Roll No. ⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜   **Total No. of Pages : 02**

Total No. of Questions : 09

B.Tech(Food Tech) (2014 Onwards)   (Sem.–7)
RESEARCH METHODOLOGY
Subject Code : BTFT-705
Paper ID : [74752]

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. **Answer briefly :**

   a. What is research process?

   b. What is the significance of research?

   c. What do you mean by testing the hypothesis?

   d. What is the need of data collection?

   e. What is qualitative design?

   f. What is central tendency?

   g. How ANOVA helps in interpretation of data?

   h. What is descriptive statistics?

   i. What is meaning of informed consent?

   j. What is the purpose of disseminating the research output?

SECTION-B

2. Discuss planning and designing a research study.

3. What are the precautions must be taken during data collection?

4. If standard deviation is 8, mean of the population is 30 and mean of the sample is 25 and expected level of accuracy is 99 %. Determine the sample size. (Given Z at 1 %= 2.576).

5. Discuss linear and non-linear regression.

6. Discuss the ethical considerations in research.

SECTION-C

7. a. A machine is designed to pack chemicals into bags. A random sample of 10 bags is drawn and the content of the bags (kg) is as follows : 42,52,46,49,50,52,51,45,47,49. Can we conclude that the average packing is 50kg? (Tabulated value of t at 5 % level =2.262).

   b. What is t-test? How it is helpful in reaching the conclusion?

8. Discuss ANOVA of two factor factorial design with suitable example.

9. Discuss overall structure of research report.