

NOVEMBER/DECEMBER 2019

**MAM12 — FOOD, AGRICULTURE AND ENVIRONMENTAL MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks

**SECTION A — (5 × 6 = 30 marks)**

Answer ALL questions.

1. (a) Give a brief note on the primary sources of microorganisms in food.

Or

- (b) Explain about the chemical preservatives used in food preservation.

2. (a) Discuss briefly the sanitation in food manufacture unit.

Or

- (b) Write about the staphylococcal food intoxication.

3. (a) Write short notes on the interaction between microbes and plant root.

Or

- (b) Discuss in brief about

- |                  |     |
|------------------|-----|
| (i) Parasitism   | (2) |
| (ii) Competition | (2) |
| (iii) Amensalism | (2) |

4. (a) Bring out the importance of phosphorous cycle with a neat diagram.

Or

- (b) Write about the mass production of BGA.

5. (a) Write about any two air borne diseases with their symptoms and preventive measures.

Or

- (b) Explain the process involved in solid waste treatment.

**SECTION B — (3 × 15 = 45 marks)**

Answer any THREE questions.

6. Explain in detail about the contamination preservation and spoilage of meat product's.

7. Explain the principles of HACCP.

8. Discuss the factors influencing the growth of soil microflora.

9. Describe in detail about the isolation identification and mass production of Rhizobium.

10. How will you assess the microbiological quality of water by MPN method.