Total No. of Questions: 09

B.Sc. (Agriculture) (2014 & Onwards)   (Sem. – 4)
BASIC STATISTICS
M Code: 72761
Subject Code: BSAG-409
Paper ID: [72761]

Time: 3 Hrs.   **Max. Marks: 60**

INSTRUCTIONS TO CANDIDATES:
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION A

1. Short Questions:

   a) What do you mean by t-test?

   b) What is the meaning of regression coefficients?

   c) Give meaning of Latin Square Design.

   d) Define correlation.

   e) What do you mean coefficient of variations?

   f) What is the meaning of mean deviation?

   g) What do mean by F-test?

   h) Give meaning test of hypothesis.

   i) What is the meaning of mathematical averages?

   j) Give meaning of addition theorem.

SECTION B

2. Give explanation regarding analysis of completely Randomized Design with examples.

3. Calculate Regression coefficients from the following data:

X	18	20	22	25	30
Y	24	28	30	35	44

4. Differentiate the terms Mean deviation and Standard deviation with examples.

5. Test the significance of the deference of means of the two samples at 5% level of significance from the following data:

	No. of items	Mean	S.D
Sample A	6	40	8.0
Sample B	5	50	10.0

   (table value of t for 9 d.f. at 5% level is 2.262)

6. What are the various limitations of statistics?

SECTION C

7. The following data gives the age distribution of patients suffering from particular disease in a hospital. Find the mean, median and mode

Age group	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
No. of Patients	31	47	59	78	104	113	81	60	52	25

8. a) Find the probability that an item drawn at random from a normal distribution with mean = 70 and S.D = 8 will be (i) between 70 and 82 and (ii) more than 82. (area of z, 1.5=0.4332)

   b) Write a short note on chi-square.

9. What are the various differences between correlation and regression analysis with examples?