**TU/ CODL**

**TEZPUR UNIVERSITY**

**SEMESTER END EXAMINATION (AUTUMN) 2019**

**DRE 101: ENERGY AND ENVIRONMENT**

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

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

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1. Justify the following statements 2×7=14

1. Modern biomass and traditional biomass vary greatly in terms of their impact on users
2. Ecosystems have many levels of organization and operate hierarchically
3. Parties to the UNFCCC have common but differentiated responsibilities
4. Coal and petroleum resources are evolved from common feedstocks but through different processes
5. Energy storage is a major area of concern for development of future energy systems
6. Biomass energy may have no net emission of CO2 if grown sustainably
7. Three levels of organisms regulate the flow of energy in ecosystems

2. Write briefly on **any four** of the following: 5×4=20

1. Agricultural wastes and residues as a source of bio-energy
2. Renewable Energy Technology and economic activities
3. Functional attributes of an ecosystem
4. Man-made causes of global warming
5. National Wind-Solar Hybrid Policy

**P.T.O.**

3. Answer **any three** of the following: 12×3=36

1. “Energy is one of the most important building blocks in human development, and as such, acts as a key factor in determining the socio-economic and human welfare of a country”- Discuss how renewable energy can contribute to i) creating new employment opportunities, ii) poverty alleviation and iii) meeting United Nations Millennium Development Goals.
2. “While agriculture is a small emitter of the most prevalent greenhouse gas, it is important in the total picture”, what are the major GHGs emitted from agricultural practices, elaborate different mitigation strategies.
3. Discuss the sources of air and water pollution and briefly explain their effects.
4. Discuss the Pollution Control Legislations in India.

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