AV-1812 Seat No._____

B. Sc. (Sem. IV) Examination

March / April - 2018

MI-204 : Microbiology

(Microbial Diversity) (Core Course)

Time : 3 Hours] [Total Marks : 70

PART - A

Multiple choice questions : 10

(1) The organisms have true nucleus, are called
  (A) Eukaryote
  (B) Prokaryote
  (C) Akaryocytes
  (D) None of the above

(2) Cyanobacteria had been important in the evolution of _____ gas on the earth
  (A) Hydrogen
  (B) Oxygen
  (C) Carbon dioxide
  (D) Methane

(3) An early attempt to see what kinds of organic molecules might have been produced on the early earth was carried out in 1953
  (A) Stanley L. Miller
  (B) Harold C. Urey
  (C) Both (A) & (B)
  (D) None of the above

(4) _____ are eukaryotic, spore bearing organisms that lacks chlorophyll

(A) Actinomyces

(B) Algae

(C) Protozoa

(D) Fungi

(5) Species richness within a local ecosystem is referred as _____

(A) Alpha diversity

(B) Beta diversity

(C) Gamma diversity

(D) Delta diversity

(6) Reproduction by Budding is common in _____

(A) Bacteria

(B) Yeast

(C) Mold

(D) Algae

(7) Halophilic bacteria do require high level of

(A) Hydrostatic Pressure

(B) Temperature

(C) Salt concentration

(D) Sugar concentration

(8) Pseudomurine is present in cell wall of

(A) E.coli

(B) Saccharomyces cerevisiae

(C) Bacillus cereus

(D) Archaebacteria

(9) Creutzfeldt–Jakob disease (CJD) is caused by
(A) Prion
(B) Virus
(C) Yeast
(D) Protozoa

(10) The_____ technique was invented by Kary B. Mullis in 1985
(A) Enrichment
(B) G+C%
(C) PCR
(D) Microarray

PART - B

Give the answer in short : (Any **Five**) **10**

(1) Explain the term : Biodiversity
(2) Explain the-term: Enrichment
(3) Give the example of cell wall less microorganism
(4) What is Lichens? Give an example.
(5) What is Species and Speciation?
(6) Major causes of Loss in biodiversity
(7) Full form of: TEM, SEM, RFLP, CLM

PART - C

Give the answer in brief : (Any **Four**) **16**

(1) Theories of origin of life
(2) General and Industrial significance of Fungi
(3) Application of Light microscopy for the biodiversity study.
(4) Enlist the major differences between Eubacteria and Archaeabacteria
(5) Notes on Chlamydia and Rickettsia
(6) Notes on prions

PART - D

Write short note on : (Any **Four**) 16

(1) Loss of Biodiversity

(2) Electron microscopy

(3) Cultural methods for Diversity assessment

(4) Origin of Life

(5) Diversity of Methanogens

(6) Method of cultivation of virus

PART - E

Give the answer in Detail : (Any **Three**) 18

(1) Values of Biodiversity

(2) Sexual reproduction among fungi

(3) Microbial Diversity as Index of Environmental change

(4) PCR and its application

(5) Metabolic diversity of bacteria
