**TU/ CODL**

**TEZPUR UNIVERSITY**

**SEMESTER END EXAMINATION (AUTUMN) 2017**

**DRE101: 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. **Choose the correct answer**  **1×6=6**
2. Which biomass feedstock has the least environmental threat?
3. Soyabean b) Palm oil

c) Agricultural residues d) Corn

ii) \_\_\_\_\_\_\_\_\_\_\_\_\_ digestion is the decomposition of organic matter

in the absence of air by bacteria.

a) Aerobic b) Fermentative

c) Anaerobic d) all of the above

iii) The major source of urban air pollution is

a) Thermal power plants b) Vehicles

c) Industries d) Households

iv) A network of food chain in an ecosystem constitutes

a) Ecological niche b) Food Pyramid

c) Food web d) Food energy

v) The major constituent of Biogas and Natural gas is/are

a) Methane (BG); Ethane (NG) b) Ethane (BG & NG)

c) Propane (BG & NG) d) None of the above

vi) At present India’s energy mix is predominantly dependent on

a) coal b) petroleum

c) biomass d) solar

**P.T.O**

1. **Answer the following short questions:** **2×4=8**
2. Name the major sources of Suspended Particulate Matter (SPM)
3. Name two prominent ecosystems of north-east India
4. Name two Green House Gas (GHGs) emitted by agricultural practices
5. Name two initiatives/schemes of Government of India on Renewable Energy & Energy Management
6. **Write briefly on the following (any four)** **5×4=20**
7. Municipal solid wastes as a renewable source of energy
8. Challenges to sustainable energy development
9. Ecological hierarchy
10. Environmental problems caused by opencast mining of coal in north-east India
11. Land cover and land use change as a contributor to climate change

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

1. What do you mean by ecosystem? Cite three ecosystems that you have observed. Elaborate the components of an ecosystem.
2. Discuss the impact caused by the use of conventional fuel on environment. Elaborate the major environmental concerns of conventional fuel extraction.
3. Discuss how innovation in future energy systems and clean technology in the Heat, electricity, and transport sectors be useful in addressing climate change and energy security issues?
4. “Renewable energy use is one of the central issues in sustainable development”- discuss in the light of socio-economic impacts of renewable Energy utilization.

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