

D. K. M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1
SEMESTER EXAMINATIONS
NOVEMBER - 2017

15CBC5D

ELECTIVE I : BIOSTATISTICS

Time : 3 Hours

Max. Marks : 75

SECTION – A (10 x 2 = 20)

Answer ALL the questions.

1. Define statistics.
2. Define Bar diagram.
3. Calculate A.M. for the following data 3, 7, 6, 5, 7, 8, 10.
4. Write the formula for G.M. and H.M. for discrete series.
5. Define Sampling.
6. Define Null hypothesis.
7. Define Probability.
8. Define Correlation.
9. What is t - test?
10. Write the equation for regression line of x.

SECTION – B (5 x 5 = 25)

Answer any FIVE of the following questions.

11. Draw a simple bar diagram for the following data

Country	India	Assam	USA	Italy	Egypt	Japan
Yield of rice	700	900	1400	2000	2500	2800

12. Write down the merits and demerits of A.M, G.M and H.M.

13. Calculate the A.M. for the following data

Age in years	8	10	12	15	18
No. of workers	5	7	12	6	10

14. A random sample of 200 tins of coconut oil gave an average weight of 4.95 kgs with a standard deviation of 0.21kg .Do we accept the hypothesis of net weight 5kgs per tin at 1% level? (table value at 1% is 2.58)
15. Write down the uses of t - test.
16. A sample of ten house owners is drawn and the following values of their incomes are obtained. Mean is Rs.6000 standard deviation Rs.650.Test the hypothesis that the average income of house owners of the town is Rs.5500. (table value at 5% level=2.262).

17. Calculate the co-efficient of correlation between x and y for the following data

X	10	12	13	16	17	20	25
Y	19	22	26	27	29	33	37

18. Find the line of regression of y on x,

X	1	2	3	4	5	8	10
Y	9	8	10	12	14	16	15

SECTION – C (3 x 10 = 30)

Answer ALL the questions.

19. (a) Explain the Nature and scope of statistical method.

(Or)

(b) Find the mode of the following data.

46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	91-100
2	3	5	7	9	11	7	2	3	1

20. (a) Calculate the standard deviation.

Size	10	11	12	13	14	15	16	17
Frequency	2	7	10	15	10	4	1	1

(Or)

(b) Define law of statistical regularity and law of inertia of large numbers.

21. (a) In 120 throws of a single die the following distribution of faces was observed.

Face	1	2	3	4	5	6
Frequency	30	25	18	10	22	15

Can you say that the die is biased?

(Or)

(b) The following are the ranks obtained by 10 students in statistics and chemistry,

Statistics	1	2	3	4	5	6	7	8	9	10
Chemistry	1	4	2	5	3	9	7	10	6	8

To what extent is the knowledge of students in the two subjects related?

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