

## Lecture: 1 & 2

1	Environment means the ----- and----- components surrounding man as well as other living organisms. <b>(Living , Non living)</b>
2	Environmental Studies enables the people to adapt appropriate activities which are ----- ----- with the environment. ( <b>Harmonious</b> )
3	Which of the following Pollutant reduces O <sub>2</sub> carrying capacity of blood? a)CO <sub>2</sub> <b>b) CO</b> c) NO            d) NO <sub>2</sub>
4	The Major Green House Gases are a) carbon dioxide (CO <sub>2</sub> ) b) methane (CH <sub>4</sub> ) c) nitrous oxide (N <sub>2</sub> O) <b>d) all the above</b>
5	How much has the average temperature of the Earth risen in the last 100 years? a) ~ 0.5°C , <b>b) ~ 1.0°C</b> , C). ~ 5.0°C , d) ~ 10.0°C
6	The communities living in KasarGao, Kerala who have been poisoned by <b>a) Endosulfan</b> b) Biopesticides c) Parquet d) all the above
7	According to WHO report documents that Hepatitis – B Virus can survive in a syringe <b>a) 8 days.</b> b) 3 Days c) 5 days d) 25 days
8	Approximately A dentist could generate around ----- of mercury/month a) 9 gms <b>b) 80 gms</b> c) 10 gms d) 60 gms
9	The major pollutants from crackers are a) CO <sub>2</sub> , b) SO <sub>2</sub> and NO <sub>2</sub> ., c) SPM <b>d) all the above</b>
10	The Major pollutant from e Waste is ----- a) Aluminium b) Copper <b>c) Polybrominated biphenyls (PBB)</b> d) Zinc
11	The continuous loss of biodiversity due to <b>a) Habitat degradation</b> b) land Pollution c) Pesticide poisoning d)Poor rainfall
12	Darkening of Taj Mahal is due to a) Water pollution <b>b) Air pollution</b> c) Soil Pollution d) Noise pollution
13	Centre for Environmental Education is located at a) <b>New Delhi</b> b) Ahmadabad c) Bhopal d) Dehra Dun
14	The pesticide residues reported in Pepsi and Coke soft drinks are a) Organosulfur <b>b) Organochlorines</b> c) Organic acids d)organic carbon
15	The loss of this inhibitor is responsible for Bhopal gas tragedy a) HNO <sub>3</sub> b) HCl            c) MIC <b>d) Phosgene.</b>

## Lecture: 3 & 4

1	Which of the following is a highly exploited natural resource?	
	a) Water	b) Soil
	<b>c) Air</b>	d) None of the above
2.	What are called “Pastures of the sea”?	
	a) Estuaries	<b>b) Coastal water</b>
	c) Antarctic divergence	d) All the above.
3.	Which inhibits the native plant life on Antarctica from flourishing?	
	a) Temperature	b)Ice
	<b>c) Drought</b>	d) Volcanoes
4.	Soil containing many single soil called	
	a)Pedons	<b>b) Poly pedons</b>
	c)Profile	d) Regloith
5.	Ground water is depleting at the rate of	
	a) 10 cm / Year`	b) < 10 cm /year
	<b>c) &gt;10 cm / year</b>	d) < 5 cm / year
6.	India is going to be water stressed country in 2025 and the water availability is going to be between 1000 to 1700 cu,m per person predicted by	
	<b>a) UNEP</b>	b)UNESCO
	c) EPA	d) UNDP
7.	Method which increases the amount of land used for cultivation on steep slope and mountains and reduces erosion is	
	a)Gully control	<b>b) Terracing</b>
	c)Contour farming	d) Zero tillage
8.	Only ----- % of total water resources is available for human use	
	a)< 2%	<b>b) 2.5%</b>
	c)10 %	d) 7%
9.	Resources which are not reproducible are called	
	a)Renewable resources	<b>b)Non- Renewable Resources</b>
	c)Cyclic resources	d)Reproducible resources
10.	Soil fertility is an example for ----- resource	
	<b>a)Renewable resources</b>	b)Non- Renewable Resources
	c) Cyclic resources	d) Reproducible resources
11	Which one of the following is a passive factor affecting soil formation	
	a)Topography	b)Time
	c) Parent Material	<b>d)all the above</b>
12	Drought is caused due to -----	
	a)Variability of Rainfall	b)Delay in onset of Monsoon
	c)Duration of break in the monsoon	<b>d)all the above</b>

