Uka Tarsadia University (Diwaliba Polytechnic)
Diploma in Environmental Engineering
Objective Type Questions (Ecology Environmental Pollution)

Chapter-1	
1	___are organized on local, national and international levels to serve specific social or political purposes. a-NGO b-Governments c-Individual d-All of the above Ans-a
2	___make rules, laws, and regulations. a-NGO b-Governments c-Individual d-All of the above Ans-b
3	German biological Ernst Haeckel used term Ecology first time in ___ a-1870 b-1869 c-1865 d-1862 Ans-b
4	Which biological Ernst Haeckel used term Ecology first time in 1869? a-German b-Indian c-American d-Russian Ans-a
5	Who used term Ecology first time in 1869? a- Ernst Haeckel b-Charles Elton c-Fredrick elements d-Tansley Ans-a
6	_____defined ecology as the “scientific natural history” which deals with the “sociology and economy of animals”. a- Ernst Haeckel b-Charles Elton c-Fredrick elements d-Tansley Ans-b
7	Charles Elton defined ecology as the “_____” which deals with the

	"sociology and economy of animals". a-Natural History b- Scientific natural history c-Both a and b d-None of the above Ans-b
8	Environmental science comprised of : a-Earth Science b-Life Science c-Social Science d-All of the above Ans-d
9	Who found that the Earth's crust is the result of gradual changes throughout the history of the planet? a-Charles Lyell b- Ernst Haeckel c- Charles Elton d- Tansley Ans-a
10	Charles Lyell found that the Earth's crust is the result of gradual changes throughout the history of the planet. a-English geologist b-German geologist c-American geologist d-Russian geologist Ans-a
11	Who proposed the concept of "ecosystem"? a-Charles Lyell b- Ernst Haeckel c- Charles Elton d- Tansley Ans-d
12	Tansley proposed the concept of "ecosystem" in which year? a-1930 b-1935 c-1940 d-1945 Ans-b
13	Tansley (1935) proposed the concept of "ecosystem". This term was later developed by ____ a-Lindeman b-Ernst Haeckel c-Charles Elton d-Charles Lyell Ans-a
14	Tansley (1935) proposed the concept of "ecosystem". This term was later

	developed by Lindeman in which year? a-1940 b-1941 c-1943 d-1945 Ans-b
15	Which of the following are the roles of NGO's in protection for the Environment in India? a-Creating awareness among the public on current environmental issues and solutions. b- Facilitating the participation of various categories of stakeholders in the discussion on environmental issues c- Protecting the natural resources and entrusting the equitable use of resources. d- All of the above Ans-d
16	Which of the following are the NGOs that work in the field of environmental conservation and ecology? a-Centre for Environmental Education (CEE) b- Centre for Science and Environment (CSE) c- Narmada Bachao Andalon d-All of the above Ans-d
17	Narmada Bachao Andalon setup in which year? a-1989 b-1987 c-1986 d-1985 Ans-c
18	____ is the branch of science that deals with the study of interactions between living organisms and their physical environment. a-Ecology b-Ecosystem c-Environment d-All of the above Ans-a
19	Which of the following are not the types of ecology? a-molecular b-organismal c-population d-social Ans-d
20	Which of the following are the types of ecology? a-molecular b-organismal c-population d-all of the above

	Ans-d
21	Which of the following are the types of ecology? a-community b-global c-landscape d-all of the above Ans-d
22	Who devised the word ecology? a-Charles Lyell b- Ernst Haeckel c- Charles Elton d- Tansley Ans-b
23	An organism free from the interference of other species and can use a full range of biotic and abiotic resources in which it can survive and reproduce is known as its fundamental niche. a-true b-false Ans-a
24	Habitat ecology is the type of natural environment in which a particular species of an organism live, characterized by both physical and biological features. a-true b-false Ans-a
25	 What are the different levels of ecology? a-organisms b-communities c-population d-all of the above Ans-d
26	English ecologist Charles Elton defined ecology as the “scientific natural history” which deals with___ a-sociology b-economy of animals c-both a and b d-none of the above Ans-c
27	Who considered that ecology was “the science of the community”? a-Frederick Clements b- Ernst Haeckel c- Charles Elton d- Tansley Ans-a
28	Who defined the study of the structure and function of nature’.?

	a-Eugene Odum b- Ernst Haeckel c- Charles Elton d- Tansley Ans-a
29	Eugene Odum defined the study of the structure and function of nature'. a-English ecologist b-German ecologist c-American ecologist d-Russian ecologist Ans-c
30	Frederick Clements considered that ecology was "the science of the community"? a-English ecologist b-German ecologist c-American ecologist d-Russian ecologist Ans-c
31	Eugene Odum considered that ecology was "the science of the community" a-true b-false Ans-b
32	Frederick Clements defined the study of the structure and function of nature'. a-true b-false Ans-b
33	Frederick Clements considered that ecology was "the science of the community". He was a German ecologist? a-true b-false Ans-b
34	Eugene Odum defined the study of the structure and function of nature'. He was a American ecologist? a-true b-false Ans-a
35	In the Decade of the 40s, Tansley (1935) proposed the concept of "ecosystem". a-true b-false Ans-a
36	The word environment is derived from the word "environ" which means surrounding. a-true b-false Ans-a
37	All the components of the environment are basically divided into___ categories.

