C. U. SHAH UNIVERSITY
Winter Examination-2019

Subject Name : Environmental Engineering

Subject Code : 4TE05ENE1   **Branch: B.Tech (Civil)**

Semester : 5   **Date : 25/11/2019**   **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 air pollutant?	01
	b)	Enlist methods of disposal of hazardous waste	01
	c)	Define Toxicity	01
	d)	Define Ecology	01
	e)	What do you mean by Sustainable development?	01
	f)	Define pH	01
	g)	Define population equivalent	01
	h)	Differentiate Sound and Noise	01
	i)	Define Lithosphere	01
	j)	Enlist Water Borne Disease	01
	k)	Give disadvantages of Non Renewable Energy Sources	01
	l)	Enlist Objectives of Water Treatment Process	01
	m)	Define Leachate	01
	n)	What is meant by Mortality Rate?	01

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

Q-2		**Attempt all questions**	**(14)**
	a)	Write a short note on Effects and control of noise pollution	**05**
	b)	Discuss the socioeconomic measures for pollution control	**05**
	c)	What do you understand by the word 'Integrated Pest Management (IPM)'?	**04**
Q-3		**Attempt all questions**	**(14)**
	a)	Explain Organometallic Compounds in the Environment.	**04**
	b)	What are adverse effects of pesticides?	**04**
	c)	Enlist different physical and chemical characteristics of water and discuss in brief.	**06**
Q-4		**Attempt all questions**	**(14)**
	a)	Explain in brief cyclone separators with its advantages and disadvantages.	**04**
	b)	Which devices are used to control the emission of particulate pollutants? Explain gravitational settling tank.	**06**

c)	Explain in brief coagulation-flocculation	**04**
Q-5	**Attempt all questions**	**(14)**
a)	The following data have been noted from the census department.	**06**

Year	Population
1950	90,900
1960	1,80,800
1970	2,90,700
1980	5,13,400
1990	9,11,600
2000	15,75,500
2010	21,42,300

Calculate probable population in the year 2030 using Incremental increase method.

b)	Explain the effect of air pollution on men, material and animals.	**06**
c)	Give 2 examples of Renewable and Non Renewable Energy Resources each	**02**
Q-6	**Attempt all questions**	**(14)**
a)	Give IS standard for drinking water in India.	**07**
b)	Explain in brief various disposal techniques of treated wastewater and explain with sketch the DO sag curve.	**07**
Q-7	**Attempt all questions**	**(14)**
a)	Describe the flow diagram of solid waste management indicating their all functional elements.	**08**
b)	What is meant by Agrochemicals?	**03**
c)	Write short note on Sewage sickness	**03**
Q-8	**Attempt all questions**	**(14)**
a)	What is meant by Eutrophication? How to control it?	**04**
b)	Explain i) Screening ii) Grit chamber iii) Sedimentation	**06**
c)	Explain the possible contributions of individuals towards energy conservation.	**04**