Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–1st / 2nd (SPFU) EXAMINATION– WINTER 2015

Subject Code: ENG003 **Date: 06/01/2016**

Subject Name: Ecology and Environment

Time: 10:30am to 01:00pm **Total Marks: 70**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks**

Section-I

Question No. 1 to 25 carry 1 mark and 26 to 30 carry 2 marks

Q-1 **Which one from the following is a reason for the environmental pollution**

(A) Population explosion (B) Industrialization
(C) Urbanization (D) All of these

Q-2 **Ozone layer is located in**

(A) Stratosphere (B) Mesosphere
(C) Troposphere (D) Thermosphere

Q-3 **The basic components of ecosystem are**

(A) Abiotic (B) Biotic
(C) Abiotic and Biotic (D) None of these

Q-4 **Green plants are**

(A) Autotrophs (B) Carnivores
(C) Hetrotropes (D) None of these

Q-5 **Which one from the following is a consumptive use of water**

(A) Irrigation use (B) Recreational use
(C) Navigational (D) All of these

Q-6 **The natural out flow of ground water at earth's surface is known as**

(A) Negative flow (B) Springs
(C) Stream (D) All of these

Q-7 **Which one from the following is not an effect of deforestation**

(A) Soil erosion (B) Increasing water table level
(C) Decrease in rainfall (D) Expansion of desert

Q-8 Which problem from the following is caused by an inability to absorb iron

(A) Marasmus (B) Pellagra
(C) Goiter (D) Anemia

Q-9 The deaths of infants per thousand birth are known as

(A) Birth rate (B) Infant Mortality
(C) mortality (D) Death Rate

Q-10 The scientific study of human population is known as

(A) Geography (B) Demography
(C) Calligraphy (D) Biography

Q-11 B.O.D. is

(A) Bio chemical Oxygen demand (B) Bio degradable oxygen demand
(C) Biological oxygen demand (D) Basic Oxygen Demand

Q-12 Which one from the following is not a physical parameter or water

(A) Turbidity (B) Colour
(C) Temperature (D) Ph

Q-13 Which one from the following is not a natural cause of air pollution

(A) Agricultural Activity (B) Forest fire
(C) Pollen grain (D) Dust storm

Q-14 Which one from the following is the least polluting fuel used in automobile

(A) Petrol (B) CNG
(C) Diesel (D) None of these

Q-15 Which one from the following is a water born dieses

(A) Malaria (B) Typhoid
(C) Dengue (D) AIDS

Q-16 Which one of the following is responsible for deterioration of Taj Mahal (marble)

(A) CO (B) CO_2
(C) SO_2 (D) N_2O

Q-17 The outer soil crust of earth is known as

(A) Hydro sphere (B) biosphere
(C) Lithosphere (D) None of these

Q-18 Which one from the following is a cause of land degradation

(A) Soil erosion (B) Desertification
(C) Urbanization (D) All of these

Q-19 Environmental noise pollution is measured in

(A) Decibel (B) Pascal
(C) Hertz (D) Newton

Q-20 **Non conventional energy source is**

(A) **Hydro power** **(B)** **Wind energy**
(C) **Solar energy** **(D)** **All of these**

Q-21 **It is the energy which lies embedded within the earth crust**

(A) **Tidal energy** **(B)** **Hydro power energy**
(C) **Geo thermal energy** **(D)** **All of these**

Q-22 **Acid rain occurs when pH of rain water is**

(A) **Less than 5.6** **(B)** **greater than 5.6**
(C) **Less than 6.6** **(D)** **Greater than 6.6**

Q-23 **The rise of water level in sea is due to**

(A) **Acid rain** **(B)** **deforestation**
(C) **Global Warming** **(D)** **None of these**

Q-24 **EIA stands fro**

(A) **Energy Impact Assessment** **(B)** **Environment Impact Assessment**
(C) **Environmental Integrated Assessment** **(D)** **None of these**

Q-25 **The institute constituted for proper management of environmental issues for sustainable development in Gujarat is called**

(A) **GPCB** **(B)** **GEMI**
(C) **GEC** **(D)** **GUIDE**

Q-26 **The study of individual organism or species which are associate together as a unit is known as**

(A) **ecology** **(B)** **Autecology**
(C) **synecology** **(D)** **biology**

Q-27 **Which air pollutant reduces the oxygen carrying capacity of the blood by combining with hemoglobin**

(A) **CO** **(B)** **CO_2**
(C) **SO_2** **(D)** **N_2O**

Q-28 **As per IS specification the desirable limits for pH in drinking water is**

(A) **4.5 to 6.5** **(B)** **6.5 to 8.5**
(C) **8.5 to 10.5** **(D)** **10.5 to 12.5**

Q-29 **A disease called minamata occurs due to the consumption of fish which is contaminated with _____**

(A) **Ethyl Mercury** **(B)** **Ethylene mercury**
(C) **Methene mercury** **(D)** **Methyl mercury**

Q-30 **_____ are normally used as indicator organism for M.P.N test of water**

(A) **leptospirae** **(B)** **salmonella typhi**

(C) **E-coli** **(D)** **Entamoeba histolytica**

Section-2

Instruction:

1. **Attempt any five questions**
2. **Each question carries 7 marks**
3. **Assume suitable data if required**

Q-1 **Explain various components of environment**

Q-2 **Write a short note on (1) carbon cycle (2) Oxygen cycle**

Q-3 **What is eutrophication? What are the causes, effects and preventive measures of eurtophication?**

Q-4 **What is air pollution? What are the effects of air pollution on human health**

Q-5 **What is land degradation? Explain the causes of land degradation**

Q-6 **What is acid rain? Explain the causes and effects of acid rain**

Q-7 **What is GPCG? Write the mission and the objectives of GPCB**