	a-2 b-3 c-4 d-5 Ans-a
38	All the components of the environment are basically divided into 2 categories.1-Biotic environment 2-Abiotic environment a-true b-false Ans-a
39	German biological Ernst Haeckel used term Ecology first time in 1870. a-true b-false Ans-b
40	Environmental ethics believe that humans are a part of society as well as other living creatures, which includes plants and animals. a-true b-false Ans-a
41	Which of the following human activities causes environmental pollution? a-household waste b-cutting down of trees c-using fossil fuels d-all of the above Ans-d
42	Industrialization has given way to pollution and ecological imbalance. a-true b-false Ans-a
43	____ethics is a branch of ethics that studies the relation of human beings and the environment and how ethics play a role in this. a-Environmental b-Ecology c-Ecosystem d-None of the above Ans-a
44	Environmental ethics is a branch of ethics that studies the relation of human beings and the environment and how ethics play a role in this. a-true b-false Ans-a
45	Which of the following are the roles of individual in protection for the Environment in India? a- To plant more trees b- To help more in pollution prevention than pollution control.

	c- To purchase recyclable, recycled and environmentally safe products d- All of the above Ans-d
46	Which of the following are the roles of individual in protection for the Environment in India? a-Use chlorofluorocarbon (CFC) free refrigerators b-Use natural gas than coal c-Reduce deforestation d-all of the above Ans-d
47	Which of the following are the roles of individual in protection for the Environment in India? a-Increase the use of renewable resources b-Remove NOx from the motor vehicular exhaust c-Use water, energy and other resources efficiently d-all of the above Ans-d
48	Which of the following steps being taken by the Government to control pollution? a-Notification of National Ambient Air Quality Standards b- Formulation of environmental regulations / statutes c-Introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.) d-all of the above Ans-d
49	Which of the following steps being taken by the Government to control pollution? a- Promotion of cleaner production processes b- Notification of Construction and Demolition Waste Management Rules c- Ban on burning of leaves, biomass, municipal solid waste d-all of the above Ans-d
50	Which of the following steps being taken by the Government to control pollution? a- Promotion of public transport network of metro, buses, e-rickshaws and promotion of car pooling, Pollution Under Control, lane discipline, vehicle maintenance b- Preparation of action plan for sewage management and restoration of water quality in aquatic resources by State Governments c- Taxing polluting vehicles and incentivizing hybrid and electric vehicles d-all of the above Ans-d

Chapter-2	
1	____is a natural unit consisting of all plants, animals and microorganisms in an area functioning together with all of the non living physical factors of the

	environment. a-Aquatic ecosystem b-Forest ecosystem c-Grassland ecosystem d-Desert ecosystem Ans-b
2	____is a biological community that contains few trees or shrubs characterized by mixed herbaceous vegetation cover. a-Aquatic ecosystem b-Forest ecosystem c-Grassland ecosystem d-Desert ecosystem Ans-c
3	About ___ km2 of the earth's surface is covered with grasslands which make up about 32% of the plant cover of the world. a-$4.6*10^7$ b-$4.6*10^6$ c-$4.6*10^5$ d-$4.6*10^8$ Ans-a
4	About $4.6*10^7$ km2 of the earth's surface is covered with grasslands which make up about ____ of the plant cover of the world. a-35% b-32% c-30% d-28% Ans-b
5	Basically, How many types of ecosystem are there? a-5 b-4 c-3 d-2 Ans-d
6	Which of the following not covered in terrestrial? a-forest b-grass land c-streams d-desert Ans-c
7	Which of the following are covered in terrestrial? a-forest b-grass land c-desert d-all of the above Ans-d
8	Lotic water means___

	a-running b-standing c-both a and b d-neutral Ans-a
9	Lentic water means___ a-running b-standing c-both a and b d-neutral Ans-b
10	Which of the following not fall in running water/lotic water? a-streams b-rivers c-pond d-all of the above Ans-c
11	Which of the following not fall in standing water/lentic water? a-streams b-lake c-pond d-all of the above Ans-a
12	Which of the following fall in running water/lotic water? a-streams b-rivers c-both a and b d-none of the above Ans-c
13	Which of the following fall in standing water/lentic water? a-streams b-lake c-pond d-both b and c Ans-d
14	The world's aquatic ecosystem covers approximately ___% of Earth's surface. a-85 b-81 c-71 d-68 Ans-c
15	Fresh water ecosystems contain ___% of the world's known fish species. a-51 b-41 c-35 d-30

	Ans-b
16	Marine ecosystems contribute ___ % to the net primary productivity of the world. a-35 b-34 c-32 d-30 Ans-c
17	Fresh water ecosystem contribute ___ % to the net primary productivity of the world. a-8 b-5 c-3 d-2 Ans-c
18	Which ecosystem plays an important role in the Earth's biological productivity, climate, biogeochemical cycle, and biodiversity? a-forest b-grass land c-aquatic d-desert Ans-c
19	The arid regions are called: a-desert b-forest c-grass land d-none of the above Ans-a
20	Sun is the ___ source of energy for every ecosystem. a-primary b-secondary c-tertiary d-all of the above Ans-a
21	The energy flow of an ecosystem starts with ____ a-decomposition b-respiration c-photosynthesis d-transpiration Ans-c
22	The energy flow of an ecosystem starts with photosynthesis And ends with ___ through metabolic processes. a-decomposition b-respiration c-evaporation d-transpiration

	Ans-b
23	____: parasite benefits at the expense of the host. a-Parasitism b-Mutualism c-Commensalism d-all of the above Ans-a
24	____: both organisms benefit from the association. a-Parasitism b-Mutualism c-Commensalism d-all of the above Ans-b
25	____: one organism is benefited and the other is unharmed. a-Parasitism b-Mutualism c-Commensalism d-all of the above Ans-c
26	___is a specific type of amensalism, in which one organism produces a metabolite that is toxic to other organisms. a-Parasitism b-Mutualism c-Commensalism d-Antibiosis Ans-d
27	___is an interspecific relationship in which one population is inhibited while the other is unaffected. a-Amensalism b-Mutualism c-Commensalism d-Antibiosis Ans-d
28	Which of the following are the two major types of aquatic ecosystems? a-marine water b-fresh water c-both a and b d-none of the above Ans-c
29	Which of the following are types of artificial ecosystem? a-agriculture b-urban c-industrial ecosystem d-all of the above Ans-d
30	Which of the following are the types of natural ecosystem?

