

Model Question Paper-1 with effect from 2022-23 (CBCS Scheme)

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Fifth Semester B. E Degree Examination Environmental Studies

TIME: 01 Hours

Max.Marks:50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the fifty questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. For each question, after selecting your answer, **darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

Answer the following Questions		*Bloom's Taxonomy Level	COs	Marks
1.	Habitat refers to a) Physical conditions of the place where organisms live b) Chemical conditions of the place where organisms live c) Both a & b d) None of a or b	L1	CO1	1
2.	Which of the following energy has the greatest potential among all the sources of renewable energy? a) Solar energy b) Wind Energy c) Thermal energy d) Hydro-electrical energy	L1	CO1	1
3.	The term 'Environment' has been derived from the French word which means to encircle or surround a) Environ b) Oikos c) geo d) Aqua	L1	CO1	1
4.	Which of the following statements is false? a) Inorganic nutrients are recycled in an ecosystem b) Energy 'flows' through the ecosystem in the form of carbon-carbon bonds c) Energy is recycled in an ecosystem d) Respiration process releases energy	L1	CO1	1
5	In terms of greenhouse gas emissions, how good or bad is hydrogen fuel? a) Major contributor of greenhouse gas emissions b) Zero-emission fuel c) Lowest contributor of greenhouse gas emissions	L1	CO1	1

	d)Hydrogen cannot be used as fuel			
6.	A food web consists of a)a portion of a food chain b) an organism's position in a food chain c) interlocking food chains d) a set of similar consumers	L1	CO1	1
7.	In what form is solar energy is radiated from the sun? a)Ultraviolet Radiation b)Infrared radiation c)Electromagnetic waves d)Transverse waves	L1	CO1	1
8.	The by-product of the ocean thermal energy conversion is a)Hot water b)Desalinated water c)Chemicals d)Gases	L1	CO2	1
9.	Where can we find both running water as well as stagnant water? a)Marine ecosystems b)Wetlands c)Coral reefs d)Freshwater ecosystems	L1	CO2	1
10	----- is the conventional source for hydel power. a)Tidal wave b)Currents c)Water d)Ripples	L1	CO2	1
11	Ground water characteristics must be monitored at least once in a till design span. a) Week b) Month c) Day d) Quarter	L1	CO2	1
12	Acid rains are produced by (a)Excess NO ₂ and SO ₂ from burning fossil fuels (b)Excess production of NH ₃ by industry and coal gas (c)Excess release of carbon monoxide by incomplete combustion (d) Excess formation of CO ₂ by combustion and animal respiration.	L1	CO2	1
13	Which ecosystem is known as giant permanent pond? a)Lake Ecosystem b)Pond ecosystem c)Seashore ecosystem d)Marine ecosystem	L1	CO2	1
14	Which of the following is a producer in an ecosystem a)Plants and some bacteria capable of producing their own food b)Animals c) Human beings d) Fish	L1	CO2	1
15	The transfer of energy & nutrients from one feeding group of organization to another in a series is called. a)Energy chain b) Food Chain c) Balanced ecosystem d) Food Web	L1	CO1	1

16	Which one of the following is a result of climate change? a) Adequate rainfall b) Pure air c) Deficiency of freshwater d) Less soil pollution	L1	CO2	1
17	-----contaminant causes kidney and liver problems if present in groundwater. a) Benzene b) Toluene c) Benzotoulene d) Lead	L2	CO2	1
18	In an ecosystem, the flow of energy is a) Bidirectional b) Cyclic c) Unidirectional d) Multidirectional	L2	CO2	1
19	Which type of turbine is commonly used in tidal energy? a) Francis turbine b) Kaplan turbine c) Pelton wheel d) Gorlov turbine	L1	CO1	1
20	In an ecosystem biological cycling of materials is maintained by a) Producer b) Consumer c) Decomposer d) All of the above	L1	CO1	1
21	What type of energy is wind energy? a) Renewable energy b) Non-renewable energy c) Conventional energy d) Commercial energy	L1	CO1	1
22	Disaster management deals with situation that occurs after the disaster. a) True b) False	L1	CO1	1
23	What is the significance of the ionosphere? a) Aviation movements b) High frequency radio transmission c) Regulates weather d) All of the mentioned	L1	CO1	1
24	World Environment day is on a) 5th May b) 5th June c) 18th July d) 16th August	L2	CO3	1
25	How is hydrogen gas produced from fossil fuels? a) Partial oxidation of methane b) Electrolysis c) Evaporation d) Biomass gasification	L1	CO2	1
26	The Taj Mahal in India is affected by a) Fog b) Acid rain c) Water pollution d) Spoil Pollution	L1	CO1	1

