

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: M.TECH
BRANCH: BIOTECH**

**SEMESTER : III
SESSION : MO/19**

TIME: 3 HOURS

SUBJECT: BE601 IPR, BIOSAFETY AND BIOETHICS

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) What is a patent? Discuss the criteria for patentability. [5]
Q.1(b) Discuss the Indian patent act 1970 and all of its amendments. [5]
- Q.2(a) Discuss the different types of patent applications. [5]
Q.2(b) List out the different patent databases and elaborate on their features. [5]
- Q.3(a) What is a non disclosure agreement? Discuss the precautions while patenting. [5]
Q.3(b) What are the existing schemes of financial assistance from the Government of India for patenting? [5]
- Q.4(a) What are biosafety levels? Discuss the Cartagena protocol on biosafety and BCH. [5]
Q.4(b) Differentiate between GMOs and LMOs and discuss their various advantages and disadvantages. [5]
- Q.5(a) What are biological weapons? Discuss a few cases of bioterrorism. [5]
Q.5(b) Enlist five biotechnological products or techniques and their possible ethical implications. [5]

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