

School of Basic and Applied Sciences

BioScience
ETE - Jun 2023

Time : 3 Hours

Marks : 100

Sem IV - C2UH402C - Research Methodology and Scientific Writing

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. State the steps involved in designing a diagnostic research study. K1 CO2 (5)
2. Explain the following K2 CO2 (5)
(a) Experimental Research and (b) Analytical Research
3. Define field research. K1 CO1 (5)
- 4) Find the mean and standard deviation of the plant population with heights 10.5, 12.8, 11.6, 9.2 and 12.1 cms. K3 CO3 (10)

OR

- Solve for the standard deviation of following values for MTT assay:
103.2, 108.5, 109.4, 105 and 107.7 K3 CO3 (10)
5. Discuss the features that are necessary to describe a research question K2 CO2 (10)
 6. Prepare a schematic outline of principle steps of research process. Explain each step K3 CO2 (10)
 7. Examine different types of Inferential statistical methods K4 CO3 (10)
 8. Compare between a review article and a research article. K3 CO3 (15)
 - 9) What is plagiarism and why it should be avoided? How can plagiarism be avoided? K4 CO4 (15)

OR

- Organize your opinion on the following question:
"Was Bt cotton an advantageous application of Biotechnology?" K4 CO4 (15)
10. Analyze the behavioral pattern of normal rats and memory-impaired rats in Morris-water maze. (Try to explain how the maze works and use graphs). K4 CO3 (15)