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RLS-101

**Ph. D. IN LIFE SCIENCE
(PHDLS)**

Term-End Examination

June, 2026

RLS-101 : RESEARCH METHODOLOGY

Time : 3 Hours

Maximum Marks : 100

Note : (i) Attempt any *five* questions.

(ii) All questions carry equal marks.

1. Discuss the different bioethical issues associated with sperm donation. What are the different policies for sperm donation ?

15+5

2. Describe the different forms of intellectual property rights and mention their importance. Add a brief note on Patent Co-operation Treaty.

16+4

3. Discuss the different biosafety concerns related to genetically modified plants. Write a brief note on the propositions of Cartagena protocol. 12+8
4. What are the different steps involved in a case-study method ? What skills are needed by a researcher for undergoing a proper case study ? Enumerate the advantages and disadvantages of case study. 7+6+7
5. Develop a brief proposal using the following components to investigate the emergence of malaria in Delhi, India. 2+4+4+5+5
- (i) Title
 - (ii) Research question and objective
 - (iii) Hypothesis
 - (iv) Research methodology
 - (v) Data collection and analysis
6. Differentiate between the following with suitable examples : 4×5=20
- (i) Null hypothesis and alternative hypothesis

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- (ii) Experimental group and control group
 - (iii) Hypothesis and theory
 - (iv) Descriptive and explanatory research
7. Write short notes on the following : $4 \times 5 = 20$
- (i) Predatory journals
 - (ii) Advantages of qualitative research
 - (iii) Criteria for high quality research
 - (iv) Focus groups as a research technique
8. (a) Write a note on concepts and variables in research.
- (b) Discuss the different types of research with example. 10+10

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