

B.Sc. (CBCS Pattern) Sem-II  
**014B - Microbiology (Paper-II) : Applied Microbiology**

P. Pages : 2

Time : Three Hours



**GUG/W/22/11589**

Max. Marks : 50

- Notes :
1. All questions are compulsory
  2. All questions carry equal marks.

1. Describe lemon sampler and Anderson sampler for microbial enumeration of air. **10**

**OR**

a) Write a note on laminar air flow system. **2½**

b) Describe radiation as a room sterilization technique. **2½**

c) Write various air borne diseases with their causative agents. **2½**

d) Write a note on sources of microorganisms in air. **2½**

2. Describe in detail construction and mechanism of working of rapid sand filter. **10**

**OR**

a) Write a note on Indole test. **2½**

b) What is MPN? How it is calculated. **2½**

c) Write a note on Ammonia – Chlorine treatment. **2½**

d) What are coliforms? Differentiate between faecal and non-faecal coliforms. **2½**

3. Describe Trickling filter and activated sludge process for secondary treatment of sewage. **10**

**OR**

a) Write a note on BOD, COD and Th. OD. **2½**

b) Write a note on Imhoff tank. **2½**

c) Write a note on Composition of sewage. **2½**

d) Write a note on RBC. **2½**

4. Describe in detail process of production of collage cheese in detail? **10**

**OR**

a) Write a note on yoghurt. **2½**

- b) Define Pasteurization? Describe various methods of pasteurization. 2½
- c) Describe bacteriological examination of milk by SPC. 2½
- d) Write a note on phosphatase test. 2½

**5. Attempt any ten**

- a) What is aerosol? 01
- b) What is pore size of HEPA filter used in laminar air flow system. 01
- c) Write composition of air? 01
- d) Write Thomas formula for calculation of MPN / 100ml. 01
- e) What is Eijkman test? 01
- f) Enlist any two water borne diseases with causative agents. 01
- g) What are various types of sewage? 01
- h) What is preliminary treatment of sewage? 01
- i) What is Biofilm in trickling filter? 01
- j) Write composition of milk. 01
- k) What is DMC? 01
- l) Any two milk borne diseases with causative organism. 01

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