	a-terrestrial b-aquatic c-marine d-both a and b Ans-d
31	Estuaries, coastlines, coral reefs are the types of _____ a-fresh water b-marine water c-lake water d-pond water Ans-b
32	Lakes, ponds, streams, rivers are the types of _____ a-fresh water b-marine water c-ocean water d-coastal water Ans-a
33	Which of the following are the examples of biotic components? a-animals b-plants c-fungi d-all of the above Ans-d
34	Which of the following are the examples of abiotic components? a-temperature b-air currents c-water d-all of the above Ans-d
35	Which of the following are the not examples of abiotic components? a-temperature b-air currents c-water d-animals Ans-d
36	Which of the following are the not examples of biotic components? a-animals b-air currents c-fungi d-plants Ans-b
37	___also called autotrophs. a-producers b-consumers c- decomposer d-none of the above

	Ans-a
38	____also called heterotrophs. a-producers b-consumers c- decomposer d-none of the above Ans-b
39	____also called detritivores, break down chemicals from consumers and producers into simpler forms that are used again. a-producers b-consumers c- decomposers d-none of the above Ans-c
40	Which of the following are the examples of decomposers? a-bacteria b-flies c-fungi d-all of the above Ans-d
41	Which of the following are the examples of producers? a-bamboo b-banana tress c-bees d-all of the above Ans-d
42	Which of the following are the examples of consumers? a-crab b-crocodile c-jaguar d-all of the above Ans-d
43	Which of the following is the component of Ecosystem? a-Food chain b-Food web c-Bio-geo chemical cycles d-All of the above Ans-d
44	___provides water, oxygen and CO2 for plants and animals in an ecosystem. a-the solar energy b-the atmosphere c-the water d-none of the above Ans-b
45	Biotic component divided into ___ categories. a-two

	b-three c-four d-five Ans-b
46	Consumers are divided into ___categories. a-two b-three c-four d-five Ans-b
47	Producers are divided into ___categories. a-two b-three c-four d-five Ans-a
48	Decomposers are divided into ___categories. a-two b-three c-four d-five Ans-a
49	___are animals that feed directly both on plants and animals. a-herbivores b-omnivores c-carnivores d-all of the above Ans-b
50	___are animals that feed directly on plants or algae. a-herbivores b-omnivores c-carnivores d-all of the above Ans-a

Chapter-3	
1	An ecological pyramid is a graphical representation designed to show the _____ a-biomass b-productivity c-both a and b d-none of the above Ans-c
2	____shows the numbers of organisms at each trophic level in a food chain. a-pyramid of numbers b-pyramid of biomass c-pyramid of energy

	d-all of the above Ans-a
3	____shows the mass of living organisms at each trophic level in a food chain. a-pyramid of numbers b-pyramid of biomass c-pyramid of energy d-all of the above Ans-b
4	____shows the flows of matter and energy at each trophic level in a food chain. a-pyramid of numbers b-pyramid of biomass c-pyramid of energy d-all of the above Ans-c
5	In pyramid of energy units used for are usually in a-kJ/m2y b-kJ/my c-kJ/m2y2 d-kJ/my2 Ans-a
6	A biome is a large region such as tropical rainforests, tundra, deserts, characterized by species adapted to it. a-true b-false Ans-a
7	Only ___% of the energy available in food is incorporated into biomass. a-10 b-20 c-25 d-30 Ans-a
8	Only 10% of the energy available in food is incorporated into biomass, the remaining ____% is lost. a-80 b-85 c-90 d-95 Ans-c
9	kJ/m2y units used for ___ a-pyramid of numbers b-pyramid of biomass c-pyramid of energy d-all of the above Ans-c
10	Ecological pyramids begin with ____ on the bottom and proceed through the various trophic levels.

	a-producers b-consumers c-decomposers d-detritus Ans-a
11	How many types are there in ecological pyramids? a-2 b-3 c-4 d-5 Ans-3
12	Which of the following are types of ecological pyramids? a-pyramid of numbers b-pyramid of biomass c-pyramid of energy d-all of the above Ans-d
13	In pyramid of biomass, biomass should be___ a-dry mass b-wet mass c-semisolid mass d-all of the above Ans-a
14	The missing mass, which is not eaten by consumers becomes ___ a-producers b-consumers c- detritus d-none of the above Ans-c
15	The missing mass, which is not eaten by ____ becomes detritus. a-producers b-consumers c- decomposer d-none of the above Ans-b
16	Pyramid of biomass usually produce____ a-downward pyramid b-upright pyramid c-middle pyramid d-all of the above Ans-b
17	The missing energy, which is not passed on to the next level, is lost eventually as___ a-food b-heat c-both a and b

	d-none of the above Ans-b
18	____ is much smaller than a biome. a-ecology b-ecosystem c-environment d-none of the above Ans-b
19	A biome can be thought of many similar ___ throughout the world grouped together. a-ecology b-ecosystem c-environment d-none of the above Ans-b
20	____extends from the deepest ocean floor, 20 kms below the sea level, to the tops of the highest mountains. a-Ecology b-Ecosystem c-Environment d-Biosphere Ans-d
21	Biosphere extends from the deepest ocean floor, ____ kms below the sea level, to the tops of the highest mountains. a-20 b-30 c-40 d-50 Ans-a
22	Trophic structure describes the system or organization of organisms into different trophic levels. a-true b-false Ans-a
23	Trophic structure is defined as the partitioning of biomass between trophic levels. a-true b-false Ans-a
24	A linear pathway showing the flow of energy: a-food chain b-food web c-food energy d-none of the above Ans-a
25	A multitude of networks showing the flow of energy:

