

C.U.SHAH UNIVERSITY

Wadhwan City

Subject Code :4LS02MB01

Summer Examination-2014

Date: 04/06/2014

Subject Name Microbial Physiology and Biochemistry

Branch/Semester:- B.Sc(Micro)/II

Time:02:00 To 5:00

Examination : Regular

Instructions:-

- (1) Attempt all Questions of both sections in same answer book / Supplementary
- (2) Use of Programmable calculator & any other electronic instrument is 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 Define the following:

- a) Enzyme b) Pure culture c) Carbohydrate d) Lipid e) Acid value f) Mutarotation g) Zwitterion
[01 mark each]

- Q.2 a) Describe stereochemistry of carbohydrates. [05]
 b) Write a short note on glycosidic bonds. [05]
 c) Describe the structure of cellulose. [04]

OR

- Q.2 a) Write a short note on peptidoglycans. [05]
 b) Classify fatty acids with two examples each. [05]
 c) Write a short note on PGs. [04]

- Q.3 a) Enumerate the various methods of isolating pure cultures. Explain any two. [07]
 b) Describe binary fission in detail. [07]

OR

- Q.3 a) How do bacteria reproduce? Describe fragmentation method. [07]
 b) Define growth of bacteria. Explain the growth curve. [07]

SECTION II

Q.4 Define the following:

- a) Synchronous culture b) Continuous culture c) Colony d) Essential amino acid e) RM number
 f) Rancidity g) Enantiomer [01 mark each]

- Q.5 a) Explain Watson & Crick model of DNA. [05]
 b) Classify enzyme inhibitors with their mechanisms. [05]
 c) International classification of enzymes. [04]

OR

- Q.5 a) Describe titration curve of glycine. [05]
 b) Classify glycosidic bonds. Give structure of starch. [05]
 c) How are peptide bonds formed? Give one example. [04]

- Q.6 a) Describe various levels of protein structure. [07]
 b) Describe properties and functions of glycolipids. [07]

OR

- Q.6 a) Explain Structure and biological functions of fibrous proteins. [07]
 b) Compare Denaturation and annealing of DNA. [07]

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