## **C.U.SHAH UNIVERSITY Summer Examination-2016**

Subject Name : Environmental Engineering & Management

**Subject Code :** 4TE01EEM2 Branch : B. Tech(Civil)

**Time :** 10:30 To 01:30 Semester : 1 **Date :** 02/05/2016 **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  |            | Define the following terms:   | (14) |  |  |
|--|------------|---|------|--|--|
|  | a)         | Environment   | 01   |  |  |
|  | b)         | Evaporation   | 01   |  |  |
|  | c)         | Atmosphere  | 01   |  |  |
|  | d)         | Ecological pyramid  | 01   |  |  |
|  | e)         | Autotrophs  | 01   |  |  |
|  | f)         | Symbiosis   | 01   |  |  |
|  | <b>g</b> ) | Renewable resources   | 01   |  |  |
|  | h)         | Thermal pollution   | 01   |  |  |
|  | i)         | Pollutant   | 01   |  |  |
|  | <b>j</b> ) | In-situ conservation  | 01   |  |  |
|  | k)         | Flora and fauna   | 01   |  |  |
|  | l)         | Abiotic components  | 01   |  |  |
|  | m)         | Ecological succession   | 01   |  |  |
|  | n)         | Heterotrophs  | 01   |  |  |
| Attempt any four questions from Q-2 to Q-8 |            |   |      |  |  |
| Q-2  |            | Attempt all questions   | (14) |  |  |
|  | (a)        | What is the role of environmental engineer?                                 | 05   |  |  |
|  | (b)        | Define water cycle and differentiate between precipitation and evaporation. | 05   |  |  |
|  | (c)        | Differentiate between: Deforestation and Desertification.                   | 04   |  |  |
| Q-3  |            | Attempt all questions   | (14) |  |  |
|  | (a)        | Explain the concept of energy flow in an ecosystem.                         | 05   |  |  |
|  | (b)        | Write a short notes on ecosystem.   | 05   |  |  |
|  | (c)        | Differentiate between degradable and non-degradable pollutants.             | 04   |  |  |
| Q-4  |            | Attempt all questions   | (14) |  |  |
|  | (a)        | What is biogeochemical cycle? Explain nitrogen cycle with neat sketch.      | 05   |  |  |
|  | (b)        | What is biome? Enlist different types of biome and explain any two.         | 05   |  |  |
|  | (c)        | Differentiate between: ecology and ecosystem.                               | 04   |  |  |

(c) Differentiate between: ecology and ecosystem.

## Page 1 || 2



| Q-5 | (a)<br>(b) | Attempt all questions<br>Enlist various types of ecosystem. Explain grassland ecosystem in detail.<br>Write in detail about the mineral resources, its uses and exploitation, its<br>environmental effects of extracting and using mineral resources. | ( <b>14</b> )<br>07<br>07 |
|-----|------------|---|---------------------------|
| Q-6 |            | Attempt all questions   | (14)                      |
|     | (a)        | Define water pollution and describe sources, effects and control measures of water pollution.   | 07                        |
|     | (b)        | Define the terms Biodiversity and its conservation and discuss genetic, species and ecosystem diversity in detail.  | 07                        |
| Q-7 |            | Attempt all questions   | (14)                      |
|     | (a)        | Explain the In-situ and Ex-situ conservation of biodiversity. Discuss India's mega-diverse biodiversity.  | 07                        |
|     | (b)        | Write the causes, effect and control measures of air pollution.   | 07                        |
| Q-8 |            | Attempt all questions   | (14)                      |
|     | (a)        | Define food chain and discuss different tropical levels of it.  | 07                        |
|     | (b)        | Explain in detail the pyramid of numbers and pyramid of biomass.  | 07                        |

Page 2 || 2

