CODE NO.3340

2011-12
M.Sc. (III SEMESTER) EXAMINATION
(WILDLIFE SCIENCE)
BIO-STATISTICS
(WLM-9013)

Maximum Marks: 70 **Duration: Two Hours**

Answer all questions.
Internal choice has been indicated.
Marks are indicated against each question.

1. Write short notes on the following:

a) Types of variables 05
b) Scales of measurements 05
c) Accuracy & Precision 07

OR

a) Data summarization technique 07
b) Histogram, Bar diagram and Pie chart 05
c) Sampling universe, sampling unit and sample size 05

2. Describe salient features of a normal curve. Discuss the properties of parametric and non-parametric statistical tests. 17

OR

Write notes on:

a) Hypothesis testing 05
b) One tailed and two tailed test 05
c) Data transformation 07

3. A Wildlife Biologist collected following data on song duration from four different areas in three time period: 18

Time Period	Song duration (Seconds)			
	Area A	Area B	Area C	Area D
Sunrise	6.7	8.6	10.2	6.5
Noon	3.4	4.3	6.5	2.5
Sunset	6.3	8.3	9.9	7.1

Test the null hypothesis, that there is no difference in song duration between areas in different time period using "Friedman Two-Way Analysis of Variance". The tabular X^2 Value at .05 significance level is 5.99.

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4. A Wildlife biologist collected following data on birds: **18**

Bill length (mm)	Weight (g)
33.5	51
38.0	59
32.0	49
37.5	54
31.5	50
33.0	55
31.0	48
36.5	53
34.0	52
35.0	57

Test the null hypothesis, that there is no correlation in bill length and weight of bird using "Product Moment Correlation coefficient". Test the significance of correlation coefficient by converting V Value to t value. The tabular t value at 0.01 significance level is 3.355.

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