	a-food chain b-food web c-food energy d-none of the above Ans-b
26	In _____, an organism of higher level trophic feeds on a specific organism of lower trophic level. a-food chain b-food web c-food energy d-none of the above Ans-a
27	In _____, an organism of higher trophic level has access to more members of a lower trophic level. a-food chain b-food web c-food energy d-none of the above Ans-b
28	An ecological pyramid is a graphical representation designed to show the biomass and productivity a-true b-false Ans-a
29	Pyramid of biomass shows the numbers of organisms at each trophic level in a food chain. a-true b-false Ans-b
30	Pyramid of biomass shows the mass of living organisms at each trophic level in a food chain. a-true b-false Ans-a
31	The missing mass, which is not eaten by consumers becomes detritus. a-true b-false Ans-a
32	Ecology is much smaller than a biome. a-true b-false Ans-b
33	Pyramid of biomass usually produce upright pyramid a-true b-false Ans-a

34	Ecological pyramids begin with producers on the bottom and proceed through the various trophic levels. a-true b-false Ans-a
35	Ecological pyramids begin with consumers on the bottom and proceed through the various trophic levels. a-true b-false Ans-b
36	Ecological pyramids begin with decomposers on the bottom and proceed through the various trophic levels. a-true b-false Ans-b
37	kJ/m2y units used for pyramid of numbers a-true b-false Ans-b
38	kJ/m2y units used for pyramid of energy a-true b-false Ans-a
39	kJ/m2y units used for pyramid of biomass a-true b-false Ans-b
40	In pyramid of biomass, biomass should be dry mass a-true b-false Ans-a
41	In pyramid of biomass, biomass should be wet mass a-true b-false Ans-b
42	Only 10% of the energy available in food is incorporated into biomass, the remaining 90 % is lost. a-true b-false Ans-a
43	Only 10% of the energy available in food is incorporated into biomass, the remaining 80 % is lost. a-true b-false Ans-b
44	Only 10% of the energy available in food is incorporated into biomass, the

	remaining 50 % is lost. a-true b-false Ans-b
45	Only 10% of the energy available in food is incorporated into biomass, the remaining 60 % is lost. a-true b-false Ans-b
46	A linear pathway showing the flow of energy in food chain. a-true b-false Ans-a
47	In food chain Mangrove Leaves eaten by___ a-Grouped as phytoplanktonic b-small animals c-birds d- fungi & bacteria Ans-d
48	In food chain Fungi & Bacteria eaten by___ a-Grouped as phytoplanktonic b-small animals c-birds d-large fish Ans-a
49	In food chain Large fish eaten by___ a-Grouped as phytoplanktonic b-small animals c-birds d-fungi & bacteria Ans-c
50	In food chain Small fish eaten by___ a-Grouped as phytoplanktonic b-small animals c-birds d-large fish Ans-d

Chapter-4	
1	Water gets evaporated from water surfaces and land surfaces, get converted into water drops at lower temperatures, flows over ground surface and finally meets its source, i.e. lake, sea, etc. This entire process is generally known as a- Hydrological cycle b- Water cycle c- Evaporation and precipitation cycle d- All the above

	Ans-d
2	Ocean is a source for carbon monoxide. a- True b- False Ans-a
3	The protocol which decided to completely phase out CFC is a- Cartagena protocol b- Stockholm Convention c- Montreal protocol d- Kyoto protocol Ans-c
4	Ozone of found in a- Mesosphere b- Ionosphere c- Stratosphere d- Exosphere Ans-c
5	Which of the following indicates the correct order of the principal layers of the earth's atmosphere from top to bottom? a) Troposphere – Stratosphere – Mesosphere – Thermosphere – Exosphere b) Thermosphere – Stratosphere – Troposphere – Mesosphere – Exosphere c) Exosphere – Thermosphere – Mesosphere – Stratosphere – Troposphere d) Exosphere – Mesosphere – Thermosphere – Stratosphere – Troposphere Ans-c
6	The solar energy evaporates water from the earth's surface in to the atmosphere. This constant motion of water is known as : a- Hydrological cycle b- Water cycle c- Evaporation and precipitation cycle d- All the above Ans-d
7	The conversion of liquid water from ocean, lakes, streams and other bodies of water to water vapor known as: a-Evaporation b-Transmission c-Precipitation d-Infiltration Ans-a
8	The carbon cycle is based on carbon dioxide gas, which makes up about ____ % of the volume of the troposphere and is also dissolved in water. a-0.040 b-0.038 c-0.036 d-0.034 Ans-b
9	Which of the following activities emits carbon dioxide in atmosphere?

