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10BT82

**Eighth Semester B.E. Degree Examination, June/July 2019**  
**Bioethics and Biosafety**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.**

**PART - A**

- 1 a. Discuss the issues arise out of access into genetic information of an individual. (10 Marks)  
b. Explain the importance of society and environment in present day science and technology educational curriculum. (10 Marks)
- 2 a. Why education of the public of your biotechnological innovation is important. (10 Marks)  
b. List and explain the socioeconomic impact of introducing transgenic crop varieties. (10 Marks)
- 3 a. Explain the principle of bioethics. (10 Marks)  
b. Give an account of four components of medical ethics. (10 Marks)
- 4 a. Give an account of key elements of Cartagena protocol on biosafety. (10 Marks)  
b. Explain how risk is assessed during laboratory research involving generation of new form of life. (10 Marks)

**PART - B**

- 5 a. How organisms are classified into risks groups based on their potential effects on a healthy human adult? (10 Marks)  
b. Give an account of microbial hazards and their sort of exposure associated with microbiological laboratory research. (10 Marks)
- 6 a. Explain the biosafety guidelines for conducting research in transgenic plants. (10 Marks)  
b. Explain a set of good laboratory practice principles to achieve optimum biosafety. (10 Marks)
- 7 a. Explain the stepwise process of addressing relevant factors required for assessing safety of food derived from recombinant - DNA plant. (10 Marks)  
b. Discuss the different approaches adopted while releasing genetically modified organisms to the environment. (10 Marks)
- 8 Write short notes on :  
a. Plant breeder's rights  
b. Farmer's right  
c. Biosafety issues in clinical trials  
d. Biosafety assessment of drugs. (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg,  $42+8=50$ , will be treated as malpractice.