

**B.Sc. Semester III (Honours) Examination, 2018-19**

**MICROBIOLOGY**

**Course ID : 32205**

**Course Code : SHMCB-305 SEC-1(T)**

**Course Title : Microbiological analysis of air and water**

**Time: 2 Hours**

**Full Marks: 40**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

*Answer all the questions.*

1. Answer *any five* of the following: 2×5=10
- (a) What are faecal coliforms?
  - (b) What is the full form of HEPA? Where is it used?
  - (c) What do you mean by incineration and desiccation?
  - (d) Name one air borne disease and its causative agent.
  - (e) What is allergen?
  - (f) What is the mode of action of UV light on killing microorganisms?
  - (g) Name one water borne disease and its causative agent.
  - (h) Write full form of BCG and DPT.
2. Answer *any four* of the following: 5×4=20
- (a) Write down briefly about various sampling method of bioaerosols.
  - (b) Discuss briefly about membrane filter technique.
  - (c) Write a note on following air-borne disease 2½×2=5
    - (i) Influenza
    - (ii) Diphtheria 2½×2=5
  - (d) Write a short note on following water borne diseases 2½×2=5
    - (i) Cholera
    - (ii) Typhoid
  - (e) What is the full form of MPN. Discuss schematically the procedure of MPN test. 1+4=5
  - (f) Expand IMViC. State the Principle of Indole and citrate test. 1+4=5

3. Answer *any one* question of the following: 10×1=10

(a) Describe briefly about different potability test of water — Presumptive, Confirmatory and completed test.

(b) Discuss different media used in cultivation of bacteria and fungi. What is CFU? Discuss briefly about the mode of action and application of following agent for controlling microorganisms — High temperature, Ethylene dioxide, Phenol and iodine. 5+1+4=10

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