

(116) SARDAR PATEL UNIVERSITY
M.Sc. Integrated Biotechnology – Semester III
PS03CIGB04: MICROBIOLOGY – II

Wednesday, 5th December, 2012

Time: 2:30 p.m. to 5:30 p.m.

Total Marks: 70

- Note: (i) Figures to the right indicate marks.
 (ii) Draw diagrams wherever necessary.

Q-1 Multiple Choice Questions. (08)

- (1) The full name of HEPA filter is _____ filter.
 (a) High Efficiency Particle Air (b) High Efficiency Particular Air
 (c) High Efficiency Particulate Air (d) Higher Efficiency Particulate Air
- (2) Excessive accumulation of fluids in tissue is known as _____.
 (a) Edema (b) Papules
 (c) Odema (d) Nodules
- (3) _____ is secreted in tears.
 (a) Lipozyme (b) Lysozyme
 (c) Antibiotic (d) All of three
- (4) Winogradsky column is used in _____ cycle.
 (a) Phosphorus (b) Carbon
 (c) Nitrogen (d) Sulphur
- (5) Kefir is a _____ product.
 (a) Milk (b) Wheat
 (c) Buttermilk (d) Milk and wheat
- (6) In Whittaker's five kingdom concept prokaryotes are included in _____ kingdom.
 (a) Plantae (b) Protista
 (c) Monera (d) Animalia
- (7) _____ scheme is used to arrange organisms in to groups.
 (a) TAXA (b) Strain
 (c) Genus (d) None of three
- (8) The sludge, which has already undergone a digestion, is called _____ sludge.
 (a) Ripe (b) Advanced
 (c) Floccules (d) Activated

Q-2 Answer any seven of the following questions in brief. (14)

- (1) Define: Bacteremia, Pyemia
- (2) Explain Single Cell protein.
- (3) Discuss the factors influencing air flora.
- (4) Enlist normal flora of eyes.
- (5) What is Rhizosphere? Explain.

(P.T.O.)

- (6) Name and explain the test done for qualitative analysis of milk.
- (7) What do you mean by numerical taxonomy?
- (8) What are coliforms? List microorganisms other than coliforms present in fresh water.
- (9) Enlist criteria used for classification of bacteria.

- Q-3**
- (a) Write a note on Whittaker's five kingdom concept in detail. (06)
 - (b) Discuss briefly about Molecular chronometer and Numerical classification. (06)

OR

- (b) Enlist and explain any two molecular methods used for microbial classification. (06)

- Q-4**
- (a) Enlist phagocytic cells and add a note on mechanism of phagocytosis. (06)
 - (b) Give an account on normal flora of skin and mouth. (06)

OR

- (b) Describe in detail about factors affecting virulence. (06)

- Q-5**
- (a) Write a complete note on nitrogen cycle. (06)
 - (b) Depict milk microflora and write a note on Pasteurization. (06)

OR

- (b) Enlist techniques used for preservation of food and explain any two in detail. (06)

- Q-6**
- (a) Write an inclusive note on bacteriological analysis of freshwater. (06)
 - (b) Enlist methods for enumeration of air microflora and discuss any two in detail. (06)

OR

- (b) Describe in detail about Standard Multiple Tube Fermentation Technique. (06)