	a-volcanic eruptions b-burning of wood c-burning of fossil fuel d-all of the above Ans-d
10	Approximately ___% of world's carbon is found in the ocean. a-95 b-90 c-85 d-80 Ans-c
11	The terrestrial and aquatic life removes carbon dioxide from troposphere to convert it into ___. a-glucose b-sucrose c-lactose d-fructose Ans-a
12	Which of the following forms carbon is found on the planet? a-as organic molecules in living and dead organisms b-as organic matter in soils c-as fossil fuel and sedimentary rock d-all of the above Ans-d
13	Gradual build up of CO2 in the atmosphere causing a-Global warming b-Green house effect c-both a and b d-none of the above Ans-c
14	Nitrogen in its gaseous form(N2) constitutes ___% of the volume of atmosphere. a-75 b-78 c-80 d-73 Ans-b
15	Nitrogen is cycled via how much process? a-2 b-3 c-4 d-5 Ans-b
16	Which process carried out by certain type of bacteria in aquatic system, in the soil and in the roots of some plants? a-Ammonification b-Biological nitrogen fixation

	c-Denitrification d-All of the above Ans-b
17	Bacteria convert this detritus in to simpler nitrogen containing inorganic compounds such as ammonia known as: a-Ammonification b-Biological nitrogen fixation c-Denitrification d-All of the above Ans-a
18	Ultimately, nitrogen leaves the soil through a process called: a-Ammonification b-Biological nitrogen fixation c-Denitrification d-All of the above Ans-c
19	The denitrifying bacteria convert ammonia and NH4+ ions back into nitrogen gas and _____gas. a-NO2 b-NO3 c-N2O d-N2O2 Ans-c
20	_____, the process by which green plants and certain other organisms transform light energy into chemical energy. a-respiration b-evaporation c-photosynthesis d-transpiration Ans-c
21	The process of releasing energy by the oxidation of food is known as: a-respiration b-evaporation c-photosynthesis d-transpiration Ans-a
22	Who plays an important role in the growth of living tissue? a-carbon b-nitrogen c-phosphorus d-sulphur Ans-c
23	Some sulphates are reduced under anaerobic conditions directly to sulphides by a class of bacteria known as: a-desulfovibrio bacteria b- vibrio bacteria

	c- trisulfovibrio bacteria d-thiobacillus bacteria Ans-a
24	In the presence of oxygen, H2S is rapidly oxidized to sulphates by bacteria of a-desulfovibrio bacteria b- vibrio bacteria c- trisulfovibrio bacteria d-thiobacillus bacteria Ans-d
25	In the absence of oxygen, which bacteria oxidize H2S to elemental sulphur? a- thiobacillus bacteria b-chlorobacteriaceae c-thiorhodaceae d-both b and c Ans-d
26	Sulphur trioxide (SO3) which dissolves in water droplets to form ____ a-H2SO4 b-H2SO3 c-HSO4 d-none of the above Ans-a
27	The land plants take the inorganic phosphate salts from the soil and convert them into ___ a-ATP b-ADP c-both a and b d-none of the above Ans-c
28	The main reservoir of phosphorus on land are____ a-sand b-grit c-rock d-marble Ans-c
29	The main reservoir of phosphorus on land are____ a-sand b-natural phosphate deposits c-rock d-both b and c Ans-d
30	Which of the following human activities affect the carbon cycle? a-combustion of fossil fuel b-clearing trees and other plants c-industrial activities d-all of the above Ans-d

31	____ is the process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers. a-respiration b-evaporation c-photosynthesis d-transpiration Ans-d
32	_____are the pathways describing the movement of sulfur, oxygen, hydrogen, phosphorus, nitrogen etc. a-hydrologic cycles b-bio-geo chemical cycles c-oxygen cycles d-nitrogen cycles Ans-b
33	Bio-geo chemical cycles are the pathways describing the movement of elements such as: a-sulfur b-oxygen c-nitrogen d-all of the above Ans-d
34	In respiration process releasing of energy by the ____of food a-reduction b-oxidation c-decomposition d-all of the above Ans-b
35	____are the main reservoir of phosphorus on land. a-sand b-grit c-rock d-marble Ans-c
36	Bio-geo chemical cycles are the pathways describing the movement of elements such as: a-phosphorus b-oxygen c-nitrogen d-all of the above Ans-d
37	ATP means____ a-adenosine triphosphate b-adenosine tetraphosphate c-both a and b d-none of the above Ans-a

38	ADP means____ a-adenosine diphosphate b-adenosine diphosphorus c-adenosine disulphate d-none of the above Ans-a
39	Which of the following are the activities interfere with nitrogen cycle? a-fuel burning b-anaerobic conversion of dung c-deforestation d-all of the above Ans-d
40	Which of the following are not the activities interfere with nitrogen cycle? a-fuel burning b-anaerobic conversion of dung c-deforestation d-land degradation Ans-d
41	Which of the following human activities not affect the carbon cycle? a-combustion of fossil fuel b-clearing trees and other plants c-industrial activities d-land degradation Ans-d
42	____ is the process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers. a-respiration b-evaporation c-photosynthesis d-transpiration Ans-d
43	Bio-geo chemical cycles also known as a-life earth chemical cycles b-life cycles c-life-geo chemical cycles d-all of the above Ans-a
44	Bio-geo chemical cycles also known as life earth chemical cycles. a-true b-false Ans-a
45	Transpiration is the process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers. a-true b-false

	Ans-a
46	_____ in its gaseous form constitutes 78 % of the volume of atmosphere. a-nitrogen b-sulfur c-oxygen d-carbon Ans-a
47	Approximately 85 % of world's ____ is found in the ocean. a-nitrogen b-sulfur c-oxygen d-carbon Ans-d
48	The carbon cycle is based on carbon dioxide gas, which makes up about ____ % of the volume of the troposphere and is also dissolved in water. a-0.040 b-0.038 c-0.036 d-0.034 Ans-b
49	_____makes up about 0.038 % of the volume of the troposphere and is also dissolved in water. a-nitrogen b-sulfur c-oxygen d-carbon Ans-d
50	Carbon makes up about 0.038 % of the volume of the _____ a-troposphere b-stratosphere c-mesosphere d-thermosphere Ans-a

