Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– IV (New) EXAMINATION – WINTER 2019

Subject Code: 2141308   **Date: 16/12/2019**

Subject Name: Environmental Resources

Time: 10:30 AM TO 01:00 PM   **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks**.

Q.1	**(a)**	Define "Social Forestry" & explain objective of social forestry.	**03**
	(b)	Highlight the advantages & disadvantages of wind energy.	**04**
	(c)	Enlist Green House Gases (GHGs) & explain sources responsible for emission of each GHG gases.	**07**
Q.2	**(a)**	Define the terms: 1. Median Age 2. Population density 3. Population dynamics	**03**
	(b)	Write down difference between Weather & Climate.	**04**
	(c)	Predict the population of an old & large city for the year 2031, 20141 & 2051, whose development is considerably constant for decades. The population data are as follows:	**07**

Year	1991	2001	2011	2021
Population	20,840	35,924	42,670	51,720

OR

	(c)	The population of Blue city was 140,000 in year 1990. The doubling time for the population was observed to be 25 years. Predict the population in year 2040.	**07**
Q.3	**(a)**	Write down the International steps taken for Climate change.	**03**
	(b)	Explain how the forests act as " air – purifiers" and as " carbon storage tanks"	**04**
	(c)	Give the difference between Malthusian theory & Optimum population theory.	**07**

OR

Q.3	**(a)**	Define carbon foot print & write down types of carbon foot print.	**03**
	(b)	Compare hydro power & solar energy as alternative energy resource.	**04**
	(c)	Name the various Ozone depleting substances & ozone depletion phenomena.	**07**
Q.4	**(a)**	Suggest few steps for water conservation in industry, home & agricultural.	**03**
	(b)	Enlist steps for biodiversity conservation & explain any one step in detail.	**04**
	(c)	Define Clean Development Mechanisms (CDM) & explain its goals with suitable examples.	**07**

OR

Q.4	**(a)**	Draw a neat sketch of "Green House Effect Concept".	**03**
	(b)	Explain the concept of environmental carrying capacity.	**04**
	(c)	Enlist & explain the reasons for declination of Biodiversity.	**07**
Q.5	**(a)**	Define the terms: **1**. Afforestation **2.** Deforestation **3.** Reforestation	**03**
	(b)	Enlist various forms of energy & explain Kinetic & Potential energy.	**04**
	(c)	Write a short note on effects of acid rain.	**07**

OR

Q.5	**(a)**	Enlist various factors that limits to food production.	**03**
	(b)	Explain effects on environment while using coal as conventional source of energy.	**04**
	(c)	Enlist various population forecasting methods & explain incremental increase method in detail.	**07**

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