DG-3140
B. Sc. (Microbiology) (Sem. V) Examination
March/April - 2016
MB-16 : Environmental Microbiology

Time : 2 Hours] [Total Marks : 50

Instructions : (1)

(2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagram wherever necessary.

Q.1 Give specific answers. 12

a. Give two examples of hyperthermophiles.
b. What is bulking sludge? How does it form?
c. Explain the terms: i) Gall formation, ii) Necrosis.
d. What is aerosol? State its size.
e. Which conclusions were made by Horsfall and Dimond about definition of plant disease?
f. Name four psychrotolerant bacterial genera responsible for food spoilage.

Q.2 Explain/comment on any two of the following. 12

a. Different methods are used to measure carbon content removed during waste water treatment.
b. Sedimentation and precipitation techniques are suitable for enumeration of air microflora.
c. Some microbes have capacity to thrive in environments with alkaline pH.
Q3. Discuss any two of the following.
   a. Define coliforms. Explain various tests routinely performed to analyze potability of water.
   b. Discuss pathogen, symptoms and prevention strategies for "powdery mildew of wheat".
   c. Explain biochemistry and physiology of adaptation in thermophiles.

Q4 Write short notes on any two of the following.
   a. Methods for purification of drinking water.
   b. Plant-pathogen relationship.
   c. Kinds of microbes in air.