



*M.Tech. 2025*  
*Final Exam, December*  
**Department of Food Technology**  
**School of Interdisciplinary Sciences and Technology**  
**Jamia Hamdard, New Delhi-110062**  
**END SEM EXAMINATION (M Tech Food Tech (ISem), Dec 2025)**

Roll No.....

*8.12.25*  
*M.Tech.*  
*ISem*  
*End Sem.*

**Paper Title: Food Chemistry & Microbiology**  
**Time allotted: 3 Hrs.**  
*2.5*

**Paper Code: MFTC-101**  
**Max Marks: 60**

**Section-A (2 Marks each, Attempt All)**

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|----------------------------------------------------|----------------|
| Q1. What are oligosaccharides.                     | (CO1/PO3, PO5) |
| Q2. Define water activity.                         | (CO1/PO2, PO5) |
| Q3. What is protein denaturation.                  | (CO1/PO5, PO8) |
| Q4. Explain why density of ice is less than water. | (CO1/PO2, PO3) |
| Q5. Define mycotoxin                               | (CO6/PO4, PO5) |

**Section- B (Attempt any 5) (5 Marks Each)**

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|--------------------------------------------------------------------------------------------------------------------------|----------------|
| Q6. Briefly Discuss the detailed structural organization of proteins and illustrate it using clearly labelled diagrams." | (CO1/PO4)      |
| Q7. Discuss the different modes of reproduction in bacteria.                                                             | (CO6/PO2, PO3) |
| Q8. Discuss the steps involved in lipid refining.                                                                        | (CO1/PO1, PO2) |
| Q9. Write a detailed note on Food borne diseases with examples.                                                          | (CO5/PO4, PO5) |
| Q10. Explain rancidity & its types.                                                                                      | (CO1/PO4, PO6) |
| Q11. Explain rapid methods for the detection of food-borne pathogens."                                                   | (CO6/PO2)      |
| Q12. Discuss contamination, spoilage, and preservation of milk.                                                          | (CO5/PO5)      |
| Q13. Write a detailed note on production of any fermented food production.                                               | (CO7/PO4, PO6) |

**Section C (Attempt any 2) (12.5 Marks Each)**

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|------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Q14. Elaborate Fat Modification, its methods and application in food in detail.                                                    | (CO1 /PO2)     |
| Q15. Differentiate between gelatinization and retrogradation of starch, highlighting the sequential changes in granule morphology. | (CO1/PO2, PO3) |
| Q16. Define Food Additives. Explain in detail their different types and their technological functions.                             | (CO5/PO1, PO3) |
| Q17. Provide an insight about the types, sources and deficiency disease of minerals.                                               | (CO2/ PO6)     |