DMM-1632
M. Sc. (Bioscience) (Microbiology)
(Sem. IV) Examination
March / April - 2016
BIOS-(M)-403 : Environmental Biotechnology

Time : 3 Hours] [Total Marks : 70

Instructions :
(1) Fill up strictly the details of signs on your answer book.
Name of the Examination :
M. Sc. (BIOSCIENCE) (MICROBIOLOGY) (SEM. 4)
Name of the Subject :
BIOS-(M)-403 : ENVIRONMENTAL BIOTECHNOLOGY
Student's Signature

(2) Figures to the right indicate full marks.
(3) Draw neat and labeled diagrams wherever necessary.

1 Answer the following questions : (any two) 18
   (a) Explain the significance of microbial diversity.
   (b) Describe various applications of biosensors.
   (c) Explain the applications of nucleic acid probes in environmental microbiology.

2 Answer the following questions : (any two) 18
   (a) Write the notes on application of microorganisms in bioleaching of metals.
   (b) Elaborate on PAH degradation.
   (c) Describe the pathways and steps in biodegradation of lignocellulosic material.

DMM-1632 ] 1 [Contd...
3 Answer the following questions : (any two)
   (a) Elaborates various categories of plant growth promoting bacteria.
   (b) Discuss the plant-microbes association.
   (c) Describe the role and application of Mycorrhizae.

4 Attempt any two questions :
   (a) Discuss the microbial production and significance of siderophore.
   (b) Describes in details edible mushrooms.
   (c) Explain the Bacillus thurengiensis and Baculo viruse to control the insects.