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Total Number of Pages: 01

**B.TECH**  
**PCBT4404**

**8<sup>th</sup> Semester Regular / Back Examination 2016-17**  
**IPR IN BIOTECHNOLOGY, BIOSAFETY AND BIOETHICS**  
**BRANCH: BIOTECH**  
**Time: 3 Hours**  
**Max Marks: 70**  
**Q.CODE: Z271**

**Answer Question No.1 which is compulsory and any five from the rest.**  
**The figures in the right hand margin indicate marks.**

- Q1 Answer the following questions: (2 x 10)**
- a) Define trade secret with examples.
  - b) Define Industrial design with example.
  - c) Differentiate between GMOs and LMOs.
  - d) What are the different types of patent?
  - e) Write down the characteristic features of biohazard?
  - f) Differentiate between product patent and process patent.
  - g) What is infringement?
  - h) What is GCP?
  - i) Define WIPO, WTO and GATT.
  - j) What are the implications of PCT?
- Q2 a) Discuss the different types of IPR as per TRIPS agreement. (5)**  
**b) Discuss the different recommended biosafety levels for infectious agents. (5)**
- Q3 a) Discuss different requirements for international patenting. (5)**  
**b) Discuss the recent amendments in Indian Patent Act 1970. (5)**
- Q4 Discuss the ethical, legal and social implications of human genome project. (10)**
- Q5 a) Write the importance of Budapest Treaty. (5)**  
**b) Discuss Geographical indications with suitable examples. (5)**
- Q6 a) Write a note on Ethics in Clinical trial. (5)**  
**b) Discuss the Cartagena protocol. (5)**
- Q7 a) Discuss the detail procedure of patent filing. (5)**  
**b) Write a note on different remedies available against Patent Infringement. (5)**
- Q8 Write Short Notes (Any Two): (5 x 2)**
- a) Copyright and related rights
  - b) Public concern on transgenics
  - c) Ethics in Human cloning
  - d) Environmental release of GMOs.