



**DEPARTMENT OF CHEMISTRY**

**ENVIRONMENTAL STUDIES**

**MODULE 1 - ECOSYSTEM AND SUSTAINABILITY**

S.NO	QUESTIONS	A	B	C	D
1	Environmental means	Surroundings	Atmosphere around one self	Sum total of social, economical, biological behaviour of animals	Sum total of development activities around
2	Unsustainable development is a result of	Importance given to only economic & social patterns	No concern was given to maintain quality & quality	orientation only towards the importance of economy	All the above
3	Which of it is not an example for an ecosystem	Forest	Desert	Water	Grassland
4	Nutrients cycling is most related to appropriately	Energy, waste, nutrients	Autotrophs, nutrients, decomposers	Light, weight, nutrients	None of these
5	More crop per drop related to increase in food production is an objective of	EIA	FAO	ICID	EIS
6	Green revolution is	Crop variety improvements	Increased use of fertilizers	Expansion of irrigation	All the above
7	Food security ensures	Each person should have a access to food	Food utilized must full fill nutritional requirements	Food must be available	All the above
8	Habitat refers to	Physical conditions of the places where organism live	Chemical conditions of the place where organism live	Both A & B	Neither A nor B
9	Important physical factor responsible for a good habitat of a organism	Light	Temperature	Humidity	All the above

10	which of the following is not a prominent chemical responsible for a good habitat	Oxygen	Carbon dioxide	Sulphur dioxide	Nutrients (minerals)
11	The term Environment has been derived from the French word_____ which means surround or encircle	Environ	Oikos	Geo	Aqua
12	The objective of environmental education is	Raise consciousness about environmental conditions	To teach environmentally appropriate behaviour	Create an environmental ethic	All the above
13	Which of the following conceptual spheres of the environment is having the least storage capacity for matter?	Atmosphere	Lithosphere	Hydrosphere	Biosphere
14	Atmosphere consists of 79% nitrogen and 21% oxygen by	Volume	Weight	Density	All the above
15	Which of the following is a biotic component of an ecosystem?	Fungi	Solar light	Temperature	Humidity
16	In an ecosystem, the flow of energy is	Bidirectional	Cyclic	Unidirectional	Multidirectional
17	The organism who directly feed on producers are called	Herbivores	Carnivores	Decomposers	saprophytes
18	The sequence of eating and being eaten in an ecosystem is called	Food chain	Carbon cycle	Hydrological cycle	Anthropos stem
19	Which of the following is a producer in an ecosystem	Plants & some bacteria capable of producing their own food	Animals	Human beings	Fish
20	Which of the following statements is false?	Inorganic nutrients are recycled in an ecosystem	Energy flows through the ecosystem in the form of carbon- carbon bond	Energy is recycled in an ecosystem	Respiration process releases energy
21	The largest reservoir of nitrogen in our planet is	Oceans	Atmosphere	Biosphere	Fossil fuels
22	In aquatic ecosystem phytoplankton can be considered as a	Consumer	Producer	Saprotrophic organism	Macroconsumer
23	The basic requirements of human beings are provided by	Industrialisation	Agriculture	Nature	Urbanisation
24	Environment is the life support system	Air	Water	Land	All the above

	that includes				
25	In an ecosystem biological cycling of materials is maintained by	Producer	Consumer	Decomposers	All the above
26	Organism which feed directly or indirectly on producers are called	Prey	Consumer	Decomposers	Detritus
27	The primary producers in a forest ecosystem are	Chlorophyll containing trees and plants	Herbivores	Carnivores	Bacteria & other micro organisms
28	Abiotic component includes	Soil	Temperature	Water	All the above
29	Which of the following statement is true?	Green plants are self-nourishing	Producers depends on consumers	Biotic components includes all non-living organism	Herbivores depend on carnivores
30	Primary consumer is	Herbivores	Carnivores	Macro consumers	Omnivores
31	A predator is	An animal that is fed upon	An animals that feeds upon another animal	An animal that feeds upon both plants and animals	A primary consumer
32	Access to food is mainly determined by	Household income	Food assistance program	Human resources	Society/community
33	The word environment is derived from	Greek	French	Spanish	English
34	Which among the following is a climatic factor	Pressure	humidity	Temperature	All the above
35	The major atmospheric gas layer in stratosphere is	Hydrogen	Carbon dioxide	Ozone	Helium
36	Which atmospheric sphere is closest to the earth's surface?	Troposphere	Stratosphere	Mesosphere	Exosphere
37	Which of the following is the terrestrial ecosystem?	Forest	Grassland	Desert	All the above
38	Ecological pyramids are studies of	Pyramid of numbers	Pyramid of biomass	Pyramid of energy	All the above
39	World environment day is on	5th May	5th June	18th July	16th August
40	A food web consists of	A portion of food chain	An organism position in a food chain	Interlocking food chains	A set of similar consumers
41	Which of the following statements are true?	Man is not dependent on nature	Resources are unlimited, so one can use them as per ones wish	Energy can be converted from one form to another, but some % is lost into the environment	Matter can be generated afresh. It need not be recycled or reused
42	Hydrological cycle mainly involves	Sun and water	Air and water	Animals and water	Mountains and water

