Exam. Code   :   107402
Subject Code   :   2274

B.Sc. (Bio Technology) 2nd Semester
BIOSTATISTICS
Paper – BT-5

Time Allowed—3 Hours]   [Maximum Marks—40

Attempt as per directions.

SECTION–A

Note :– All questions are compulsory. $1 \times 8 = 8$

1.   Define and explain the following :

    (i)   Mean

    (ii)   Mode

    (iii)   Probability

    (iv)   Samples

    (v)   Correlation

    (vi)   Regression

    (vii)   Null hypothesis

    (viii)   Attributes.

SECTION–B

Note :– Attempt any **five** questions. $5 \times 4 = 20$

2.   Find out the standard deviation of a sample 16, 13, 17 and 22.

3115(2518)/CTT-437   1   (Contd.)

3. What is covariance ? How will you determine it ?

4. What is conditional probability ? How will you determine it ?

5. What is Bayes theorem ? Explain.

6. What is linear correlation ? Explain.

7. What is linear regression ? Explain.

8. What is goodness of fit ? Explain.

9. What is association of attributes ? Explain.

SECTION–C

Note :– Attempt any **two** questions. $6 \times 2 = 12$

10. Find the standard deviation of incubation period of small pox in 50 patients of the following data :

Period	10	11	12	13	14	15	16
No. of Patients	2	7	11	15	10	4	1

11. What is the probability of getting at most 8 heads in 10 coins tossed together ?

12. Calculate the correlation coefficient between x and y from the following data :

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

3115(2518)/CTT-437 2 (Contd.)

13. From the table given below whether the color of son's eyes are associated with that of father's eyes ?

Eyes colour of sons

		Not Light	Light
Eyes colour of fathers	Not Light	230	148
	Light	151	471

$(\psi^2_{0.05}$, d.f. $1 = 3.84)$