

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

Sub. Code :

2	5	9	5	3
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Exam. Code :

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**M.Sc. Bio-Technology 4th Semester
(2056)**

**INTELLECTUAL PROPERTY RIGHTS, BIOSAFETY AND
BIOETHICS**

Paper : MBIO-403

Time Allowed : Three Hours] [Maximum Marks : 80

Note :— Attempt five questions in all. Q.1 is compulsory. Select one question from each unit.

1. (a) What are exclusive marketing rights?
- (b) What is a voluntary license and compulsory license?
- (c) What is a provisional specification?
- (d) What are standard essential patents and their significance?
- (e) What is technology transfer?
- (f) What are social implications of patenting in biotechnology?
- (g) What is TRIPS Agreement and its role?
- (h) What is UPOV? 2×8=16

UNIT-I

2. (a) Discuss non-patentable subject matter in India. 8

- (b) Write notes on:
- (i) Creative Commons
- (ii) Design piracy. 8
3. (a) Give features of a trademark. How are trademarks protected in India? 8
- (b) Write notes on:
- (i) Fair use doctrine in copyrights
- (ii) PCT. 8

UNIT-II

4. (a) Give detail of patent filing procedure in India. 8
- (b) Write notes on:
- (i) Alternate Dispute resolution
- (ii) Principle of exhaustion of patent. 8
5. (a) Discuss doctrine of equivalents in patent infringement. 6
- (b) Explain concept of novelty requirement for patent filing. How can the novelty of an invention be judged? 6
- (c) Enlist important databases for patent literature search. 4

UNIT-III

6. (a) Which life forms can be patented in India? What are the requirements for biotechnology-based patent filings? 8
- (b) Write notes on:
- (i) Budapest treaty
- (ii) PPA. 8

7. (a) Enlist case studies on biotechnology patents from developed and developing countries. 8
- (b) Write notes on:
- (i) Utility patents
- (ii) PVPFRA. 8

UNIT-IV

8. (a) Explain MTA and its role in biotechnology transfer. 8
- (b) How can voluntary licensing and differential pricing help in IP management of pharmaceutical products? 8
9. (a) Enlist different options to encourage innovators instead of intellectual property rights. 8
- (b) How can collaborative research efforts encourage innovation and IP asset development? 8