

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086**  
**(For candidates admitted during the academic year 2019 – 2020 & thereafter)**

**M. Sc. DEGREE EXAMINATION, APRIL 2024**  
**BIOTECHNOLOGY**  
**FOURTH SEMESTER**

**COURSE : ELECTIVE**  
**PAPER : IPR, BIOSAFETY, BIOETHICS AND ENTREPRENEURSHIP**  
**SUBJECT CODE : 19BY/PE/IB15**  
**TIME : 3 HOURS** **MAX. MARKS: 100**

**SECTION – A**

**ANSWER ALL THE QUESTIONS**

**(10 x 2 = 20)**

1. The creative act of determining and defining a product's form and features is called
  - a) Patent
  - b) Traditional Knowledge
  - c) Industrial Design
  - d) Copyright
2. The international agreement regulating the movement of living modified organisms from one country to another is called
  - a) Caragena Protocol
  - b) Cartagena Protocol
  - c) Carmelina Protocol
  - d) None of these
3. The procedure offered to women during pregnancy to determine the health of the foetus is known as
  - a) Prenatal Diagnosis
  - b) Prenatal observation
  - c) *In-vitro* fertilization
  - d) *In-vitro* examination
4. \_\_\_\_\_ provides managers with information to monitor and evaluate project performances.
  - a) Project Analysis
  - b) Project Regulation
  - c) Project Formulation
  - d) Project Report
5. What is DBT?
  - a) Directorate of Biotechnology
  - b) Department of Biotechnology
  - c) Directorate of Bioprocess
  - d) Department of Bioprocess
6. Expand TRIPS & WIPO.
7. Define LMOs.
8. Define Biopiracy.
9. What are the functions of a planning commission?
10. Define a technology incubator.

**SECTION – B**

**ANSWER ALL THE QUESTIONS**

**(5 x 8 = 40)**

11. a) Differentiate provisional and complete specification.  
**(OR)**  
b) Explain the regulations to patent a living organism.
12. a) Write on the good laboratory practices.  
**(OR)**  
b) Explain the guidelines for rDNA research activity.

13. a) What is the purpose of clinical trials? Explain.

**(OR)**

b) Elaborate on the ethical implications of cloning and GMOs.

14.a) Explain the methods of project appraisals.

**(OR)**

b) List and explain the types of entrepreneurs.

15.a) Illustrate the strategies employed in new product development in Biotechnology.

**(OR)**

b) Write a note on the funding agencies in Biotechnology business.

**SECTION – C**

**ANSWER ANY TWO QUESTIONS**

**(2 x 20 = 40)**

16. What is an IP? Explain the types of industrial IPs.

17. Elucidate biosafety levels for infectious agents and animals.

18. Write a note on human genome project.

19. Write an account on the biotechnology industries in India.

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