**TU/CDOE**

**TEZPUR UNIVERSITY**

**SEMESTER END EXAMINATION (AUT 21 & SPR 22)**

**DIPEVMD / DEM 101: THE 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 appropriate or correct word(s).

**1x10=10**

i) …………………… is a geologically recent deposit of silt which is usually yellowish or brown in color and forms fertile topsoil lie.

ii) ……………………. is an anaerobic process that occurs mostly in soils and sediments and anoxic zones in lakes and oceans.

iii) When the temperature of the air just above the ground becomes colder than the air above it due to radiational cooling of the ground surface is known as …………………………..

iv) On mid-night of 3rd December 1984 is a dreadful incident occurred at Bhopal, India due to the leakage of ………………………….

v) …………………………. is characterised by brown, hazy fumes which causes irritation of eyes and lungs, plant damge and rubber cracking.

vi) Algal blooming, excessive aquatic macrophyte growth and oxygen depletion are associated with ………………………………..

vii) Minamata disease is a ……………………………. with neurological symptoms and caused by consumption of fish and shellfish.

viii) ………………………. refers to unauthorized appropriation of knowledge and genetic resources of organisms that occurs naturally and belongs to a particular community by the process of patent.

P.T.O

ix) The ozone shield formed by the ……………………………… absorbs about 99% of UV radiation and prevents UV radiation from reaching earth’s surface.

x) ………………………….. was an international treaty to reduce the onset of global warming by reducing greenhouse gas concentrations in the atmosphere.

2. Write ‘True’ or ‘False’ for the following statements.

**1x10=10**

1. Star dune is a pyramidal peak with three or more arms, and it do not migrate but grow vertically.

ii) The ecosystem services provided by ecosystems are products of the complex interactions among different species and with the non-living components of the environment.

iii) Pyramid of number is always upright because, there is no 100% transfer of energy from one trophic level to another trophic level as per Lindemann's ten percent rule.

iv) The four pillars of sustainability are human, social, economic and environmental.

v) Decentralisation hinder decisions making process and inappropriate with respect to the needs and aspirations of the local people.

vi) Environmental Protection Agency is a systematic process that examines the possible environmental consequences of development actions, in advance.

vii)Non-renewable resources are resources that exits in limited amount and may deplete faster than renewable resources.

viii) The atmosphere that extends up to approx. 10,000 km above the earth's surfaces saves life on earth from the hostile environment of outer space.

P.T.O

ix) Artificial satellites used for communication, weather monitoring and research move around or stationed are found in the stratosphere.

x) Mushroom rocks is the rocks having narrow upper part and broad base formed due to abrasion at base.

3.Distinguished between the following. **4x5=20**

1. Environmental Kuznet’s Curve and Pollution Haven Hypothesis
2. Food security and Ecological security
3. Exhaustible and Inexhaustible natural resources
4. Trademarks and Copyrights
5. Food chain and Food web

4. What is ecological pyramids? Explain the three types of ecological pyramids. **1+3=4**

5. What is biogeochemical cycle? Describe nitrogen cycle. **1+3=4**

6. How does solar energy influence energy radiation budget? Explain with the help of a neat diagram. **2+2=4**

7. Briefly describe the causes and harmful impacts of ozone layer depletion. **4**

8. Discuss the municipal solid waste management and its impact on land resource. **4**

9. What is population explosion? How does increased human population affects the environment. Discuss in detail. **1+4=5**

10. How do monsoons affect the Indian weather system? What is the role of jet streams in tropical monsoons? **2+3=5**

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