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Internal Assessment Test 1 – November 2024

Sub	ENVIRONMENTAL STUDIES					Sub Code	BESK508	Branch	ECE
Date	08.11.2024	Duration:	90 mins	Max Marks:	50	Sem	V		

Answer all the questions (Each carry 1 mark)

1	In the energy flow diagram of an ecosystem, the flow of energy comes to herbivores from (a) a) Sunlight b) Carnivores c) Producers d) None of the above	12	Which of the following layers is the tallest in a tropical rainforest? (C) a) Shrub layer b) Forest floor c) Canopy layer d) Ground floor
2	Identify the abiotic components of an ecosystem? (a) a) Soil b) Plants c) Animals d) None of the above	13	Which of the following factors is abiotic in a forest ecosystem? (C) a) Deer b) Trees c) Temperature d) Fungi
3	Ecosystem can be defined as (b) a) Interaction between living things b) Interaction between biotic and abiotic factors c) Interaction between abiotic factors d) Fights among individuals	14	Which of the following statements is true about a forest ecosystem? (c) a) All animals are producers b) Forests do not contribute to oxygen production c) Forests help in the carbon cycle d) The forest ecosystem is not affected by human activities
4	The phytoplankton, zooplankton, and fungi are components of which ecosystem? (b) a) Pond b) Land c) Desert d) Terrestrial	15	Which of the following is the primary limiting factor in a desert ecosystem? (b) a) Nutrient availability b) Temperature c) Rainfall d) Soil type
5	Who reuses the decomposed dead matter? (b) a) Zooplankton b) Autotrophs c) Heterotrophs d) Flagellates	16	The dominant flora of hot deserts includes: (b) a) Oak trees b) Cacti and succulents c) Grasses and mosses d) Pine trees
6	Who are the primary consumers of a biotic community? (d) a) Omnivores b) Scavengers c) Detritivores d) Herbivores	17	Which of the following human activities is most responsible for the desertification of land? (a) a) Overgrazing b) Afforestation c) Urbanization d) Fishing
7	What will happen if we remove the decomposers from an ecosystem? (c) a) Energy flow stops b) Consumers die c) Nutrient will recycle will not occur d) Plants won't receive solar energy	18	Which of the following is a primary producer in a riverine ecosystem? (a) a) Phytoplankton b) Frogs c) Fish d) Crabs
8	Whose population is highest in an ecosystem? (d) a) Primary producers b) Secondary consumers c) Primary consumers d) Decomposers	19	Which of the following is the largest ecosystem on Earth? (c) a) Forest b) Desert c) Ocean d) Wetlands
9	Which one of the following is the correct sequence of a grassland food chain? (c) a) Grass → Wolf → Bacteria → Deer b) Grass → Deer → Fungi → Wolf c) Grass → Deer → Wolf → Fungi d) Grass → Fungi → Wolf → Deer	20	Zooplankton in oceanic ecosystems are important because they: (b) a) Produce oxygen b) Feed on phytoplankton and serve as a food source for larger animals c) Create coral reefs d) Filter pollutants from the water
10	During the energy flow in an ecosystem, in which form is the energy dissipated during various metabolic activities? (d) a) Ammonia b) Vapours c) Photons d) Heat	21	Which of the following is the largest source of fresh water on Earth? (c) a) Lakes b) Rivers c) Glaciers and polar ice caps d) Groundwater
11	Which organisms are responsible for breaking down complex organic matter into inorganic substances? (a) a) Decomposers b) Producers c) Consumers d) Herbivores	22	Which is the main purpose of constructing dams? (a) a) To generate hydroelectric power b) To enhance tourism c) To control earthquake activities d) To stop water flow permanently
		23	The process of removing salt and other impurities from seawater is called: (d) a) Filtration b) Distillation c) Sedimentation d) Desalination

