

C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name: Environmental Engineering

Subject Code: 4TE05ENE1

Branch: B.Tech (Civil)

Semester: 5

Date: 31/03/2018

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)

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|----|--|----|
| a) | What are protozoa? | 01 |
| b) | Define algae. | 01 |
| c) | What is lithosphere? | 01 |
| d) | What is air pollution? | 01 |
| e) | Define noise pollution. | 01 |
| f) | Define TOC. | 01 |
| g) | What is relative stability of sewage effluent? | 01 |
| h) | Define putrefaction. | 01 |
| i) | Define leach ate. | 01 |
| j) | Define emissions. | 01 |
| k) | What is disinfection? | 01 |
| l) | Define toxicity. | 01 |
| m) | What is geothermal energy? | 01 |
| n) | What is sustainable development? | 01 |

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

Q-2 Attempt all questions (14)

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|-----|--|----|
| (a) | What are pathogens? Enlist some of the major water borne diseases. | 05 |
| (b) | Explain the role of microorganism in the environment. | 05 |
| (c) | Differentiate between sound and noise. | 04 |

Q-3 Attempt all questions (14)

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|-----|--|----|
| (a) | Explain different impurities in water and describe different water borne diseases with control measures. | 07 |
| (b) | The following data have been noted from the census department: | 07 |

Year	Population
1980	25000
1990	28000
2000	34000
2010	42000

Forecast the population of a town after two decades by means of geometrical increase method.

Q-4 Attempt all questions (14)

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|-----|---|----|
| (a) | Enlist different air pollutants with their sources and effects. | 07 |
|-----|---|----|



	(b) Explain the different measures which can be used to control air pollution.	07
Q-5	Attempt all questions	(14)
	(a) Explain the different noise rating systems.	07
	(b) Differentiate between aerobic and anaerobic decomposition of wastewater.	07
Q-6	Attempt all questions	(14)
	(a) Discuss FCIPT plasma pyrolysis technology.	07
	(b) Enlist the methods used for disinfection and explain any one in detail.	07
Q-7	Attempt all questions	(14)
	(a) Explain theory of sedimentation with help of examples..	07
	(b) Compare the various types of energy with respect to its suitability for Indian conditions.	07
Q-8	Attempt all questions	(14)
	(a) If the period of incubation is 10 days at 20°C in the relative conductivity test of sewage, calculate the percentage of relative stability.	05
	(b) Explain the adverse environmental impact of modern agriculture.	05
	(c) Distinguish between rubbish and garbage.	04