43	Hydrological cycle related to	Water & electricity	Water cycle & balance	Water characterization	Hydropower
44	Which of the following is not a part of the hydrological cycle?	Precipitation	Infiltration	Transpiration	Perspiration
45	The layer closest to earth's surface among the following	Troposphere	Stratosphere	Mesosphere	Ionosphere
46	Earth is made of three distinct layer	Troposphere, Stratosphere, Mesosphere	Core, mantle, crust	Ozonosphere, thermosphere Ionosphere	Exosphere, heterosphere hydrosphere
47	_____ is termed as the life zone of the earth	Atmosphere	Hydrosphere	Biosphere	Stratosphere
48	Which of the following is not a part of atmosphere?	Hetero sphere	Mesosphere	Biosphere	Stratosphere
49	Mesosphere is characterized by	Low atmospheric pressure & cold temperature	Presence of mainly nitrogen and oxygen	Abrupt changes in velocity of seismic waves	Tremendous temperature of around 5000°C
50	Light a form energy in an ecosystem according to 1st law of energy consumption cannot be	Transformed into work	Transformed into heat	Destroyed completely	Transformed into potential energy of food
51	Fertilizers and pesticides used in agriculture feds are hazardous which of the following is not true above them	They are non-degradable chemicals entering the food charm	Depletes the population of ecologically important soil micro organisms	Several non-target species that are useful to humans are also killed	They cause water logging
52	Which of the following is not an negative effect of irrigation a part of agriculture on environment	High salinity	Release of SO <sub>2</sub>	Water logging	Loss of soil fertility
53	Trickle irrigation reduces	Percolation	Prevent salinization	Evaporation of water	All the above
54	Proper sanitation, sewage collection and disposal facilities are problems	Agriculture	Housing	Industrialization	Mining
55	Mining means	To cheek pollution due to mineral resources	To conserve and preserve the mineral resources	Process of extracting ores to obtain the metal of interest	All the above
56	Sustainable development means	Meeting the needs of the present & their progress without compromising the of future generation to meet their own needs	The release of solid, liquid & gaseous waste products into atmosphere due various developmental	Effective method of providing education employment , social service etc.,	Method of controlling pollution levels, in environment due to development activities

			activities		
57	Features of sustainable development is	Basic needs are satisfied and standard living should be high	Developmental activities are taken care	No depletion and degradation of resources should takes place	All the above
58	Control of population, rectifying the misuse, overuse and exploitation of resources, recycling, replenishing and use of alternate energy resources with minimal pollution levels are important features	Sustainable development	Environmental impact assessment	Urbanization	None of these
59	Environmental impact assessment is a planning tool to	To avoid the upcoming project and developmental activities causing pollution	To destroy the existing and ongoing activities causing negative impacts on the environment	Anticipate future impact and optimal alternative to developmental activities	All the above
60	The important goal of EIA is	Control pollution levels	Resource conservation	Stop development	Provision of basic needs of life
61	Which of the following is not the environment effect in industrialization, in general	Solid waste	Water pollution	Air pollution	Economic growth
62	Which of the following are major environment issues involved in mining?	Air pollution from dust	Water pollution	Soil degradation	All the above
63	Sustainable development means	Meeting present needs without compromising on the future needs	Progress in human well beings	Balance between human needs and the ability of earth to provide the resources	All the above
64	EIA can be expanded as	Environment & industrial act	Environment & impact activities	Environment impact assessment	Environmentally important activity
65	EIA is related to	Resources conservation	Efficient equipment	Waste minimization	All the above
66	In order to protect the health of people living along the adjoining areas of roads, one should	Plant trees alongside of the roads	Not allow diesel driven vehicles	Shift them to other places	None of the above
67	The pollution caused by transportation/ vehicular activities depends on	Type of the vehicle's engine	Age of the vehicle	Traffic congestion	All the above
68	Earth Day is held every year on	June 5th	November 23rd	April 22nd	January 26th
69	Eutrophication is	An improved quality of water	a process in carbon cycle	The result to	A water purification

