

ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Agricultural Sciences)

WARNING

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

Course: Statistics (794)
Level: M.Sc. Forestry Extension

Semester: Autumn, 2013
Total Marks: 100
Pass Marks: 40

ASSIGNMENT No. 1
(Units: 1–5)

Note: All questions are compulsory and carry equal marks.

- Q. 1 Define the term statistics. How would you explain the graphical presentation of data through histogram, cumulative frequency polygon and types of frequency distribution? (20)
- Q. 2 a) Differentiate between the following:
- i) The Arithmetic Mean and Median (05)
 - ii) Type I and Type II error (05)
 - iii) Range and Variance (05)
 - iv) Standard Deviation and Co-efficient of Variation (05)
- b) Write basic characteristics of normal distribution along with graphical presentation. (10)
- Q. 3 Discuss the procedure of determining binomial distribution with your own words? (20)
- Q. 4 a) Discuss briefly the properties of t-distribution. (10)
- b) The heights of college students are known to be normally distributed with $\sigma = 1.50$ inches. A random sample of 400 students showed a mean height of 70.00 inches. By using $\alpha = 0.05$ test the hypothesis $H_0 : \mu = 65.00$ against the alternative hypothesis: $H_1 : \mu = 65.00$ (10)
- Q. 5 Discuss briefly about hypothesis and test of goodness of fit with your own words. Explain this concept with the help of any example. (10)

ASSIGNMENT No. 2

(Units: 6–9)

Total Marks: 100

Pass Marks: 40

Note: All questions are compulsory and carry equal marks.

- Q. 1 What are the basic sources of experimental error? Discuss each source briefly. Differentiate between replication and randomization. (20)
- Q. 2 Give some reasons of designing experiments. Define RBD. Discuss also the merits, demerits and uses of RBD for statistical analysis. (20)
- Q. 3 Which basic steps involved in analyzing the data by using two and three factorial experiments? Discuss briefly. (20)
- Q. 4 Discuss in detail the basic uses of covariance analysis with your words. (20)
- Q. 5 How would you explain the use of covariance in completely randomized block design? Discuss briefly. (20)

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