 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

**M.Sc.** DEGREE EXAMINATION - **ZOOLOGY**

SECOND SEMESTER – **APRIL 2012**

# ZO 2956 - BIOSTATISTICS

Date : 24-04-2012 Dept. No. Max. : 100 Marks

Time : 9:00 - 12:00

**PART - A 10 x 2 = 20 Marks**

**I Answer ALL the questions:**

1. What is the significance of student t test?

2. How do you find range?

3. Explain binomial equation.

4. Comment on sampling techniques.

5. What is Hardy Weinburg’s law?

6. Differentiate primary from secondary data.

7. What is standard error?

8. Differentiate histogram from bar diagram.

9. What is correlation?

10. Explain degree of freedom?

**PART – B 4 x 10 = 40 Marks**

**II Answer any FOUR of the following:**

11. What are the different kinds of regression?

12. What are the components of a table?

13. Draw a pie diagram for the following data and write its significance.

|  |  |
| --- | --- |
| Earthworm | 12 |
| Cockroach | 11 |
| Millipede | 9 |
| Centipede | 17 |
| Bugs | 16 |

14 What is skewness and kurtosis?

15 What are the different types of co-efficient of correlation?

16 Calculate the chi square for the following table and find if there is any significance between RBC and Hb.

|  |  |  |
| --- | --- | --- |
| RBC Count | Hb Below Normal | Hb Above Normal |
| Below Normal | 64 | 120 |
| Above Normal | 141 | 173 |

**PART – C 2 x 20 = 40 Marks**

**III Answer any TWO of the following:**

17. Write a note on SPSS applications in bio-statistics.

18. What is the significance of graphs and diagrams?

19. By ANOVA find if there is an increase in maize production in different sub species in different plots. Tv=3.49

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |
| 6 | 7 | 9 | 7 |
| 8 | 9 | 11 | 6 |
| 7 | 5 | 8 | 4 |
| 3 | 7 | 4 | 3 |

20. The following table shows the age x and BP of six individuals. Find regression equation of X on Y and estimate BP of a person of 61, 68 and 75 years respectively.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age (x) | 29 | 41 | 63 | 69 | 80 | 78 |
| BP (Y) | 131 | 139 | 140 | 153 | 171 | 133 |

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