		in lakes		accumulation of plant nutrients in water bodies	technique
70	Major purpose of most of the Dams around the world is	Power generation	Drinking water supply	Flood control	Irrigation
71	Which of the following is the most environmental friendly agriculture practice	Using chemical fertilizers	Using insecticides	Organic farming	None of the above
72	The adverse effect of modern agriculture is	Water pollution	Soil degradation	Water logging	All the above
73	Soil erosion removes surface soil which contains	Organic matter	Plant nutrients	Both a and b	None of the above
74	Water logging is a phenomena in which	Crop patterns are rotated	Soil root zone becomes saturated due to over irrigation	Erosion of soil	None of the above
75	The impact of construction of dams	Submerges forest	Loss of wild life habitat	Damages downstream ecosystem	All the above
76	Which of the following statement is false	Soil erosion effects the productivity of agriculture fields	It takes 300 years for one inch of agricultural top soil to form	The amount of erosion depends on soil type, slope, drainage pattern and crop management practices	Soil erosion helps to retain water and nutrients in the root zone
77	Farmers have a tendency to	Use optimum quantity of water	To over irrigate their crops	To conserve water	All the above
78	Organic farming is	Farming without using pesticides and Chemical fertilizers	Enhances biodiversity	Promotes soil biological activity	All the above
79	What would you do to prevent environmental damage	Plant trees	Halt deforestation	Control pollution	All the above
80	Environmental impact assessment	Is a study of feasibility of a project	Is a study of bio-physical characteristics of the environment that may result from a human action	Both a and b	None of the above
81	EIA study will help	Maximizing the benefits without overloading the	To estimate the future needs of the society	To smooth implementation	To cope up with rapid growth

		planets ecosysytem		of the project	of population
82	Ecosystem is distributed by housing activity because	Large volume of raw materials like brick, stone, timber, cement, steel plastic etc. are required to be produced	Housing is required to provide shelter to growth population	Majority of housing projects are concentrated in cities only	Standard of living is increased by modern houses
83	Environmental impact of mining	Brings order into social setup	Devastation of ecosystem	Present mining activity is a sustainable development	Mining has no adverse effect on ecosystem as it is located in remote areas
84	Effect of modern agriculture on soil is due to	Erosion	Acidification	Salinization	All the above
85	Sustainable development will not aim at	social economic development which optimizes the economic and societal benefits available in the present without spoiling the likely potential for similar benefits in the future	reasonable and equitably distributed level of economic well-being that can be perpetuated continually	Development that meets the needs of the present without compromising the ability of future generation to meet their own needs	Maximizing the present day benefits through increased resource consumption
86	Sustainable development requires that energy resource _____	cannot be exhausted completely	cannot be exhausted completely	can destroy the environment	cannot meet the growing demand
87	How many goals and targets are there in SDGs	129 & 15	149 & 16	169 & 17	189 & 18
88	The target year for achieving the sustainable development goals is	2020	2025	2030	None
89	A promising direction towards sustainable development is to design systems that are	flexible and irreversible	flexible and reversible	inflexible and reversible	inflexible and irreversible
90	Which of the following is not a pillar of sustainable development?	Economic	Social	Environmental	Technological
91	What is the goal of sustainability in any process?	To maintain the process finitely	To eventually eliminate the process	To maintain the process indefinitely	To support damaging the environment
92	For sustainable development, environment damage rate _____	should be greater than the	should be exponentially greater than the	should be same as the	should be lesser than the

