

# C.U.SHAH UNIVERSITY

## Winter Examination-2015

**Subject Name :** Environmental Engineering & Management

**Subject Code :** 4TE01EEM2

**Branch :** B.Tech(All)

**Semester :** 1

**Date :** 11/12/2015

**Time :** 10:30 To 01:30

**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)	What is environmental degradation?	01
b)	What are green-house effects?	01
c)	What is eutrophication?	01
d)	What is symbiosis?	01
e)	What is Autotrophs?	01
f)	What is tropic level?	01
g)	Percentage of Argon by volume in atmosphere is (A) 78 % (B) 21 % (C) 0.03 % (D) 0.93 %	01
h)	Effect of over exposure to ozone on human being if one of the following (A) Affects respiratory system and lungs (B) Brain tumor (C) Skin disease (D) Hair fall	01
i)	The rain is generally termed as acidic if pH value of rain water falls below (A) 3 (B) 5 (C) 7 (D) 8	01
j)	Standard EDTA (ethylene diamine tetra acetic acid) solution is used to determine the (A) hardness in water (B) turbidity in water (C) dissolved oxygen in water (D) residual chlorine in water	01
k)	BOD in portable water may be (A) 0 (B) 5 (C) 10 (D) none	01
l)	Which of the following is not a water borne disease? (A) dysentery (B) cholera (C) typhoid (D) malaria	01
m)	In Air pollution RSPM stands for (A) reversible soluble particulate material (B) reflected suspended poor matter (C) respirable suspended particulate matter (D) retained suspended packed material	01



- n) Consider four common air pollutants found in urban environments, NO, SO<sub>2</sub>, Soot and O<sub>3</sub>. Among these which one is the secondary air pollutant?  
(A) O<sub>3</sub> (B) NO (C) SO<sub>2</sub> (D) Soot 01

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

- Q-2 Attempt all questions (14)**
- (a) What is environmental study? Explain the importance of environmental studies. 05
  - (b) Explain the concept of Energy flow in an ecosystem. 05
  - (c) Differentiate between: Nitrogen fixation and de-nitrification 04
- Q-3 Attempt all questions (14)**
- (a) Write short note on pond ecosystem. 05
  - (b) Define following terms: 05
    - (i) pollution, (ii) pollutant (iii) smog, (iv) point source, (v) soil erosion.
  - (c) Differentiate between: ecology and ecosystem. 04
- Q-4 Attempt all questions (14)**
- (a) What is biogeochemical cycle? Explain Nitrogen cycle with neat sketch. 07
  - (b) What do you mean by food chain? Explain the types of food chain. 07
- Q-5 Attempt all questions (14)**
- (a) Explain in detail pyramid of numbers and pyramid of biomass. 07
  - (b) What is the consequence of deforestation? How can you conserve forest? 07
- Q-6 Attempt all questions (14)**
- (a) What are the minerals? Enlist principal minerals of India. What are the effects on environment due to extraction of mineral resources? 07
  - (b) Define water pollution. Describe sources, effects and control measures of water pollution. 07
- Q-7 Attempt all questions (14)**
- (a) What is global warming? What are the impacts of global warming? Which are the measures to reduce global warming? 07
  - (b) What do you understand by 'Hot Spots of Biodiversity'? Name and briefly describe the two hotspots of biodiversity that extend into India. 07
- Q-8 Attempt all questions (14)**
- (a) Write Short note on ozone layer depletion. 05
  - (b) How do you justify India as a mega-diversity nation? Explain. 05
  - (c) Explain Hydrological cycle with neat sketch. 04

