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No. of printed pages: 3

SARDAR PATEL UNIVERSITY
FY BSc (I SEM) (CBCS) EXAMINATION

Thursday, 25th November 2010
11.30 am - 1.30 pm
US01EENV04 : ENVIRONMENTAL SCIENCE

Total Marks: 70

Instructions :

- (1) Answers of all the questions (including multiple choice questions) should be written in the provided answer book only.
- (2) Write only the correct answer for Q.1.
- (3) Draw neat and clear diagram wherever necessary.

Q.1 Choose the correct answer from the given option.

[10]

- (1) Which of the following is not a green house gas ?
 - (a) CFC (Chloro Fluoro Carbon)
 - (b) Water vapour
 - (c) Carbon dioxide
 - (d) Oxygen

- (2) Crust, mantle and core are parts of _____
 - (a) Atmosphere
 - (b) Hydrosphere
 - (c) Exosphere
 - (d) Lithosphere

- (3) Which of the following is not a abiotic component ?
 - (a) Wind
 - (b) Temperature
 - (c) Amoeba
 - (d) Water

- (4) Choose the producer in the ecosystem from the following options.
 - (a) Grasses
 - (b) Rat
 - (c) Hawk
 - (d) Tiger

- (5) _____ is not a component of pond ecosystem.
 - (a) Phytoplankton
 - (b) Zooplankton
 - (c) Bat
 - (d) Fish

- (6) Fossil fuel is a type of _____ .
 (a) Renewable resources
 (b) Non-renewable resources
 (c) Man-made resources
 (d) Mineral resources
- (7) _____ is one of the cause for soil erosion.
 (a) Deforestation
 (b) Plantation
 (c) Crop-rotation
 (d) Intercropping
- (8) _____ is not a Renewable resource.
 (a) Solar energy
 (b) Wind
 (c) Water
 (d) None of the above
- (9) Lichen an example of compulsory mutualism is an association between _____.
 (a) algae and fungi
 (b) algae and roots of higher plants
 (c) fungi and roots of Pinus and Cycas
 (d) algae and paramoecium
- (10) Association between sea-anemone and Hermit crab is an example of :
 (a) Commensalism
 (b) Facultative mutualism
 (c) Endocommensalism
 (d) Compulsory mutualism

Q.2 Answer the following questions (ANY TEN) :

[20]

- (1) Give the names of green house gases (any four).
- (2) Describe lithosphere in brief.
- (3) Write down the composition of atmosphere.
- (4) Write down the biotic components of the pond ecosystem.
- (5) Producers in ecosystem - Describe briefly.
- (6) What is the function of detritores (decomposers) in the ecosystem ?
 Give two examples of decomposers.
- (7) What do you mean by Renewable resources ? Write the types of renewable resources (only names).
- (8) How many types of forest are present in Gujarat ? Give the names.
- (9) Write any two problems associated with dam construction.
- (10) What is mutualism ? Write its types (only names).
- (11) Define Ectocommensalism with the help of one suitable example.
- (12) Give an example of parasitism.

- Q.3 Answer the following :
(a) Explain multidisciplinary nature of environmental science. [06]
(b) Scope of Environmental Science. [04]

OR

- Q.3 Define Bio-geochemical cycle. Explain Nitrogen cycle in detail. [10]

- Q.4 Answer the following :
(a) Energy flow in ecosystem [05]
(b) Food chain in ecosystem [05]

OR

- Q.4 Write down the pyramids ecosystem. Explain them with the help of diagrams. [10]

- Q.5 Answer the following :
(a) Use and over exploitation of surface and ground water. [07]
(b) Use of land resource. [03]

OR

- Q.5 Write a note on : Classification of Renewable and Non-renewable resources and their types. [10]

- Q.6 Explain Commensalism, its types and give examples of each type and explain the example with suitable diagram. [10]

OR

- Q.6 Describe :
(a) Parasitism in detail with examples and suitable diagram. [05]
(b) Predation in detail with examples and suitable diagram. [05]