	environment recovery rate.				
93	The 17 Sustainable Development Goals (SDGs) were adopted by the United Nations in which year?	2000	2005	2010	2015
94	The SDGs are a follow-up to which earlier global initiative?	Millennium Development Goals (MDGs)	Paris Agreement	Kyoto Protocol	Agenda 2021
95	The SDGs were officially adopted during which UN summit?	Rio+20 Summit (2012)	UN Sustainable Development Summit (2015)	Earth Summit (1992)	COP 21 (2015)
96	“Zero Hunger” is the goal number:	1	2	3	4
97	Which of the following is NOT a principle of SDG implementation?	Universality	Integration	“Leave no one behind”	Exclusivity
98	The UN agency primarily supporting capacity development for SDGs is:	UNESCO	UNDP	WHO	IMF
99	Which of the following is an example of capacity development for SDGs?	Community awareness campaigns	Training government officials	Strengthening data collection systems	All of the above
100	“Decent Work and Economic Growth” is addressed by:	SDG 7	SDG 8	SDG 9	SDG 10
101	Which of the following is a constituent of eco-system?	Plants	Birds	Animals	All of these
102	An Eco-System comprises of	Living organisms	Non-living organisms	Both living and non-living organisms	Only plants
103	Which of the following statement is TRUE?	Eco-Systems may vary in size	Eco-Systems are always very large	Eco-Systems are always very small	None of these is true.
104	Which macro consumers has a non-vegetarian diet	Herbivores	Omnivores	Carnivores	Decomposers
105	What are the examples of Primary Consumers	Omnivores	Animals	Green plants and algae	Carnivores

106	All carnivore animals are	Scavengers	Predators	inhibitors	competitors
107	Which are the Abiotic components of an ecosystem	Soil	protein	carbon	all the above
108	Who proposed the term ecosystem	Grinnel	Turesson	A.G. Tansley	Lindeman
109	Which of the following uses maximum energy?	Primary consumer	Secondary consumer	Decomposer	Primary Producers
110	Through, which of the following ,energy enters in an ecosystem?	Herbivores	Producer	Decomposer	Primary producers
111	In ecosystem the source of energy is....	ATP	Sun	The Green plant	Sugar
112	Who is primary consumer of biotic community	Herbivores/Grazing animal	Omnivores	Scavengers	Carnivores.
113	When does the energy flow start in an ecosystem?	When material cycle starts	When sunrises	When any living organism gain food.	When light energy is converted in chemical energy.
114	Who accepts the nutrient released in	Consumers	Producers	Secondary Consumers	None of the given

	environment by decomposer				
115	Which of the following is not a functional unit of ecosystem?	Stratification	Flow of energy	Decomposer	productivity
116	Important physical factor responsible for a good habitat of an organism	Light	Temperature	Humidity	All the above
117	The objective of environmental education is	Raise consciousness about environmental conditions	To teach environmentally appropriate behaviour	Create an environmental ethic	All the above
118	Which of the following is a biotic component of an ecosystem?	Fungi	Solar light	Temperature	Humidity
119	In an ecosystem, the flow of energy is	Bidirectional	Cyclic	Unidirectional	Multidirectional
120	Which of the following is a producer in an ecosystem	Plants& some bacteria capable of producing their own food	Animals	Human beings	Fish
121	A predator is	An animal that is fed upon	An animal that feeds upon another animal	An animal that feeds upon both plants and animals	A primary consumer
122	World environment day is of	5th May	5th June	18th July	16th August

123	The following is not a type of Ecosystem	Grassland Ecosystem	Aquatic Ecosystem	Desert Ecosystem	Mountain Ecosystem
124	In Desert Ecosystem, Shrubs or Bushes are	Producer organisms	Consumers	Decomposers	D)None of the above
125	-_____ are Secondary consumers.	Herbivores	Carnivores	Omnivores	All of the above
126	The following is(are) micro-consumers	Bacteria	Fungi	Flagellates	All of the above
127	Snake is a	Primary consumer	Secondary consumers	Tertiary consumers	Quaternary consumers
128	The following is a Secondary consumer	Goat	Lizard	Wolf	Lion
129	In a pond, insects and small fishes are	Primary Micro-consumers	Secondary consumers	Tertiary consumers	None of the above
130	Every Ecosystem has ____ major component(s).	One	Two	Three	Four
131	The set of ecosystems is called as	Biome	Climate	Subsystem	Structure
132	How many types of aquatic ecosystems are there?	One	Two	Three	Four
133	Where plants and animals live in aquatic ecosystems?	Water	Land	Air	Fire
134	Which is the largest ecosystem on Earth?	Desert	Forest	Grassland	Oceans
135	The zooplanktonic forms are	Primary consumers	Secondary consumers	Carnivores	Primary producers
136	How can desert ecosystems be conserved?	By minimizing the human activity	By pouring water to desert area	By deforestation	By killing organisms
137	Which of the following is a hot-spot of biodiversity in India?	Western Ghats	Indo-gangetic plain	Eastern Ghats	Aravalli Hills

