

Reg. No.: .....



Name: .....

**University of Kerala**

U9322

Second Semester FYUGP Degree Examination, April 2025

Multi-Disciplinary course

**MICROBIOLOGY**

**UK2MDCMBY102 - Entrepreneurial Microbiology**

Academic Level: 100-199

**Time: 1 Hour 30 Minutes(90 Mins.)**

**Max. Marks: 42**

**Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions**

| Qn No. | Question                                                                                       | CL | CO |
|--------|------------------------------------------------------------------------------------------------|----|----|
| 1      | What does HRD stand for?                                                                       | RE | 1  |
| 2      | Give an example of an alkaloid found in tea or coffee.                                         | RE | 4  |
| 3      | Which microorganism is used as a biofertilizer for nitrogen fixation in leguminous plants?     | UN | 3  |
| 4      | <b>Suggest any one agricultural waste can be that used substrate for mushroom cultivation?</b> | UN | 3  |
| 5      | Why are natural oils used in cosmetic formulations?                                            | UN | 4  |
| 6      | What is the main focus of the latest Industrial Policy of India?                               | UN | 2  |

**Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions**

| Qn No. | Question                                                                            | CL | CO |
|--------|-------------------------------------------------------------------------------------|----|----|
| 7      | How does entrepreneurship contribute to economic growth?                            | UN | 1  |
| 8      | How do financial institutions encourage women entrepreneurs in India?               | UN | 2  |
| 9      | What are the best ways to ensure uniform mushroom growth in large-scale production? | AP | 3  |
| 10     | What measures can be taken to improve the safety and effectiveness of bioplastics?  | AP | 4  |

**Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options \* within each question**

| Qn No. | Question                                                                                                                                                                                                                                                                                                                                                                                                        | CL | CO   |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------|
| 11     | <p>A)<br/>To ensure consistency in large-scale yogurt production, what quality control measures would you implement?</p> <p>OR<br/>B)<br/>What role does yeast selection play in wine production and how would you apply it to improve taste and aroma?</p>                                                                                                                                                     | AP | 3, 3 |
| 12     | <p>A)<br/>Analyze how IDBI's financial strategies and services contribute to industrial development in India and assess their impact on economic growth?</p> <p>OR<br/>B)<br/>Analyze the role of NABARD's initiatives in agricultural and rural development, and examine how its financial and institutional support impacts rural economies in India ?</p>                                                    | AN | 2, 2 |
| 13     | <p>A)<br/>Evaluate the effectiveness of Intellectual Property Rights (IPR) in promoting innovation and entrepreneurship. Do IPR protections always serve the best interests of entrepreneurs and society?</p> <p>OR<br/>B)<br/>Evaluate the most significant challenges new entrepreneurs face in launching and sustaining a business. Which challenges should be prioritized for strategic focus, and why?</p> | EV | 1, 1 |
| 14     | <p>A)<br/>Design a healthcare product using sanitizers and antiseptic solutions. How would you ensure its safety and effectiveness?</p> <p>OR<br/>B)<br/>Create a cosmetic line using microbial-based products. What advantages would these products offer over traditional ones?</p>                                                                                                                           | CR | 4, 4 |