

Total No. of printed pages = 5

63/2 (SEM-4) BIT 403

2023

BIOTECHNOLOGY

(Theory Paper)

Paper Code : BIT 403

(Research Methodology)

Full Marks – 80

Pass Marks – 32

Time – Three hours

The figures in the margin indicate full marks
for the questions.

1. Answer the following questions : 1×6=6

(a) Which of the following features are considered as critical in qualitative research ?

(i) Collecting data with the help of standardized research tools

(ii) Design sampling with probability sample techniques

[Turn over

- (iii) Collecting data with bottom-up empirical evidence
- (iv) Gathering data with top-down schematic evidence
- (b) In order to pursue the research, which of the following is priorly required ?
 - (i) Developing a research design
 - (ii) Formulating a research question
 - (iii) Deciding about the data analysis procedure
 - (iv) Formulating a research hypothesis
- (c) What is the main aim of interdisciplinary research ?
 - (i) To over simplify the problem of research
 - (ii) To bring out the holistic approach to research
 - (iii) To create a new trend in research methodology
 - (iv) To reduce the emphasis on a single subject in the research domain

- (d) A research problem is feasible only when
 - (i) It has utility and relevance
 - (ii) It is new and adds something to knowledge
 - (iii) It is researchable
 - (iv) All of the above
- (e) What are the core elements of a dissertation ?
 - (i) Introduction ; Data Collection ; Data Analysis ; Conclusions and Recommendations
 - (ii) Executive Summary ; Literature Review ; Data Gathered ; Conclusions ; Bibliography
 - (iii) Research Plan ; Research Data ; Analysis ; References
 - (iv) Introduction ; Literature Review ; Research Methodology ; Results ; Discussions and Conclusions
- (f) Summarize and synthesize are characteristics of ?
 - (i) Research design
 - (ii) Literature review
 - (iii) Story writing
 - (iv) Journalism

2. Define the following :

2×5=10

- (a) Case Report
- (b) Reference Card
- (c) Secondary data in Research
- (d) Census
- (e) Random Sample.

3. Write short notes on any *six* questions from the following :

5×6=30

- (a) In depth interviews
- (b) Research Ethics
- (c) Focus Group discussions
- (d) Plagiarism
- (e) Research hypothesis
- (f) APA Style of Referencing
- (g) Types of Scientific Writing
- (h) Literature Search
- (i) Action Research.

4. Describe any *two* from the following questions :
10×2=20

- (a) Describe the characteristics and logical format for writing a research papers.
- (b) What are the parameters looked into during ethical approvals for animal research and human health research ?
- (c) Discuss the necessity and different methods of literature review.

5. Describe any *one* from the following questions :
14×1=14

- (a) Discuss various data collection methods with suitable examples.
- (b) Discuss the essential components of a research proposal in the proposal format of DST-SERB or DBT or ICMR.