



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD (now MoE)

Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – February 2025

Semester-II

Class: I M.Sc.

Time : 2 hrs

Major: Biochemistry/ Bioinformatics/Chemistry

Max. Marks :60

23MBTI01– Prospects of Biotechnology

Course Outcomes:

After completing this course, the student will

CO1: Perform basic tools/ techniques of biotechnology applied in healthcare.

CO2: Comprehend the role of biotechnology in textiles.

CO3: Understand the biotechnological aspects of nutrition.

CO4: Recognize the significance of biotechnology in plant and animal products.

CO5: Establish the role of biotechnology in achieving sustainable environment.

Part – A

Choose the correct answer

6X1=6

1. What are monoclonal antibodies?
a. antibody produced by a single type of immune cell
b. antibodies found in blood of newborns
c. antibodies with multiple antigen binding sites
d. antibodies derived from multiple individuals
CO1K1
2. Di-Sulfide bond is first formed in which structure of the insulin molecule?
a. proinsulin b. metaprosulin c. preproinsulin d. proinsulin
CO3K2
3. Somatostatin is secreted by
a. pituitary b. thyroid c. pineal d. hypothalamus
CO3K1
4. The enzyme used for de-sizing in textile industry is
a. catalase b. protease c. pectinase d. amylase
CO2K2
5. Cotton, wool, silk are examples of _____
plant Fibres b. animal Fibres c. natural Fibres d. synthetic Fibres
CO2K2 a.
6. The starch which is not digested by small intestine are
a. modified starch b. gelatinized starch c. resistant starch d. dextrified starch
CO3K3

Part – B

3x6=18

Answer the following

Answer should not exceed 400 words or two pages

7. a. Discuss the production and Therapeutic uses of insulin using rDNA technology. CO1K2 Or
7. b. Illustrate the steps involved in the production of human growth hormone. CO1K3
8. a. Describe the strategies adopted to improve the natural fibres. CO2K2
Or
8. b. What are novel fibres? Explain its significance. CO2K3
9. a. Explain probiotics and prebiotics with suitable examples. CO3 K2
Or
9. b. What is meant by Biofortification? How it is done in food crops? CO3K2

Part – C
Answer the following
Answer should not exceed 800 words or four pages

3 x 12 = 36

10 a. Illustrate the steps involved in the monoclonal antibodies. List out its applications.
Or CO1K2

10. b. Explain in detail about different types of vaccine CO1K2

11. a. Elaborate the features, applications and advantages of Transgenic cotton,
colored cotton and hybrid cotton. CO2K2

Or

11. b. Comprehend the enzymes used in textile industry CO2 K2

12. a. Outline the classification of functional foods with examples and their uses CO3K2

Or

12. b. Elucidate the concepts of Nutrigenomics CO3K3

Staff In charge: Dr.S.Velvizhi , Dr.T.Poongodi

No. of Copies: 8