| Seat No.: | Enrolment No |
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER- 1st / 2nd (SPFU)• REMEDIAL EXAMINATION – SUMMER 2015

| Subject Code: ENG003 | Date: 12/06/2015 |
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Subject Name: Ecology & Environment

Time: 10.30AM-01.00PM Total Marks: 70

Instructions:

- 1. Attempt all questions in section one i.e. objective section (MCQs).
- 2. Attempt any five questions in section two i.e. subjective section (LQs).
- 3. Make suitable assumptions wherever necessary.
- 4. Figures to the right indicate full marks.

SECTION 1 : OBJECTIVE SECTION (MCQs)

| Q.1 | Which of the following is a biodegradable waste? | | 01 |
|------|---|--|----|
| | (a) Paper (c) Glass | (b) Polythene(d) Plastics | |
| Q.2 | Which of the following is responsible for glo (a) Chloro-flouro carbons (c) Methane | ` ' | 01 |
| Q.3 | What includes in a biotic environment. (a) Producers (c) Decomposers | (b) Consumers(d) All of these | 01 |
| Q.4 | What in the below is not included in an abio (a) Air(c) Soil | tic environment (b) Plants (d) Water | 01 |
| Q.5 | When trees are cut, amount of oxygen (a) Increases (c) Remains same | (b) Decreases(d) Cannot predict | 01 |
| Q.6 | Main source of energy in environment is (a) Fire (c) Sun | (b) Moon (d) Stars | 01 |
| Q.7 | Animals who can live in water as well as on (a) Aquatic animals(c) Terrestrial animals | land are called (b) Amphibious animals (d) None of these | 01 |
| Q.8 | During the processes of photosynthesis tree (a) Oxygen(c) Carbon Dioxide | s produce (b) Nitrogen (d) Carbon monoxide | 01 |
| Q.9 | What is the main reason of desertification? (a) Deforestation(c) Mining | (b) Overgrazing(d) All of these | 01 |
| Q.10 | Air pollutants mixing up with rain can cause (a) High acidity (c) Low acidity | (b) Neutral conditions (d) None of these | 01 |

| Q.11 | Thermal pollution can be controlled by (a) Spray ponds(c) Cooling towers | (b) Cooling ponds(d) All of these | 01 |
|------|--|---|----|
| Q.12 | Rainwater harvesting has following advant (a) Avoids flooding of roads (c) Reduces run-off loss | ages (b) Recharges ground water (d) All of these | 01 |
| Q.13 | Forests prevents soil erosion by binding so (a) Stems (c) Roots | il particles in their (b) Leaves (d) Buds | 01 |
| Q.14 | Animals that feed on dead bodies of other (a) Detritivores (c) Carnivores | organisms are known as (b) Herbivores (d) Omnivores | 01 |
| Q.15 | The pH value for potable water should be l (a) $5.5 - 6.5$ (c) $7.5 - 8.5$ | between (b) 6.5 – 7.5 (d) 8.5 – 9.0 | 01 |
| Q.16 | The intensity of noise is measured in (a) Newton (c) Decibel | (b) Pascal (d) Watt | 01 |
| Q.17 | Out of following, which is a renewable reso (a) Coal (c) Solar energy | ource. (b) Petroleum (d) Natural gas | 01 |
| Q.18 | Maximum concentration of ozone exists in (a) Troposphere (c) Mesosphere | (b) Stratosphere(d) Thermosphere | 01 |
| Q.19 | Water cycle means (a) Water in lakes (c) Water goes round from water sources to water sources | (b) Water in seas(d) None of these | 01 |
| Q.20 | The portion of earth's surface where life ex (a) Biosphere (c) Atmosphere | xists is called (b) Hydrosphere (d) Lithosphere | 01 |
| Q.21 | Pyramid of biomass can be (a) Upright (c) Can be (a) or (b) | (b) Inverted (d) None of these | 01 |
| Q.22 | Dissolved oxygen in water comes from (a) Photosynthesis of aquatic plants (c) Both (a) & (b) | (b) Atmosphere(d) None of these | 01 |
| Q.23 | Which form the following is an secondary a (a) Ozone (O ₃) (c) Oxides of nitrogen (NO _x) | . , | 01 |
| Q.24 | Biomass energy can be obtained form (a) Energy plantations (c) Agricultural & Urban waste biomass | (b) Petro crops (d) All of these | 01 |

| Q.25 | Over nourished lakes with 'algal blooms' are called | | 01 |
|------|--|---|----|
| | (a) Eutrophic(c) Dystrophic | (b) Oligotrophic(d) Meromictic | |
| Q.26 | The most important agents for ozone deplet (a) CFC's (c) Nuclear fallout | tion are (b) Methane (d) Nitrous oxide | 02 |
| Q.27 | The minimum domestic water consumption Indian city is (a) 100 (c) 150 | on (liters per person per day) in an (b) 135 (d) 200 | 02 |
| Q.28 | Blue baby syndrome, commonly name as n contamination of water due to (a) Phosphates (c) Arsenic | nethaemoglobinemia is caused by the (b) Nitrates (d) Sulphur | 02 |
| Q.29 | As compared to geometrical increase arithmetical increase method gives (a) Lesser value (c) Same value | method of forecasting population, (b) Higher value (d) Accurate value | 02 |
| Q.30 | Eutrophication of lakes is caused by excessi (a) Nitrates (c) Both (a) & (b) | ve presence of & (b) Phosphates (d) None of the above | 02 |
| | SECTION II – SUBJECTI | VE SECTION (LQs) | |
| Q.1 | Differentiate between Conventional & Non- | conventional sources of energy. | 07 |
| Q.2 | With a neat sketch explain Hydrological cycle. | | 07 |
| Q.3 | What are the problems caused due to over population? Explain them in detail. | | 07 |
| Q.4 | What are the major causes and consequences of deforestation? | | 07 |
| Q.5 | Explain ozone layer depletion. Discuss remedial measures for the same. | | 07 |
| Q.6 | Explain the various components of environment. | | 07 |
| Q.7 | Write a note on Global warming & Green H | Iouse effect. | 07 |
