Pre. Ph.D. Course Work (2017 Course) SUPPLEMENTARY : (Biotechnology) : JUNE- 2019
SUBJECT : PAPER – II : BIOTECHNOLOGY

Day : Thursday   Time : 10.00 AM TO 1.00 PM
Date : 27/06/2019   **S-2019-5403**   Max. Marks : 100

N.B.

1) Attempt any **FIVE** questions from each section.
2) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 What is Bioremediation? Discuss the different methods and enlist their advantages. **(10)**

Q.2 What is "apoptosis of cell? Describe a method for its study. **(10)**

Q.3 What is toxicity? How is toxicity testing done? Describe briefly with a suitable example. **(10)**

Q.4 Discuss any two significant contributions of biotechnology for environment related issues. **(10)**

Q.5 What are vectors? How are vectors selected for cloning? Describe any one technique in brief. **(10)**

Q.6 What is "Real Time" PCR? What are its advantages over PCR? **(10)**

SECTION – II

Q.7 What is "Single Cell Protein"? What is its significance? **(10)**

Q.8 What are the essential components of a research proposal? What items should be included under the "budget' head? **(10)**

Q.9 What are "Quantum Dots"? Explain its use in medicine. **(10)**

Q.10 What are therapeutic agents? Discuss the advantages of and disadvantages of monoclonal antibodies as therapeutic agents. **(10)**

Q.11 State the principle and applications of ELISA. **(10)**

Q.12 Write Short Notes on: (ANY TWO) **(10)**
     a) Vaccines
     b) GC-MS
     c) Bioinformatics tools for analysis

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