Chapter-5	
1	Which of the following is not regarded as the cause of land degradation? a- Deforestation b- Depletion of Ozone layer c- Agricultural Mismanagement d- Industrialization Ans-b
2	With reference to Eutrophication, Which of the following is/are true? 1. It is phenomenon of nutrient enrichment of a water body 2. It depletes the water of dissolved oxygen (DO). 3. Human activities are mainly responsible for the eutrophication Select the correct answer from the following codes

	a- Only 1 b- Only 1 and 2 c- Only 2 and 3 d- 1,2 and 3 Ans-d
3	With reference to sources of water pollution, which of the following is/are true? 1. Natural sources 2. Domestic sources 3. Agricultural sources 4. Industrial sources Select the correct answer from the following codes a- Only 4 b- Only 2, 3 and 4 c- Only 3 and 4 d- 1,2, 3 and 4 Ans-d
4	Baval trees should be planted and used to prevent and control a- Water pollution b- Air pollution c- Soil pollution d- Noise pollution Ans-b
5	Consider the following statement regarding desertification: I. It can be defined as 'the diminution or destruction of the biological potential of the land which can ultimately lead to desert like conditions'. II. The arid and semi-arid areas where climate is dry, restoration is very slow, mining and overgrazing etc. adds to several other desertification pressures. III. Desertification is a systemic phenomenon resulting from excessive felling of trees which manifests itself in the loss of soil fertility, high wind velocity, low precipitation, increasing aridity and extremes of temperatures in the affected area. Which of the following statement(s) is/are correct? a- Only I b- I and II c- I and III d- All of the above Ans-d
6	Which of the following chemicals cause water pollution? 1. Arsenic 2. Copper 3. Zinc Select the correct answer from the following codes a- Only 1 b- Only 1 and 2 c- Only 2 and 3 d- 1,2 and 3

	Ans-d
7	Which of the following chemicals not cause water pollution? a- Arsenic b- Copper c- both a and b d-none of the above Ans-d
8	With reference to Eutrophication, Which of the following is/are true? a- It is phenomenon of nutrient enrichment of a water body b- It depletes the carbon level of water body c- Human activities are mainly responsible for the eutrophication d-both a and c Ans-d
9	Which of the following is not regarded as the cause of water pollution? a- Natural sources b- Domestic sources c- Agricultural sources d- Industrial sources Ans-
10	The process of enhanced biological productivity in a body of water is called _____ a-Eutrophication b-Nitrification c-Both a and b d-None of the above Ans-d
11	Which of the following are the effects of eutrophication? a-Increase in turbidity of water b-Increase in rate of sedimentation c-Increase in the frequency of algal blooms d-All of the above Ans-d
12	Which of the following are the steps taken to control Eutrophication? a-controlling the growth of plants b-reducing the inputs of nutrients c-both a and b d-none of the above Ans-c
13	_____may be defined as the presence of substances in such concentration of such characteristics and of such duration that make the air harmful or dangerous to breathe or to cause damage to plants, animals and properties. a-Air pollution b-Water pollution c-Land pollution d-Noise pollution Ans-a

14	Air pollution can occur as in Micro sale then it will be considered as: a-Indoor air pollution b-Outdoor air pollution c-Air pollution at global scales d-All of the above Ans-a
15	Air pollution can occur as in Meso sale then it will be considered as: a-Indoor air pollution b-Outdoor air pollution c-Air pollution at global scales d-All of the above Ans-b
16	Air pollution can occur as in Macro sale then it will be considered as: a-Indoor air pollution b-Outdoor air pollution c-Air pollution at global scales d-All of the above Ans-c
17	____is a term which refers to soil loss due to the mobilization of top soil by the forces of water and wind. a-salinization b-erosion c-depletion d-none of the above Ans-b
18	Erosion occur by the forces of ____ and ____ a-water, wind b-air, water c-soil, water d-land, air Ans-a
19	What causes soil erosion and desertification? a-over cultivation b-over grazing c-deforestation d-all of the above Ans-d
20	Water act comes in which year? a-1972 b-1974 c-1980 d-1985 Ans-b
21	Water cess act comes in which year? a-1972 b-1974

	c-1977 d-1985 Ans-c
22	Environment protection act comes in which year? a-1985 b-1986 c-1989 d-1992 Ans-b
23	Effects of water pollution can be broadly classified into ___ categories. a-3 b-4 c-5 d-6 Ans-b
24	____are those emitted directly to the atmosphere. a-primary pollutant b-secondary pollutant c-tertiary pollutant d-all of the above Ans-a
25	____are those formed in the atmosphere by chemical reaction in the presence of sunlight. a-primary pollutant b-secondary pollutant c-tertiary pollutant d-all of the above Ans-b
26	___ is an excessive or annoying degree of noise in a particular area. a-Air pollution b-Water pollution c-Land pollution d-Noise pollution Ans-d
27	Sources of noise can be broadly identified under ___ categories. a-4 b-3 c-5 d-6 Ans-b
28	How many types of marine pollution are there? a-4 b-5 c-6 d-7 Ans-a

29	Which of the following are the sources of marine pollution? a-inflow of chemicals b-solid waste c-discharge of radioactive elements d-all of the above Ans-d
30	Which of the following are the types of marine pollution? a-eutrophication b-acidification c-toxins d-all of the above Ans-d
31	Which of the following are not the types of marine pollution? a-eutrophication b-acidification c-soil erosion d-toxins Ans-c
32	An increase in the optimum water temperature by industrial process (steel factories, electric power houses and atomic power plants) may be called as: a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-a
33	_____ occurs when there is presence or depositions of radioactive materials in the atmosphere or environment. a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-b
34	Which of the following are the causes of Radio-active pollution? a-Nuclear accidents from nuclear energy generation plants b- The use of nuclear weapons as weapons of mass destruction (WMD) c- Use of radio isotopes d-all of the above Ans-d
35	Full form of WMD____ a- weapons of mass destruction b-weapons of man destruction c- weapons of major destruction d-none of the above Ans-a
36	Which of the following are the effects of Radio-active pollution?

