

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

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

# C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4LS01MBO1

Subject Name: World Of Microbes

Course Name: B.Sc. (Micro)

Date: 8/5/2015

Semester: I

Marks: 70

Time: 10:30 TO 01:30

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**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.
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**SECTION-I**

Q-1 Define the following

- (a) Microbiology (b) Animalcules (c) Antigen (d) Serology (e) Media (f) PFU  
(g) Pure culture (7)

Q-2(a) Write a note on Theory of spontaneous generation. (5)

Q-2(b) Describe germ theory of disease (5)

Q-2(c) Explain the contributions of Louis Pasteur (4)

**OR**

Q-2(a) Explain the contributions of Anton Van Leewonhoek in the field of Microbiology. (5)

Q-2(b) Explain the contributions of Ignaz Semmelweiss in the field of Microbiology. (5)

Q-2 (c) Briefly discuss the current scope of microbiology. (4)

Q-3(a) In brief describe history of microbiology. (5)

Q-3(b) Write short note on types of media. (5)

Q-3 (c) Describe spore staining process. (4)

**OR**

Q-3(a) Differentiate between acid fast staining & gram staining. (5)

Q-3(b) Classify various microscopic techniques. (5)

Q-3(c) Differentiate between electron transmission & scanning microscopy. (4)



## SECTION-II

Q-4 Define the following:

- (a) Leucostain (b) Magnification (c) Dye (d) Chromophore (e) Sterilization  
(f) D value (g) Antibacterial (7)

Q-5(a) Briefly describe the sbright field microscopy. (5)

Q-5(b) Explain the principle & procedure of flagella & capsule staining. (5)

Q-5(c) Explain physical theory of staining. (4)

**OR**

Q-5(a) Classify Dyes with examples. (5)

Q-5(b) Describe the bacterial cell structures external to the cell wall. (5)

Q-5 (c) Classify sterilization techniques. (4)

Q-6(a) Write short note on physical agents of microbial control. (5)

Q-6(b) Describe characteristics of ideal antimicrobial agent. (5)

Q-6(c) Differentiate between gram positive & gram negative bacteria. (4)

**OR**

Q-6(a) Describe structure of gram negative cell wall. (5)

Q-6(b) Classify antimicrobial agents. (5)

Q-6 (c) Describe the structure of horizontal autoclave with neat labeled diagram. (4)