27	<p>Environmental Impact Assessment (EIA) is mandatory under which one of the following India legislations:</p> <p>a) Indian Forest Act b) Air (Prevention and Control of Pollution) Act c) Wildlife Protection Act d) Environment (Protection) Act</p>	L2	CO3	1
28	<p>What is the primary aim of the Air (Prevention and Control of Pollution) Act, 1981?</p> <p>a) To promote water conservation b) To control air pollution and preserve air quality c) To regulate waste management practices d) To protect soil quality</p>	L2	CO3	1
29	<p>Under the Solid Waste Management Rules, 2016, which of the following is NOT a duty of waste generators?</p> <p>a) To segregate waste at the source b) To manage waste through disposal in landfills c) To register with the authorities d) To ensure waste is handled by authorized persons</p>	L1	CO3	1
30	<p>Which year was the Water (Prevention and Control of Pollution) Act enacted?</p> <p>a) 1980 b) 1974 c) 1991 d) 1986</p>	L2	CO3	1
31	<p>Under the Solid Waste Management Rules, 2016, which of the following is NOT a duty of waste generators?</p> <p>a) To segregate waste at the source b) To manage waste through disposal in landfills c) To register with the authorities d) To ensure waste is handled by authorized persons</p>	L2	CO3	1
32	<p>The Water Act, 1974 led to the establishment of which regulatory body?</p> <p>a) Central Water Commission b) Central Pollution Control Board and State Pollution Control Boards c) Ministry of Environment and Forests d) National Green Tribunal</p>	L2	CO3	1
33	<p>According to the Biomedical Waste Management Rules, 2016, which color bin is designated for disposing of infectious waste?</p> <p>a) Yellow b) Blue c) Red d) Black</p>	L1	CO2	1
34	<p>What is the process of movement downwards of vadose water called?</p> <p>a) Infiltration b) Filtration c) Deposition d) Down-flow</p>	L1	CO2	1
35	<p>What is called for the movement of surface litter and topsoil from one place to another?</p> <p>a) Soil submerge b) Soil degradation c) Soil erosion d) Soil pollution</p>	L1	CO1	1

36	-----is caused by drinking water high in nitrates. a) Cholera b) Methemoglobinemia c) Kidney problem d) Liver problem	L1	CO1	1
37	In which Act, noise is included as an environmental pollutant? a) 1974 b) 1981 c) 1988 d) 1994	L2	CO3	1
38	What is the upper surface of the zone saturation called? a) Aquifer` b) Aquiclude c) Water table d) Aquifuge	L1	CO1	1
39	How many primary pollutants are there? a) Three b) Five c) Seven d) Nine	L1	CO1	1
40	The term 'Municipal Solid Waste' is used to describe which kind of solid waste? a) Hazardous b) Toxic c) Non hazardous d) Non toxic	L1	CO1	1
41	Open cycle OTEC uses surface water directly to make electricity. a) Hot b) Warm c) Cool d) Icy	L1	CO2	1
42	What does OTEC stand for? a) Ocean thermal energy cultivation b) Ocean thermal energy conversion c) Ocean techno energy conservation d) Ocean thermal energy consumption	L1	CO2	1
43	Which of the turbine can be mounted vertically and horizontally? a) Pelton wheel b) Kaplan turbine c) Gorlov turbine d) Francis turbine	L1	CO2	1
44	What type of energy is wind energy? a) Renewable energy b) Non-renewable energy c) Conventional energy d) Commercial energy	L1	CO2	1
45	Tsunami detectors are placed in sea at kms from shore. a) 25 b) 100 c) 50 d) 85	L2	CO1	1
46	What makes desert region to become highly unproductive? a) Salinity b) Sunlight c) Temperature	L1	CO1	1

	d) Increase in the rain			
47	How can desert ecosystems be conserved? a) By minimizing the human activity b) By pouring water to desert area c) By deforestation d) By killing organisms	L1	CO1	1
48	How the tropical rain forest gets the name? a) Due to less rain b) Due to heavy rain c) Due to moderate rain d) Due to no rain required	L1	CO1	1
49	How can we control acid rain which is causing due to the exhaust fumes on the atmosphere by cars? a) By burning more fuels b) By using old engine vehicles c) By using ignition d) By using catalytic converters	L1	CO1	1
50	Which is the most acidic in pH scale? a) 0 b) 7 c) 10 d) 14	L2	CO2	1

ModelQuestionPaper-1/2witheffectfrom2021(CBCSScheme)

