

# P P SAVANI UNIVERSITY

Second Semester of B. Tech. Examination

May 2019

SECV1010 Environmental Sciences

23.05.2019, Thursday

Time: 12:30 p.m. To 03:00 p.m.

Maximum Marks: 60

## Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

## SECTION - I

- Q - 1** Define the following (Any Five) [05]
- (i) Ecology
  - (ii) Eco-system
  - (iii) Species
  - (iv) Population
  - (v) Community
  - (vi) Biomes
- Q - 2 (a)** Define environment and explain various Physical components of Environment. [05]
- Q - 2 (b)** Define Eco-system and explain characteristics and functions of eco-system [05]
- OR
- Q - 2 (a)** Explain impact of technology on environment. [05]
- Q - 2 (b)** Define Bio-geo-chemical cycles and explain hydrological cycle in detail [05]
- Q - 3 (a)** Explain following ecological pyramids with their relative advantages & disadvantages. [05]
- a) Pyramid of energy
  - b) Pyramid of number
- Q - 3 (b)** What are the causes of land degradation? Write solutions for the same. [05]
- OR
- Q - 3 (a)** Explain interrelationships between components of environments in detail with diagram. [05]
- Q - 3 (b)** Write down use, advantages and disadvantages of following energy resources. [05]
- a) Solar Energy
  - b) Wind Energy
- Q - 4** Attempt any one [05]
- (i) Explain non-renewable Energy resources in detail with advantages and disadvantages.
  - (ii) Define water scarcity. What are the reasons and solutions for water scarcity.

## SECTION - II

- Q - 1** Answer the following. (Any Five) [05]
- (i) What is Bio-magnification?
  - (ii) What is a difference between Global warming and climate change?
  - (iii) What is a Dry deposition?
  - (iv) Define Sustainable development.
  - (v) What is a difference between Over population and Population Explosion.
  - (vi) What is a function of a GPCB?
- Q - 2 (a)** Explain in detail Point sources and non-point sources of water pollution. [05]
- Q - 2 (b)** Write down a detail note on Climate change. What are the reasons and effects of the climate [05]

change?

OR

- Q - 2 (a) Explain land degradation with factors causing, Effects and solutions [05]  
Q - 2 (b) Explain in detail Ozone layer depletion. What are the reasons and effects for the same. [05]
- Q - 3 (a) Define Urbanization. What are the Environmental, Social and Economical problems due to Urbanization? [05]  
Q - 3 (b) Define over population and the reasons for the over population [05]
- OR
- Q - 3(a) Explain in detail Demographic Transition theory. [05]  
Q - 3(b) What are the Roles of different NGOS in improving environmental awareness? [05]
- Q - 4 **Write a short note on the following (Any two).** [05]  
(i) Nuclear accident and Holocaust.  
(ii) Sustainable development.  
(iii) Eutrophication.

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