**TU/ CDOE**

**TEZPUR UNIVERSITY**

**SEMESTER END EXAMINATION (AUTUMN) 2020**

**DEM 101: ENVIRONMENT: BASIC UNDERSTANDING**

Time: **3 Hours** Total Marks: **70**

*The figures in the right-hand margin indicate marks for the individual question.*

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1. Fill in the blanks with correct answer or appropriate words. 1x10=10

1. Radiant energy is trapped by green plants during the \_\_\_\_\_\_\_\_\_\_\_\_\_and is converted to chemical energy.
2. Indian standard for ambient noise level for \_\_\_\_\_\_\_area during nighttime is 45 dB (A).
3. \_\_\_\_\_\_\_\_\_\_\_\_\_are the two most abundant gases in atmosphere.
4. Proteins which are essential for living organisms are made up of \_\_\_\_\_\_ .
5. \_\_\_\_\_\_\_\_came out in 1987 when United Nations reached an agreement in Montreal, Canada, to scale CFC production.
6. The association of a fungus and the roots of a tree is an example of symbiosis and known as \_\_\_\_\_\_\_ .
7. \_\_\_\_\_\_\_\_\_\_\_is an oxidizing smog, characterized by brown, hazy fumes which causes irritation of eyes and lungs.
8. CO2 is released into the atmosphere when \_\_\_\_\_\_\_\_is broken down or decomposed by decomposers.
9. The largest amount of carbon on Earth is stored in \_\_\_\_\_within the Earth’s crust.
10. \_\_\_\_\_\_\_concept addresses the problems of overuse and over-dependence on chemical pesticides and their subsequent undesirable consequences.

2. State True or False: 1x10= 10

1. An ecosystem maintains a biological equilibrium between the different components and is referred as a homeostasis.
2. Sulfur is released into the atmosphere through the burning of fossil fuels and is a primary greenhouse gas.

**P.T.O.**

1. *Resistance* is the ability of a community to recover after facing a disturbance or displacement.
2. Species diversity has two components: species richness and species evenness.
3. The graphical representation of Kuznet’s hypothesis and environmental kuznet’s curve is an inverted U-shaped curve.
4. Pyramid of biomass for aquatic ecosystem may be upright or inverted pyramid.
5. The rate at which food is manufactured by the producers in unit area and in unit time is called production.
6. Differences between grazing and detritus food chains lie primarily in the source of energy.
7. Waterfalls are formed due to differential erosion of hard and soft rocks.
8. Atmospheric pressure always decreases with increasing elevation above the earth’s surface because there are fewer air molecules above.

3. Differentiate between the following: 4x5= 20

1. El niño and the Southern oscillation
2. Bhopal disaster and Chernobyl disaster
3. Significance of Grazing food chain and Detritus food chain
4. Montreal Protocol and Kyoto Protocol
5. Food security and Ecological security

4. Discuss the factors that influence change in population size? 3

5. Why there is need to conduct an EIA for major developmental

projects? 3

6. What are the three pillars of sustainability? Explain the aim of

sustainability. 1+3=4

7. Explain N2 cycle with diagrammatic representation. 4

8. Describe how the biotic and abiotic components of the ecosystem are

interrelated and influence each other to main a balance ecosystem. 5

9. Briefly describe the causes and consequences of acid rain. 5

10. What are the major aspects of human activities responsible for

ecosystem degradation? Discuss the steps involved in eco

restoration of any degraded ecosystem. 3+3=6

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