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Model Question Paper-2 with effect from 2022-23 (CBCS Scheme)

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Answer the following Questions		*Bloom's Taxonomy Level	COs	Marks
1.	Which type of ecosystem is characterized by high biodiversity, tall trees, and a warm climate year-round? a) Desert ecosystem b) Riverine ecosystem c) Forest ecosystem d) Oceanic ecosystem	L1	CO1	1
2.	Which of the following best defines an ecosystem? a) A community of organisms interacting with each other only b) A network of species sharing similar resources c) A system involving interactions between living organisms and their physical environment d) A group of species that live in the same geographic area	L1	CO1	1
3.	Which ecosystem is most adapted to extreme temperatures and low water availability? a) Wetlands b) Forest c) Desert d) Oceanic	L1	CO1	1
4.	What is the primary goal of the United Nations' Sustainable Development Goal (SDG) 1? a) Achieve universal education b) Eradicate poverty in all its forms c) Ensure clean water and sanitation d) Combat climate change	L1	CO1	1
5	What is the primary characteristic of wetlands? a) High salinity b) Frequent flooding and water saturation c) Sparse vegetation	L1	CO1	1

	d) Rocky terrain			
6.	SDG 13 focuses on which critical global issue? a) Marine life conservation b) Climate action c) Gender equality d) Sustainable agriculture	L1	CO1	1
7.	SDG 14 focuses on the conservation and sustainable use of: a) Freshwater resources b) Terrestrial ecosystems c) Oceans, seas, and marine resources d) Urban environments	L1	CO1	1
8.	Which of the following ecosystems plays a crucial role in carbon sequestration? a) Oceanic ecosystem b) Desert ecosystem c) Riverine ecosystem d) Mountain ecosystem	L1	CO2	1
9.	Which SDG promotes responsible consumption and production patterns? a) SDG 12 b) SDG 9 c) SDG 5 d) SDG 15	L1	CO2	1
10	Which of the following is the largest source of freshwater on Earth? a) Rivers b) Glaciers and ice caps c) Groundwater d) Lakes	L1	CO2	1
11	Which of the following is a primary indicator of water quality? a) Temperature b) Turbidity c) Salinity d) pH level	L1	CO2	1
12	Which of the following diseases is primarily water-borne? a) Tuberculosis b) Cholera c) Malaria d) Dengue	L1	CO2	1
13	What percentage of the Earth's water is freshwater? a) 97% b) 50% c) 2.5% d) 10%	L1	CO2	1
14	Which of the following organisms causes typhoid? a) Vibrio cholerae b) Salmonella typhi c) Plasmodium falciparum d) Escherichia coli	L1	CO2	1
15	Malaria is an example of which type of disease? a) Water-borne b) Air-borne c) Water-induced d) Food-borne	L1	CO1	1
16	The recommended safe limit of fluoride in drinking water by the	L1	CO2	1

	WHO is: a) 1.5 mg/L b) 2.5 mg/L c) 3.0 mg/L d) 0.5 mg/L			
17	Excess fluoride in drinking water primarily causes which health condition? a) Rickets b) Fluorosis c) Goiter d) Scurvy	L2	CO2	1
18	Which of the following is a non-conventional source of energy? a) Coal b) Natural Gas c) Solar Energy d) Petroleum	L2	CO2	1
19	Hydropower is considered a type of: a) Solar energy b) Non-renewable energy c) Renewable energy d) Geothermal energy	L1	CO1	1
20	Fluoride in drinking water affects which part of the human body the most? a) Liver b) Teeth c) Heart d) Lungs	L1	CO1	1
21	Which country is the largest producer of wind energy? a) India b) China c) Germany d) USA	L1	CO1	1
22	What is the primary advantage of using solar energy? a) Low installation cost b) Non-renewable source c) Zero greenhouse gas emissions d) High maintenance cost	L1	CO1	1
23	Hydrogen is considered a clean energy source because: a) It is abundant in fossil fuels b) It produces only water as a by-product c) It is cheaper than coal d) It can only be used in nuclear reactors	L1	CO1	1
24	Which form of energy is stored in fossil fuels? a) Nuclear Energy b) Thermal Energy c) Chemical Energy d) Electrical Energy	L2	CO3	1
25	Which gas is the primary contributor to the greenhouse effect? a) Oxygen b) Carbon dioxide c) Nitrogen d) Argon	L1	CO2	1
26	What is the primary effect of excessive nutrients like nitrogen and phosphorus in water bodies? a) Acidification	L1	CO1	1