24	Which of the following parameters is commonly used to measure the acidity of water? (b) a) Dissolved Oxygen b) pH level c) Turbidity d) Biological Oxygen Demand
25	Which of the following is commonly used to disinfect water and make it safe for drinking? (a) a) Chlorine b) Mercury c) Sulfur d) Nitrogen
26	Which of the following is considered a conventional source of energy? (c) a) Solar power b) Wind energy c) Natural gas d) Tidal energy
27	Which fossil fuel is known as the "cleanest" in terms of lower emissions? (c) a) Coal b) Oil c) Natural gas d) Kerosene
28	What is the main disadvantage of using coal as an energy source? (C) a) High cost b) Low availability c) Environmental pollution d) Renewable nature
29	Which of the following is a non-conventional source of energy? (C) a) Coal b) Nuclear energy c) Solar energy d) Natural gas
30	The main advantage of using non-conventional energy sources over conventional sources is: (C) a) High production costs b) Limited availability c) Minimal environmental impact d) High carbon emissions
31	Which of the following non-conventional energy sources uses the gravitational pull of the moon and sun? (d) a) Solar energy b) Wind energy c) Biomass d) Tidal energy
32	Which type of energy conversion occurs in a solar panel? (d) a) Chemical to thermal b) Kinetic to electrical c) Thermal to mechanical d) Solar to electrical
33	What is the main limitation of solar energy as a source of power? (c) a) It emits greenhouse gases b) High levels of pollution c) Dependence on weather and daylight d) Non-renewable nature
34	Which of the following energy sources produces radioactive waste as a by-product? (b) a) Solar energy b) Nuclear energy c) Wind energy d) Biomass energy
35	Hydropower generation relies on: (b) a) Wind currents b) Flowing water c) Sunlight d) Combustion of fossil fuels
36	Which of the following devices is used to convert sunlight directly into electricity? (C) a) Solar thermal collector b) Solar battery c) Photovoltaic cell d) Solar generator
37	Solar panels are typically made of which material to absorb sunlight efficiently? (b) a) Copper b) Silicon c) Aluminium d) Zinc

38	Which type of renewable energy is often used in combination with solar energy to create a hybrid system? (a) a) Wind energy b) Nuclear energy c) Biomass energy d) Fossil fuels
39	The process of electrolysis involves splitting water into: (b) a) Oxygen and nitrogen b) Oxygen and hydrogen c) Carbon dioxide and hydrogen d) Methane and hydrogen
40	Which of the following is NOT an advantage of wind energy? (C) a) Renewable and sustainable b) Low operational costs c) Consistent energy production regardless of whether d) Environmentally friendly
41	Which of the following is a primary air pollutant? (b) a) Ozone (O ₃) b) Carbon monoxide (CO) c) Sulfur trioxide d) Nitrate
42	Which of the following pollutants is the main cause of global warming? (b) a) Nitrogen dioxide b) Carbon dioxide c) Methane d) Ozone
43	Which layer of the atmosphere is most affected by the depletion of the ozone layer? (b) a) Troposphere b) Stratosphere c) Mesosphere d) Thermosphere
44	Which gas is primarily responsible for the greenhouse effect? (b) a) Oxygen b) Carbon dioxide c) Nitrogen d) Helium
45	The term "bioaccumulation" refers to: (b) a) Accumulation of greenhouse gases in the atmosphere b) Build-up of toxic substances in the tissues of organisms c) Accumulation of nutrients in water d) Increase of oxygen levels in the ecosystem
46	Which chemical is primarily responsible for the thinning of the ozone layer? (C) a) Carbon dioxide b) Methane c) Chlorofluorocarbons d) Sulfur
47	Which process describes the increase of pollutants, such as heavy metals, as they move up the food chain? (b) a) Bioaccumulation b) Biomagnification c) Eutrophication d) Thermal pollution
48	What is the effect of oil spills on marine ecosystems? (c) a) Increase in oxygen levels in water b) Enhanced photosynthesis in algae c) Decreased sunlight penetration and harm to marine life d) Increased fish populations
49	What is the primary source of nutrient pollution in freshwater bodies? (C) a) Industrial waste b) Heavy metals c) Fertilizer runoff from agriculture d) Household cleaning products
50	Which of the following diseases can be caused by drinking contaminated water? a) Diabetes b) Cholera c) Asthma d) Heart disease (b)

Course instructor

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