	a-diseases b-soil infertility c-genetic mutations d-all of the above Ans-d
37	Proper labeling is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-b
38	Banning of nuclear test is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-b
39	Artificial lake is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-a
40	Cooling pond is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-a
41	Cooling tower is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-a
42	Stop using plastic is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-c
43	Prevent from any oil or chemical spill in the oceans is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution

	d-none of the above Ans-c
44	During United Nations Conventions on the Law of the Sea in the early _____s, the various stakeholders come together to deliberate and formulate laws pertaining to marine pollution. a-1960 b-1950 c-1970 d-1980 Ans-b
45	Proper storage is the solution of which pollution? a-thermal pollution b-radio-active pollution c-marine pollution d-none of the above Ans-b
46	Sources of noise can be classified in ___categories. a-4 b-3 c-5 d-6 Ans-b
47	Which of the following are the causes of water pollution? a-pesticides b-mining c-plastics d-all of the above Ans-d
48	EOP (end of pipe treatment) is the solution of which pollution? a-water pollution b-noise pollution c-air pollution d-marine pollution Ans-a
49	Reduction at the source is the solution of which pollution? a-water pollution b-noise pollution c-air pollution d-marine pollution Ans-a
50	End of pipe treatment short form___ a-EPT b-EOP c-EOPT d-none of the above Ans-b

1. End of pipe treatment short form EOP
2. Cooling pond is the solution of thermal pollution
3. Artificial lake is the solution of thermal pollution.
4. Proper labeling is the solution of radio-active pollution.
5. Full form of WMD weapons of mass destruction
6. Radio-active pollution occurs when there is presence or depositions of radioactive materials in the atmosphere or environment.
7. Noise pollution is an excessive or annoying degree of noise in a particular area.
8. Secondary pollutant are those formed in the atmosphere by chemical reaction in the presence of sunlight.
9. Primary pollutant are those emitted directly to the atmosphere.
10. Environment protection act comes in 1986.

Chapter-6	
1	With reference to effect of green house gases, which of the following is/are true? 1. Changes to plant growth and nutrition levels 2. Ozone depletion 3. Smog pollution Select the correct answer from the following codes a. Only 1 b. Only 1 and 2 c. Only 2 and 3 d. 1, 2 and 3 Ans-d
2	Which of the following is on the list of Global Environmental issues? a. green house effect and global warming b. biodiversity loss c. desertification d. All of the above Ans-d
3	Consider the following statements 1. Burning of fossil fuel, wood and crop residues all produce lot of Oxides of nitrogen 2. Sulphur dioxide is major pollutant released from oil refineries. Select the correct answer from the following codes a. Only 1 b. Only 2 c. Both 1 and 2 d. Neither 1 nor 2 Ans-b
4	At the global scale relative contributions of CO_2, CH_4, $N_2O$and CFCs towards

	global warming are: a. 50 %, 30 %, 10 % , and 10 % respectively b. 76%, 16%, 6%, and 2% respectively c. 40 %, 30%, 20% and 10% respectively d. None of the above Ans-b
5	Ozone is formed in the upper atmosphere by a photochemical reaction with a-Ultra violet solar radiation b-Infra red radiation c-Visible light d-All of the above Ans-a
6	With reference to effect of green house gases, Which of the following is/are true? 1. Changes to plant growth and nutrition levels 2. Ozone depletion 3. Smog pollution Select the correct answer from the following codes a. Only 1 b. Only 1 and 2 c. Only 2 and 3 d. 1,2 and 3 Ans-d
7	Depletion of ozone layer causes, Which of the following? 1. Cataract in eyes leading to blindness 2. Reduced productivity of forests 3. Lung infection Select the correct answer from the following codes a. Only 1 b. Only 1 and 2 c. Only 2 and 3 d. 1,2 and 3 Ans-b
8	Which of the following is/are not Green House Gases? 1. Nitrous oxide 2. Ozone 3. Sulphur dioxide Select the correct answer from the following codes a. Only 3 b. Only 1 and 2 c. Only 2 and 3 d. 1,2 and 3 Ans-a
9	____is region's long term atmospheric conditions typically over decades. a-climate b-precipitation

	c-temperature d-all of the above Ans-a
10	Which factor determining a region's climate and its effect on people? a-average temperature b- average humidity c- average visibility d- average height Ans-a
11	Which factor determining a region's climate and its effect on people? a-average precipitation b- average humidity c- average visibility d- average height Ans-a
12	____is an average weather patterns for an area over a long period of time. a-Earth b-Atmosphere c-Climate d-None of the above Ans-c
13	The trapped heat energy causes the inside air temperature to rise and keeps it warmer than the surroundings. These phenomenon is known as___ a-Global warming b-Acid rain c-Green house effect d-Ozone depletion Ans-c
14	CO2 is the main green house gas. It's residence time in the atmosphere is ____ years. a-150 b-120 c-200 d-250 Ans-b
15	Methane gas contribution in global warming works out to be about __ % as compared to carbon dioxide. a-10 b-20 c-50 d-80 Ans-a
16	Residence time of methane in the atmosphere is ___ years. a-15 b-17 c-13