	b) Eutrophication c) Ozone depletion d) Desertification			
27	Which of the following is a major source of water pollution? a) Agricultural runoff b) Solar energy production c) Wind energy turbines d) Geothermal power plants	L2	CO3	1
28	Which pollutant is most commonly associated with industrial wastewater? a) Pesticides b) Heavy metals c) Carbon dioxide d) Methane	L2	CO3	1
29	What is the unit used to measure noise levels? a) Hertz (Hz) b) Decibel (dB) c) Joule (J) d) Pascal (Pa)	L1	CO3	1
30	Which of the following is a major source of air pollution in urban areas? a) Agricultural activities b) Automobile emissions c) Deforestation d) Solar power plants	L2	CO3	1
31	What is a key preventive measure for reducing air pollution? a) Reducing deforestation b) Using renewable energy sources c) Increasing the use of fossil fuels d) Promoting single-use plastics	L2	CO3	1
32	Which pollutant is responsible for causing acid rain? a) Carbon monoxide b) Sulfur dioxide c) Methane d) Ammonia	L2	CO3	1
33	Which health condition is most commonly associated with air pollution? a) Osteoporosis b) Respiratory diseases c) Skin infections d) Digestive disorders	L1	CO2	1
34	Which type of waste is classified under biomedical waste? a) Construction debris b) Used syringes c) E-waste d) Food packaging	L1	CO2	1
35	Which of the following is a major source of solid waste in urban areas? a) Agriculture b) Industries c) Households d) Forests	L1	CO1	1
36	Which type of solid waste is categorized as biodegradable? a) Glass bottles b) Plastic bags c) Food scraps	L1	CO1	1

	d) Aluminum cans			
37	What is the final step in the functional elements of solid waste management? a) Waste collection b) Waste transportation c) Waste disposal d) Waste generation	L2	CO3	1
38	What is a key characteristic of biomedical waste? a) Non-hazardous b) Radioactive c) Infectious and hazardous d) Biodegradable and harmless	L1	CO1	1
39	According to the Solid Waste Management Rules, 2016, which of the following is a duty of waste generators? a) Ensure segregation of waste at source b) Transport waste to landfill sites c) Burn the waste in open spaces d) Dispose of waste in water bodies	L1	CO1	1
40	Under the Biomedical Waste Management Rules, 2016, biomedical waste should be treated and disposed of within how many hours of generation? a) 12 hours b) 24 hours c) 48 hours d) 72 hours	L1	CO1	1
41	Which hazardous pollutant is commonly found in e-waste? a) Mercury b) Methane c) Sulfur dioxide d) Carbon monoxide	L1	CO2	1
42	Which of the following is a basic principle of e-waste management? a) Open burning of e-waste b) Extended Producer Responsibility (EPR) c) Dumping in water bodies d) Burying without treatment	L1	CO2	1
43	The E-Waste (Management) Rules, 2022, introduced stricter guidelines on: a) Banning e-waste recycling b) EPR targets for producers c) Eliminating e-waste management entirely d) Exporting all e-waste overseas	L1	CO2	1
44	What is the primary aim of the E-Waste (Management) Rules, 2022? a) Promote informal recycling of e-waste b) Encourage scientific and safe disposal of e-waste c) Increase landfilling of e-waste d) Restrict the use of recycled components	L1	CO2	1
45	According to the E-Waste (Management and Handling) Rules, 2011, who is primarily responsible for the collection of e-waste? a) Municipal corporations b) Producers and manufacturers c) Consumers d) Educational institutions	L2	CO1	1
46	Which of the following environmental issues is caused by improper e-waste disposal?	L1	CO1	1

	<ul style="list-style-type: none"> a) Ozone depletion b) Soil and groundwater contamination c) Desertification d) Ocean acidification 			
47	<p>Which of the following devices contributes the most to global e-waste generation?</p> <ul style="list-style-type: none"> a) Refrigerators b) Mobile phones and computers c) Solar panels d) Wind turbines 	L1	CO1	1
48	<p>Which toxic substance in e-waste is known to cause kidney damage when improperly disposed of?</p> <ul style="list-style-type: none"> a) Cadmium b) Carbon dioxide c) Nitrogen d) Phosphorus 	L1	CO1	1
49	<p>Which component of e-waste is most valuable for recycling due to its precious metal content?</p> <ul style="list-style-type: none"> a) Plastic casings b) Circuit boards c) Batteries d) Cathode ray tubes 	L1	CO1	1
50	<p>Lead, often present in e-waste, primarily affects which human organ?</p> <ul style="list-style-type: none"> a) Lungs b) Brain c) Liver d) Heart 	L2	CO2	1

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