

Reg. No.

प्रज्ञानं ब्रह्म



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# Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)



## VI SEMESTER B.TECH (BIOTECHNOLOGY)

### END SEMESTER EXAMINATIONS, MAY/JUNE 2016

SUBJECT: BIOETHICS &amp; BIOSAFETY [BIO 324]

#### REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

#### Instructions to Candidates:

- ❖ Answer **ANY FIVE FULL** questions.
- ❖ Missing data may be suitable assumed.

<b>1A.</b>	Discuss the ecological risks of biotechnology products?	<b>3</b>
<b>1B</b>	Describe how storage and retention of test results and materials are done in the good laboratory practice?	<b>5</b>
<b>1C</b>	Why is Anthrax so popular as a biological weapon?	<b>2</b>
<b>2A</b>	How does bioethics help the biotechnology in future development?	<b>2</b>
<b>2B</b>	What is meant by physical, chemical or biological hazardous materials? Add a note on the use of such hazardous materials by the researchers in biotechnology.	<b>5</b>
<b>2C</b>	Explain the Cartagena biosafety protocol and its key issues.	<b>3</b>
<b>3A</b>	List out the most essential laboratory procedures that are basic to safe laboratory practices	<b>3</b>
<b>3B</b>	Briefly Explain the history of chemical and biological weapons?	<b>4</b>
<b>3C</b>	What are the main functions of Review Committee on Genetic Manipulation?	<b>3</b>
<b>4A</b>	Why so much outrage over globalization?	<b>2</b>
<b>4B</b>	Discuss the following WTO principles i. Most favoured nation ii. National treatment	<b>3</b>
<b>4C</b>	Define Intellectual Property Rights and explain four main types of Intellectual Property Rights with an example?	<b>5</b>
<b>5A</b>	What are the major concerns of Indian patent act 2005?	<b>3</b>
<b>5B</b>	Discuss in detail about following steps in granting of a patent i. Patent success starts in the lab ii. Invention evaluation iii. Patent prosecution	<b>7</b>
<b>6A</b>	What are the main objectives of patent cooperation treaty?	<b>3</b>

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<b>6B</b>	What are pros and cons of labelling of Genetically Modified Foods?	<b>3</b>
<b>6C</b>	Discuss the biodiversity based sustainable strategies for the development of Asia pacific countries.	<b>4</b>