explain scatter diagram and its uses.

Or

- (b) Explain the construction of regression lines and its applications.

PART C — (5 × 10 = 50 marks)

Answer ALL questions each in 500 words.

16. (a) Briefly explain the graphical presentation of data with examples.

Or

- (b) Calculate mean, median and mode for the given data.

X : 10-20 20-30 30-40 40-50 50-60 60-70

F : 3 5 10 15 5 12

17. (a) A coin is tossed 100 times of which head comes 60 times and tail 40 times. Would you accept the hypothesis that the coin is normal having no bias for either head or tail?

Or

- (b) When two heterozygous pea plants are crossed 1600 plants are produced in the F_2 generation out of which 940 are yellow round, 260 are yellow wrinkled, 340 are green round and 560 are green wrinkled by means of chi square test whether these values are deviated from Mendel's dihybrid ratio 9:3:3:1 (or by means of chi square test whether there is real independent assortment).

3 **P/ID 40308/PZLF**

18. (a) Calculate the Karl Pearson's coefficient of correlation from the given data :

X : 12 18 16 15 12 10 20 17

F : 6 10 9 8 9 8 12 10

Or

- (b) Find the two regression equation from the given data of yield of tomato and potato :

Tomato (X): 60 20 10 40 80

Potato (Y): 90 60 50 80 120

19. (a) Give an account on population estimation and population growth in population statistics.

Or

- (b) Define Natality and Mortality. Describe their calculations.

20. (a) Briefly explain web-world and its uses.

Or

- (b) Explain the uses of computer for statistical analysis with examples.