138	Sustainable development means	Meeting the needs of the present & their progress without compromising the of future generation to meet their own needs	The release of solid, liquid & gaseous waste products into atmosphere due various developmental activities	Effective method of providing education employment, social service etc.,	Effective method of providing education employment, social service etc.,
139	Which of the following is correct, if we only achieve two out of three pillars of Sustainable Development?	Social + Economic Sustainability = Equitable	Social + Environmental Sustainability = Bearable	Economic + Environmental Sustainability = Viable	All of the above
140	Which of the following is/are not an objective (s) of sustainable development?	Continue to implement the family planning program.	Maintain a dynamic balance of arable land (not less than 123 million hectares) and implement an agricultural development strategy	Maintain a dynamic balance of water resources by reducing water consumption for every unit of gross development product growth and agricultural value-added	To bring about a gradual and sometimes catastrophic transformation of the environment
141	What are the Primary Goals of Sustainability?	The end of poverty and hunger	Better standards of education and healthcare - particularly as it pertains to water quality and better sanitation	To achieve gender equality	All the above
142	In which year the term 'Sustainable Development' came into existence?	1987	1980	1978	1992
143	Which of the following is not included in the parameters of sustainable development?	Carrying capacity	Inter and Intra-generation equity	Gender disparity and diversity	None of the above
144	What is one of the key principles of	Rapid depletion of natural resources	Exploiting ecosystems for short-	Meeting the needs of the present without	Interdependence of economic, social,

	sustainable development?		term gain	regard for the future	and environmental factors
145	What does the "triple bottom line" concept in sustainability refer to	Profit, product, and people	Economic, environmental, and social factors	Business, government, and community collaboration	Sustainable, reusable, and recyclable materials
146	Social, economical, and ecological equity is the necessary condition for achieving:	Social Development	Economical Development	Sustainable Development	Ecological Development
147	Which of the following is not a pillar of sustainable development?	Economic	Social	Environmental	Technological
148	What is the importance of sustainable urban design?	It promotes green spaces	It promotes energy-efficient buildings	It promotes walkability and bikeability	All of the above
149	What can individuals do to promote sustainable development?	Make sustainable choices in their daily lives	Reduce their carbon footprint	Support sustainable initiatives in their communities	All of the above
150	Sustainable development requires that energy resource _____	cannot be exhausted completely	cannot be exhausted completely	can destroy the environment	cannot meet the growing demand
151	For sustainable development, environment damage rate _____ environment recovery rate.	should be greater than the	should be exponentially greater than the	should be same as the	should be lesser than the
152	What is the goal of sustainability in any process?	To maintain the process finitely	To eventually eliminate the process	To maintain the process indefinitely	To support damaging the environment
153	Sustainable development binds together the concern for natural systems with social and political challenges.	True	False		
154	Sustainability can be achieved by replacing existing resources with other	True	False		

	resources of equal value.				
155	How many goals and targets are there in SDGs	129 & 15	149 & 16	169 & 17	189 & 18
156	The target year for achieving the sustainable development goals is	2020	2025	2030	None
157	A promising direction towards sustainable development is to design systems that are	flexible and irreversible	flexible and reversible	inflexible and reversible	inflexible and irreversible
158	Which of the following is not a pillar of sustainable development?	Economic	Social	Environmental	Technological
159	It is correct for ecosystem.....	Plants, Animals, Microorganisms) + Abiotic environment	Community formed by various species present in a particular region.	Animal, plants and micro-organisms.	Abiotic factors
160	The functional efficiency of ecosystem is affected when decomposers are removed from it, because.	Energy flow will stop	Rest components decomposition will become faster	Herbivorous will not get sunlight	Flow of nutrient will stop.