

# C.U.SHAH UNIVERSITY

## Winter Examination-2018

**Subject Name :** Environment Science and Energy Management

**Subject Code :** 2TE01ESE1      **Branch :** Diploma (All)

**Semester :** 1    **Date :** 30/11/2018    **Time :** 02:30 To 05:30    **Marks :** 70

Instructions:

- (1) Use of programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

- Q-1      Attempt the following questions:      (14)**
- a)** The 'world environment day' is celebrated on      **01**  
(a) 15<sup>th</sup> June    (b) 5<sup>th</sup> June    (c) 5<sup>th</sup> January    (d) 15<sup>th</sup> February
  - b)** Environment has two major components      **01**  
(a) Plants and animals    (b) Physical and chemical  
(c) Natural and artificial    (d) Biotic and abiotic
  - c)** Elements of environment are      **01**  
(a) Nitrogen, Carbon dioxide, Oxygen  
(b) Nitrogen, Oxygen, Ozone  
(c) Oxygen, Ozone, Carbon dioxide  
(d) Lithosphere, Atmosphere, Hydrosphere, Biosphere
  - d)** Lowest layer of atmosphere is called      **01**  
(a) Thermosphere    (b) Troposphere    (c) Stratosphere    (d) Mesosphere
  - e)** The biggest pollutant receptor or sink on the earth is      **01**  
(a) Biosphere    (b) Atmosphere    (c) Lithosphere    (d) Hydrosphere
  - f)** Most stable ecosystem is      **01**  
(a) Forest    (b) Desert    (c) Ocean    (d) Mountain
  - g)** The shape of the pyramid of biomass for a pond or any ecosystem is      **01**  
(a) Inverted    (b) Up right    (c) Linear    (d) Not certain
  - h)** Which of the following is not a renewable resource?      **01**  
(a) Coal    (b) Wind    (c) Water    (d) Geothermal energy
  - i)** All sources of water such as the oceans, rivers, lakes and underground sources together constitute.      **01**  
(a) Hydrosphere    (b) Atmosphere    (c) Lithosphere    (d) Bio-sphere
  - j)** Ozone layer is present in      **01**  
(a) Troposphere    (b) Stratosphere    (c) Mesosphere    (d) Thermosphere
  - k)** Which of the following is not a solution for global warming?      **01**  
(a) Reducing fossil fuel consumption    (b) Planting more trees  
(c) Deforestation    (d) None of the above
  - l)** How is rotor axis in savonius type window mill?      **01**  
(a) Horizontal    (b) Inclined    (c) Vertical    (d) connected to nessel
  - m)** What process is charcoal made by?      **01**  
(a) Anaerobic process    (b) pyrolysis    (c) Hydrolysis    (d) Chemical titanium
  - n)** What is the highest percentage of gas in biogas formation?      **01**  
(a) Carbon dioxide    (b) Nitrogen    (c) Oxygen    (d) Methane gas



**Attempt any four questions from Q-2 to Q-8**

- Q-2 Attempt all questions (14)**
- (a) Write importance of environmental education. **05**
  - (b) Define environment also enlist component parts of environment and describe any one in brief. **05**
  - (c) Explain hydrological cycle with sketch. **04**
- Q-3 Attempt all questions (14)**
- (a) Explain food chain and web with example of it. **07**
  - (b) Classify ecosystem also explain components of ecosystem. **07**
- Q-4 Attempt all questions (14)**
- (a) What is deforestation? Describe its causes and ill effects. **07**
  - (b) Explain remote sensing. **07**
- Q-5 Attempt all questions (14)**
- (a) What is acid rain? Explain adverse effect of acid rain. **05**
  - (b) Enlist and explain various green-house gases. **05**
  - (c) Describe various effects of global warming. **04**
- Q-6 Attempt all questions (14)**
- (a) Write short note: Renewable sources of energy. **05**
  - (b) Enlist various steps for fuel saving in boiler. **05**
  - (c) Compare conventional and non-conventional sources of energy. **04**
- Q-7 Attempt all questions (14)**
- (a) Explain solar water heating with diagram of solar water heater. **07**
  - (b) What is bio-mass energy? Explain its advantages and disadvantages. **07**
- Q-8 Attempt all questions (14)**
- (a) Explain wind energy with its use and limitation. **07**
  - (b) Describe various steps for energy conservation in transportation. **07**

