

**M. Sc. Examination 2023**  
**Semester IV**  
**Biotechnology**

Paper XVII: Bioethics, Intellectual property rights, Biosafety and Research Methodologies

**Time: 3 hours**

**Full Marks: 40**

Questions are of value as indicated in the margin.

Answer any four questions

1. (a) Why are there so many regulatory issues regarding biotechnology research? Describe briefly the relevant national and international regulations.  
 (b) What is PCT? Describe briefly the advantages of PCT.  
 $(3+2)+(2.5+2.5)=10$
2. What do you understand by patient confidentiality? What is the necessity of patient confidentiality? How can an organization working with patient data maintain the confidentiality of data?  
 $2+4+4=10$
3. Describe briefly the procedure for field trials of genetically modified food crops. What are the precautions that need to be taken in this regard.  
 $10$
4. Write short notes  
 (a) Budapest treaty.  
 (b) Bioprospecting.  
 (c) Ethics in assisted reproductive technologies.  
 (d) Cartagena protocol.  
 $2.5 \times 4 = 10$
5. (a) What are the concerns regarding euthanasia?  
 (b) Briefly describe the role of FSSAI. How is FSSAI involved with the biotechnology industry?  
 $4+(3+3)=10$
6. (a) Describe the provision for protection of new varieties of plants in India.  
 (b) Describe briefly the different sections of writing a project proposal for funding.  
 $5+5=10$