

Enrollment No:-\_\_\_\_\_

Exam Seat No:-\_\_\_\_\_

# C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4LS03MBO2

Subject Name: Applied Microbiology

Course Name: B.Sc. (Micro)

Date: 8/5/2015

Semester: III

Marks : 70

Time: 02:30 TO 05:30

---

**Instructions:**

- 1) Attempt all Questions of both sections in same answer book/Supplementary.
  - 2) Use of Programmable calculator & any other electronic instrument prohibited.
  - 3) Instructions written on main answer book are strictly to be obeyed.
  - 4) Draw neat diagrams & figures (if necessary) at right places.
  - 5) Assume suitable & perfect data if needed.
- 

**SECTION-I**

- Q.1 Answer the following questions 7
- (A) What is water pollution index?  
(B) Give two examples of microorganisms commonly found in air.  
(C) What would be the effect of humidity on air micro flora?  
(D) What are halophiles?  
(E) Write names of two microorganisms found in marine environment.  
(F) What does presence of coliform in fresh water indicate?  
(G) What is aerosol?
- Q.2 (A) Explain composition of air with schematic representation 5  
(B) Explain various indicator microorganisms in water. 5  
(C) Write down characteristics and examples of coliform. 4
- OR**
- Q.2 (A) Explain interaction between aquatic micro flora and environment. 5  
(B) Explain water pollution index. 5  
(C) Write principle of any two biochemical test utilized for qualitative analysis of water. 4
- Q.3 (A) Explain composition of milk and micro flora present in it. 5  
(B) Explain microbial spoilage of fresh food. 5  
(C) Explain MBRT test. 4
- OR**
- Q.3 (A) Explain the process of sewage water treatment. 5  
(B). Explain any two milk borne diseases 5  
(C) Explain curd formation from milk 4



## SECTION-II

- Q.4 Answer the following questions 7
- (A) Define mutualism.
  - (B) Define commensalism.
  - (C) What is difference between predation and parasitisation?
  - (D) What are endosymbiotic microorganisms?
  - (E) Define bioleaching.
  - (F) Write types of pollutant.
  - (G) What is biodeterioration?

- Q.5 (A) Write a note on symbiosis with appropriate example 5
- (B) Explain carbon cycle. 5
  - (C) Explain types of pollutant. 4

**OR**

- Q.5 (A) Explain parasitisation with an example. 5
- (B) Explain nitrogen cycle. 5
  - (C) Explain Soil and microbes interaction. 4

- Q.6 (A) Explain sulphur cycle. 5
- (B) Explain Biodeterioration of paper. 5
  - (C). Explain bioplastic. 4

**OR**

- Q.6 (A) Explain bioleaching in detail. 5
- (B) Explain biodeterioration of wood. 5
  - (C) Write a note on biofuels. 4

