

Ph.D. IN BIOCHEMISTRY (PHDBC)

Term-End Examination

June, 2018

00055

**RBC-001 : RESEARCH METHODOLOGY,
BIOETHICS AND IPR**

Time : 3 hours

Maximum Marks : 100

Note : *The question paper consists of two sections, Section A and Section B. Both the Sections are compulsory.*

SECTION A

Attempt all the questions.

1. Define the following terms : 10×2=20
- (a) Diagnostic research
 - (b) Experimental research
 - (c) Hypothesis
 - (d) Transgenics
 - (e) Patent
 - (f) Plagiarism
 - (g) Living modified organism
 - (h) Bioterrorism
 - (i) Traditional knowledge
 - (j) Sample

SECTION B

Attempt any four questions. All questions carry equal marks.

2. Explain the different steps involved in a research process. 20
3. (a) What is meant by 'Experimental Design/Method'? Give one illustration with relevant example for this method. 10
- (b) What precautions should be taken by a researcher for writing a research report? 10
4. (a) Discuss the merits and demerits of the 'observational technique of data collection'. 10
- (b) Differentiate between the following pairs : 10
- (i) Quota Sampling and Sequential Sampling
- (ii) Qualitative and Quantitative Reporting
5. (a) What do you mean by "genetically modified food"? Discuss the application of GMOs in food and agriculture. 10
- (b) Describe the intellectual property rights covered by the TRIPS agreement. 10

6. (a) What are the various types of patents ?
Discuss any two of them in detail. 10
- (b) Discuss the concept of novelty and
inventive step. 10
7. Write short notes on any *four* of the
following : 4×5=20
- (a) Biological Hazard
 - (b) Biosafety Levels
 - (c) Plant Varieties Protection
 - (d) Latin Square Design
 - (e) Areas of Research in Biological Sciences
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