Avinashilingam Institute for Home science and Higher education for women,
Coimbatore - 641043
Continuous Internal Assessment II – April 2025
Semester II

Class: I PG **Time: 2 hours**
Major: Bio-Textiles **Max. Marks: 60**

23MBXC10 Textile Microbiology

Course Outcomes:

- Understand the basics of microbiology and microbial applications in textile field
- Describe the assay of fermentation products and downstream processing
- Differentiate Prokaryotic and eukaryotic cell structure and Outline the different methodsof culturing microorganisms
- Identify the nutrient requirements for microbial growth
- Apply microbial pigments and impart antimicrobial finish on textiles

Part – A

Choose the correct answer **6 x 1= 6**

1. A laboratory culture containing only one species or strain of an organism is called as CO3 K2
   a. Pure culture b. Mixed culture c. Batch culture d. Continuous culture
2. A closed culture system that contains limited amounts of nutrients CO3 K2
   a. Batch culture b. stock culture c. Pure culture d. continuous culture
3. Recovery and purification of biosynthetic products is called as CO2 K1
   a. Enzymatic processing b. Chemical processing c. Downstream processing
   d. Upstream processing
4. Which of the following is not the physical method for the cells rupturing? CO2 K2
   a. Milling b. Homogenization c. Ultrasonication d. Enzymatic digestion
5. An example of natural antimicrobial agent is CO5 K2
   a. Turmeric b. Chitosan c. Zinc d. Copper
6. The following enzymes are used for Fiber Softening EXCEPT CO5 K2
   a. Cellulase b. Pectinase c. Hemicellulase d. Amylase

Part-B **3 X 6 = 18**

Answer ALL the following questions.
Answer should not exceed 400 words or two pages

7. a. Explain in brief about different methods for the maintenance of pure cultures. CO3K2

   OR

   b. Discuss the culturing of anaerobic microbes. CO3K2
8. a. Explain the various methods of solid-liquid separation CO2K2

   OR

   b. Give an account on purification of fermentation products. CO2K2
9. a. Explain in brief about extraction and softening of fibers using microbes CO5K2

   OR

   b. Write short notes on extraction of bacterial and fungal pigments. CO5K2

Part – C **3 x 12 = 36**

Answer ALL the following questions.
Answer should not exceed 800 words or four pages

10. a. Elaborate on the culturing of aerobic microbes. CO3K2

    OR

    b. Describe in detail about isolation of bacterial culture. CO3K2
11. a. Give a detailed account on the assay of fermentation products CO2K2

    OR

    b. Describe the different methods of cell disruption CO2K2
12. a. Discuss the antimicrobial finishing methods and its evaluation on fabrics. CO5K2

    OR

    b. Give a detailed account on antimicrobial finish. CO5K2

Staff Incharge: Dr.K.Kalaiarasi
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