School of Basic and Applied Sciences

BioScience

ETE - Jun 2024

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.	List the major sources of data collection for biotechnology research.	K1 CO1 (5)
2.	Describe survey research and its scope in biotechnology.	K2 CO2 (5)
3.	Define the following: (a) Mean, (b) Median, (c) Mode, (d) Percentage and (e) Standard Deviation	K1 CO2 (5)
4.	Classify biotechnology research in two broad categories and discuss the same.	K2 CO2 (10)
5.	Demonstrate how different errors can influence a biotechnology experiment and how error can be graphically represented.	K3 CO2 (10)
6.	How will you examine qualitative data obtained from DNA autoradiography and tissue immunohistochemistry images?	K4 CO3 (10)
7)	Use proper statistical approach to find the standard deviation of the brain weight after cerebral edema in the rat population: 5.5, 5.8, 5.2, 5, 5.5 gms.	K3 CO3 (10)

OR

	Demonstrate how personalized medicine can be the medicine of future.	K3 CO3 (10)
8.	Demonstrate the application of PRISM in biostatistical analysis mentioning its features, the types of statistics it can perform and graphs that can be produced.	K3 CO3 (15)
9.	Interpret the applications of genome editing and the related ethical concerns.	K4 CO3 (15)
10)	Examine why plagiarism is unethical and provide names of five online tools that can be used to check plagiarism. Organize your idea to write a plagiarism free article.	K4 CO4 (15)

OR

	Examine the following (any three): (a) Simple Random sampling, (b) Systematic Sampling, (c) Stratified Sampling and (d) Cluster Sampling	K4 CO4 (15)