	d-10 Ans-c
17	Residence time of Nitrous oxide in the atmosphere is ___ years. a-135 b-132 c-110 d-100 Ans-b
18	____is also known as laughing gas. a-Nitrous oxide b-Methane c-Carbon dioxide d-CFC Ans-a
19	Nitrous oxide gas contribution in global warming works out to be about __ % as compared to carbon dioxide. a-13 b-16 c-18 d-20 Ans-b
20	CFC & HCFC contribution in global warming works out to be ____times as compared to carbon dioxide. a-12000 to 16000 b-16000 to 18000 c-18000 to 22000 d-22000 to 25000 Ans-a
21	Residence time of CFC-11 in the atmosphere is___ years. a-50 b-55 c-60 d-65 Ans-b
22	Residence time of CFC-12 in the atmosphere is___ years. a-115 b-116 c-117 d-118 Ans-b
23	It is estimated that 50 to 60% of the green house effect due to human activities associated with which gas? a-Methane b-Carbon dioxide

	c-CFC d-Nitrous oxide Ans-b
24	____ is defined as a natural or human induced increase in the average global temperature of the atmosphere near earth's surface and in the troposphere. a-Global warming b-Green house effect c-Acid rain d-Ozone layer depletion Ans-a
25	Who has estimated that doubling of CO2 would lead to an increase in the global temperature by 1.5 to 45 °C. a-CPCC b-LPCC c-IPCC d-None of the above Ans-c
26	IPCC has estimated that doubling of CO2 would lead to an increase in the global temperature by ____. a-1.5 to 50 °C b-1.5 to 45 °C c-1.5 to 60 °C d-None of the above Ans-b
27	Which of the following are the causes of climate change? a-natural factors b-natural processes c-human activities d-all of the above Ans-d
28	___ refers to any significant change in climate factors such as temperature, precipitation or wind, lasting for an extended period. a-climate change b-global warming c-green house effect d-all of the above Ans-a
29	Which of the following not considered as physical impact of climate change? a-average global land and sea temperatures are rising b-glaciers are melting c-people are already being displaced by rising sea levels d-fresh water resources are diminishing Ans-c
30	Which of the following not considered as social impact of climate change? a-average global land and sea temperatures are rising b-agriculture and food supply is being affected by droughts

	c-people are already being displaced by rising sea levels d-insurance costs are increasing rapidly Ans-a
31	Which of the following considered as social impact of climate change? a-agriculture and food supply is being affected by droughts b-people are already being displaced by rising sea levels c-insurance costs are increasing rapidly d-all of the above Ans-d
32	Which of the following considered as physical impact of climate change? a-average global land and sea temperatures are rising b-glaciers are melting c-fresh water resources are diminishing d-all of the above Ans-d
33	Acid rain first discovered in which year? a-1850 b-1852 c-1860 d-1865 Ans-b
34	Acid rain is defined as precipitation in which pH is below___. a-5.6 b-5.7 c-5.8 d-5.9 Ans-a
35	English chemist Robert Agnus Smith invented the term___ a-Global warming b-Acid rain c-Green house effect d-Ozone depletion Ans-b
36	Acid rain is the result of ____ and ____ reacting in the atmosphere with water. a-CO2 , NOx b-CO2, SO2 c-SO2, NOx d-SOx, CO Ans-c
37	Nirogen pentoxide(N2O5) react with H2O to produce___ a-nitric oxide b-nitric acid c-nitrogen peroxide d-none of the above Ans-b
38	Approximately ___% of the ozone in the atmosphere is found in the stratosphere.

	a-99 b-90 c-95 d-100 Ans-b
39	The ozone layer in the stratosphere is often called the_____ a-protective shield b-ozone shield c-covering shield d-none of the above Ans-b
40	Approximately 90% of the ozone in the atmosphere is found in the stratosphere, where the peak concentrations are about ___ppb. a-400 b-300 c-500 d-600 Ans-b
41	The average amount of ozone in the atmosphere is roughly ___DU. a-400 b-300 c-500 d-600 Ans-b
42	Any place where the concentration drops below ____ Dobson units is considered as part of the ozone hole. a-300 b-250 c-220 d-150 Ans-c
43	Average concentration in the ozone hole is around ___Dobson Units. a-150 b-100 c-50 d-30 Ans-b
44	___ are type of halogenated hydrocarbons. a-CFCs b-Methane c-CO2 d-Sox Ans-a
45	Which of the following are the effects of ozone layer depletion/ozone hole? a-a higher incidence of cataracts and skin cancer b-suppression of the immune system

	c-increased UV radiation damages materials, paints, Plastics and rubber d-all of the above Ans-d
46	___is a disruption of the ocean atmosphere system in the tropical Pacific having important consequences for weather and climate around the globe. a-EI Nino b-La Nino c-both a and b d-none of the above Ans-a
47	___cools some coastal surface waters and is associated with cooler than normal water temperature in the equatorial Pacific ocean. a-EI Nino b-La Nino c-both a and b d-none of the above Ans-b
48	Which steps can be taken to overcome the problem of ozone layer depletion? a-substitution with chemicals which have low ozone depleting potential b-releasing ozone in to the ozone layer c-breaking the chlorine molecules d-all of the above Ans-d
49	The concentration of methane in air is less than___ ppm. a-1 b-2 c-3 d-4 Ans-b
50	The concentration of nitrous oxide in air is ___ ppm. a-0.1 b-0.2 c-0.3 d-0.4 Ans-c

UNIT 2

1. The arid regions are called desert
2. Sun is the primary source of energy for every ecosystem
3. The energy flow of an ecosystem starts with photosynthesis
4. Parasitism parasite benefits at the expense of the host
5. Commensalism one organism is benefited and the other is unharmed.

6. Antibiosis is a specific type of amensalism, in which one organism produces a metabolite that is toxic to other organisms
7. Estuaries, coastlines, coral reefs are the types of marine water.
8. Producers also called autotrophs
9. Consumers also called heterotrophs
10. Decomposers also called detritivores, break down chemicals from consumers and producers into simpler forms that are used again.