DB-003-001633 Seat No. _____

Third Year B. Sc. (Sem. VI) (CBCS) Examination

April / May – 2015

Microbiology : Paper - MB - 603

(Environmental Science)

Faculty Code : 003

Subject Code : 001633

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (i) All question are compulsory.

(ii) The paper is divided in two sections.

(iii) No separate OMR sheet will be provided for Section-I.

(iv) Figures on right indicate marks.

SECTION - I

1 Multiple choice questions : **20**

(1) Which of the following is known as the 'Human development index' ?

(A) A stabilized population, increased longevity and an enhancement of income.

(B) A stabilized population, the long term conservation of biodiversity and the careful long-term use of natural resources.

(C) Increased longevity, an increase in knowledge and an enhancement of income.

(D) Increased longevity, an increase in knowledge and the long term conservation of biodiversity.

(2) Protected areas are part of ____.

(A) In situ conservation (B) Ex situ conservation

(C) Both (A) and (B) (D) None of above

(3) The term biodiversity refers to :

(A) Totality of species of a region

(B) Totality of ecosystem of a region

(C) Totality of genes of a region

(D) All of the above

(4) Which one of the following forests is more diverse ?

(A) Coniferous evergreen (B) Deciduous evergreen

(C) Tropical rain forest (D) Subtropical rain forest

(5) Integrated crop management includes :

(A) Use of crop rotation method

(B) Use of GMOs

(C) Use alternatives to inorganic fertilizers and pesticides

(D) Use of single crops

(6) Xerosere is :

(A) Type of succession in water

(B) Type of succession on earth

(C) Type of succession in ice

(D) Type of succession in sand and rock

(7) Pyramid of Biomass with grassland ecosystem :

(A) Upright (B) Inverted

(C) Both of above (D) None of above

(8) Edaphic factors of Ecosystem are :

(A) Type of abiotic factors

(B) Biotic factors

(C) Include only climatic factor

(D) (A) and (B)

(9) Septic tank used for waste water treatment is an ____ process.

(A) Aerated (B) Activated

(C) Anaerobic (D) None

(10) Which of the following is cause of deforestation ?

(A) Population increase (B) Industrialization

(C) Urbanization (D) All of above

(11) IPAS stands for :

(A) Integrated Protected Area System

(B) Integrated Plant Area for Protection

(C) Incorporated Protection Area System

(D) Incorportaed Plant Area for Protection

(12) Which of the following ecological pyramid is always upright?

(A) Energy pyramid (B) Pyramid of biomass

(C) Pyramid of numbers (D) Both (A) and (B)

(13) ____ is second order consumers.

(A) Herbivores (B) Carnivores

(C) Parasites (D) Detrivores

(14) Areas that are rich in species diversity are called ____ of diversity.

(A) National parks (B) Biogeographical areas

(C) Hotspots (D) Sanctuaries

(15) Environment impact assessment is :

(A) the study of impact of environment of proposed action like policy plan or project.

(B) a process of anticipating or establishing the changes in physical ecological and socio-economic component of the environment.

(C) Both of the above

(D) None of the above

(16) Indian Wild-Life (Protection) Act was framed in :

(A) 1970 (B) 1972

(C) 1971 (D) None of these

(17) Indian Air (Prevention and Control of Pollution) Act was framed in :

(A) 1980 (B) 1981

(C) 1982 (D) 1988

(18) What percent of fresh water on earth is available for human use ?

(A) Less than 1% (B) 50%

(C) 70% (D) 10%

(19) Full form of FAO is :

(A) Food and Agriculture Organisation of United Nations

(B) Forest and Agriculture Organisation

(C) Food and Agronomy Organisation

(D) None of the above

(20) Eutrophication causes reduction in :

(A) Dissolved Hydrogen

(B) Dissolved Oxygen

(C) Dissolved salts

(D) All of the above

SECTION - II

2 (a) Answer specifically : (any **three**) **3x2=6**

(1) Define renewable natural resources.

(2) What is ecosystem ?

(3) Define species diversity.

(4) What do you mean by noise pollution ?

(5) Define global warming.

(6) Define food web.

(b) Answer specifically : (any **three**) **3x3=9**

(1) Write a note on land resources.

(2) Enlist effects of mining.

(3) Write a brief note on reasons responsible for ozone depletion.

(4) Briefly explain the effects of marine pollution.

(5) Write a brief note on threats to biodiversity.

(6) Explain ecosystem degradation.

(c) Write short notes on : (any **two**) **2x5-10**

(1) Functions of ecosystem.

(2) Non-renewable resources.

(3) India as a mega diversity nation.

(4) Role of individuals in pollution protection.

(5) Environment impact assessment.

3 (a) Answer specifically : (any **three**) **3x2=6**

(1) Define ore.

(2) What are decomposers ?

(3) Define niche.

(4) What is Ecosystem diversity ?

(5) What is nuclear holocaust ?

(6) What is food chain ?

(b) Answer specifically : (any **three**) **3x3=9**

(1) Write a note on food security.

(2) Compare and contrast deforestation and aforestation.

(3) Explain briefly ecological succession.

(4) Briefly explain the control measures for combating air pollution.

(5) Write a brief note on climate change.

(6) Briefly explain energy flow in the ecosystem.

(c) Write short notes on : (any **two**) **2x5=10**

(1) Biodiversity conservation strategies

(2) Food resources

(3) Solid waste management

(4) Ecological pyramids

(5) Nuclear Hazards
