UNIVERSITY INSTITUTE OF ENGINEERINGAND TECHNOLOGY, CSJM UNIVERSITY, KANPUR

End Semester Examination-Dec 2022 B.Tech. CSE/MEE -IV Sem

Environment Science (EVS S101)

Semester: Odd Semester-III Year (2K20)

Time: 3 h Maximum marks: 40

A. Multiple choice questions (Attempt all the question)

1*15=15

- 1. The main objective of UNESCO is to contribute to peace and security in the world by promoting
- (1) Education & Communication (2) Science (3) Culture (4) All of these
- 2. Which one of the following is an example of nonrenewable resource?
- (1) Water (2) Vegetation (3) Wind (4) Coal and minerals
- 3. Water balance is maintained by the other continuous interchange of water between Earth and atmosphere via 1) Precipitation 2) Evaporation 3) Transpiration4) All of the above
- 4. Presence of the fertilizers in soil leads to
 - i) Loss of fertility ii) Higher Growth of Floura & Fauna iii) Algal bloom iv) Net Primary Productivity
- 5. What is the rate at which solar energy is converted and stored by the producers per unit area over a time period called?
 - (i) Primary Productivity ii) Secondary Productivity iii) Gross Primary Productivity iv) Resources
- 6. Respiration involves
- 7. 1) Inhaling O2 and exhaling Co2 and Food Oxidation 2) Oxidation of Food 3) Inhaling Oxygen 3) Inhaling O2 and exhaling Co2 4) None of these
- 8. Pick the right combination of terms which has no fossil fuel.
- 1) Wind, ocean and coal ii) Kerosene, wind and tide iii) Wind, wood, sun iv) Petroleum, wood, sun
- 9. Coniferous Forest are----
 - 1) Broad leaved forest with Jamun, ficus, Fern, Oak as flora and Tiger, elephant as fauna.
 - 2) Narrow leaved with Pinus, Quercus, barberis as flora and Himalayan goat, black bear, and sheep as fauna
 - 3) Minimum Flora and Fauna
- 4) None of the above
- 10. Physical Elements of Environment includes
- 1) Space, landforms, and water bodies 2) climate, soils 3) Rocks minerals 4) All of these
- 11. In Food Chain Energy is transferred from one trophic level to another, which is approximately
 - 1) 20 % 2) 25%
- 3) 10%
- 4) 15 %
- 12. According to Kurt Lewin, environment is of three types which influence the personality of an individual as under
 - 1) Physical Environment 2) Social and Cultural Environment, and 3) Psychological Environment d) All of these
- 13. If The acid chemicals in the air are blown into areas where the weather is wet, the acids can fall to the ground in the form of
 - 1) Send 2) Rain, snow, Fog 3) Air 4) Soil
- 14. Fox is an example of
 - (1) Primary Consumer (2) Secondary Consumer (3) Tertiary Consumer (4) Top Carnivore
- 15. Aquatic Animal die because of
 - (1) Air Pollution (2) Water & thermal Pollution by industrial effluents (3) Noise (4) polluted soil

Section B (Conceptual Knowledge- attempt any 3 questions). 3x3

1. Draw Food web using interconnection of food chain by arranging all the organism in order of Food Chain

Foxes Yellow Perch Aquatic Plants Grass Grasshooper Zooplankton snake Peacock

Plant flower, Phytoplankton lizard, Grass Dragonfly Larva Tadpole Eagle

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2. Match the list I wish list II and choose the correct answer. Draw an Indian Map and locate all these hotspot on Map.

Hostspot

- 1 Himalaya
- 2 Indo-Burma
- 3 Sundaland
- 4 Western Ghat
- 3. Define Species Biodiversity & Explain role of evolution in Biodiversity.
- 4. "Describe energy flow in Ecosystems.
- 5. Write down the key concept & goal of Sustainable development.
- 6. Write down the objectives of Environmental Studies, given by UNESCO

Section C (based on Procedural Knowledge- Attempt any 2 questions).

Attempt Any two question

8 x2

- 1. What is renewable energy Discuss about wind Energy, Geothermal Energy & Tidal Energy Conversion Methods.
- 2. Discuss about management of resources (a) renewable resource of energy (b) nonrenewable resource of Energy.
- 3. What is Ecosystem & Biome. Discuss about the Design, Recreate & Restore in for any Ecosystem.
- 4. (a) Write down the method of sustainable development? (b) Discuss about problems, Challenges Role of Engineering solutions for sustainable development.
- 5. (a) What is GPS? (b) Explain How GPS works? (c) Describe the application of GPS.
- 6. (a) What is GIS? (b) How GIS works with other navigation system? (c) discuss about various application of GIS.
- 7. (a) What is IUCN? (b) How IUCN categorized different species to signify their conservation status?
- 8. (a) What are pollution reducing devices? (b) Discuss about role of computers in their designing using a suitable example. (c) What are new technologies used for metal removal from waste?
- 9. (a) What is Solar energy? Discuss about Photovoltaic device & its application
- 10. Discuss about Special powers of the President of India/Governors of States in respect to protect Scheduled Tribes' population, Water, Forest & Land resources.