## Lecture: 5 & 6

1	The process of repeated eating and being eaten is called	
	a)Food Web	<b>b)Food Chain</b>
	c)Ecological pyramid	d)Autotrophs
2.	Project tiger was launched in	
	<b>a)1973</b>	b)1984
	c) 1980	d)1970
3.	Gir lion project started in the year	
	<b>a)1972</b>	b)1984
	c) 1980	d)1970
4.	The Natural , minimally disturbed man modified and degraded ecosystem	
	a)Botanical Garden	b) Zoological Parks
	<b>c)Biosphere Reserve</b>	d) wildlife Sanctuaries
5.	The BSR valley of Flowers is located at	
	a)West Bengal	<b>b)Uttar Pradesh</b>
	C) Bihar	d) Jammu and Kas min
6.	The fine anoxic sediments under mangroves act as sinks for	
	<b>a)Trace metals</b>	b)Organic nutrients
	C) CO <sub>2</sub>	d) Nitrate
7	The type of food chain in mangrove ecosystem is -----	
	a)Grazing food chain	<b>b)Detritus food chain</b>
	C)Both a and b	d)None of the above
8.	The largest mangrove forest in India is	
	a)Pitchavaram	<b>b)Sundarbans</b>
	c)Godavari –Krishna	d)Gulf of Kutch
9.	----- MW of electrical energy can be generated from Wind energy	
	a)10,000	<b>b)20,000</b>
	c) 5,000	d)12,000
10.	_____ are the predominate forests in the world.	
	<b>a) Rain Forests</b>	b)Tropical forest
	c)Temperate forest	d)Mangrove fort
11	Forest covers about 1/3 rd of the earth's land surface of which about ----- ia occupied by tropical forest.	
	a)70 %	<b>b)50%</b>
	c)60 %	d) 20 %
12	A small patch of tropical forest is cleared , vegetation slashed, destroyed and burned in ----- ----- cultivation	
	<b>a)Shifting cultivation</b>	b)Modern Agriculture
	c)Traditional cultivation	d)all the above
13	The depressions in swamps and marches created by these species offer critical refuge to water dependent life forms during periods of droughts	

## Lecture: 7 & 8

1.	----- is example for sedimentary nutrient cycle.	
	a)Carbon cycle	<b>b)Phosphorus Cycle</b>
	c)Sulfur cycle	D)Nitrogen cycle
2.	Denitriifcation is nothing but	
	<b>a)Anaerobic respiration</b>	b) Fermentation
	c) Glycolysis	d) Aerobic respiration
3.	Major components of ecosystems are -----	
	a)Structural	b)Functional
	<b>c)Structural and Functional</b>	d)Abiotic cponent
4.	Pathways of circulation of elements within ecosystem is ----- <b>(Biogeochemical cycles)</b>	
5.	Animals and most microbes which depends on other organisms is known as ----- <b>( Heterotrophs)</b>	
6.	The species way of life or functional role in an ecosystem is termed as ecological ----- ----- <b>( Niche)</b>	
7.	The Physical space occupied by an organism in the ecosystem is ----- <b>( Habitat)</b>	
8.	An Ecological interaction wherein one organism is benefitted and other is unaffected is called ----- is called ----- <b>(Commensalism )</b>	
9.	Wild species that is still abundant in this natural range but declining in numbers are called	
	a)Rare Species	b)Extinct Species
	c)Threatened Species	<b>d)Endangered species</b>
10	A self sustaining community of plants and animals taken together with its inorganic environment is	
	a)Biodiversity	b)Biology
	<b>c)Ecosystem.</b>	d)Ecology
11	This elemental cycle is of unique important to all other elemental cycles	
	a) Nitrogen cycle	b) Oxygen cycle
	c) Hydrological cycle	<b>d)Carbon cycle</b>
12	Guano deposits are the major source of	
	<b>a) Phosphorus</b>	b. Sulphur
	c. Nitric acid	d. Sulphuric acid
13	Chief source of energy in environment is	
	a)Fire	(b) Moon
	<b>C) Sun</b>	(d) Stars
14	The main driving force of hydrological cycle is	
	<b>a) Solar radiation</b>	b) Evaporation
	c) Wind speed	d)Rainfall
15	The Climax communities are different from the presumed climax community is ----- -----	

## Lecture: 9 & 10

1.	Which of the following is not an abiotic factor that shapes ecosystem	
	a) Soil minerals	<b>b) Predators</b>
	c) Fire	d) Rainfall
2.	The association in which food for one organism is derived by killing the host is	
	a) Parasitism,	<b>b) Predation,</b>
	c) Commensalism.	d) Symbiosis
3.	The association in which food for one organism is derived without affecting the host is	
	a) Parasitism,	b) Predation,
	<b>c) Commensalism.</b>	d) Symbiosis
4.	Occurrence of relatively definite sequence of communities over a period of time in the same area is known as	
	a) Ecosystem	<b>b) ecological succession</b>
	c) Ecotone	d) Biome
5.	----- is the type of interaction in which both the organisms are benefited and also the interaction is obligatory for both the organisms.	
	<b>a) Symbiosis</b>	b) Commensalism.
	c) Parasitism,	d) Predation,
6.	Biotic environment includes	
	(a) producers	(b) consumers
	(c) decomposers	<b>(d) all the above</b>
7.	The farmer is an essential ecological variable, influencing the composition, functioning and stability of .....	
	a) Terrestrial Ecosystem	<b>b) AgroEcosystem</b>
	c) Industrial Agriculture	d) All the above
8.	Shifting agriculture , Nomadic Pastoralism and non industrial agriculture are practiced in	

	a)Industrial Agroecosystem	<b>b)Subsistence agroecosystem</b>
	c)Non Industrial agroecosystem	d)All the above
9.	Extensive agroecosystem is those where the annual output of consumable Nitrogen is -----	
	<b>a)20 kg/ha</b>	b)40 kg/ha
	c)30 kg/ha	d)25 kg/ha
10	Transfer of energy one trophic level to another is referred is.....( <b>Food Chain</b> )	
11.	The process of conversion of organic form of nutrients into inorganic form is referred as ..... <b>(Mineralization )</b>	
12.	Pyramids of energy in all the eco system is always in ..... position.( <b>Upright</b> )	
13.	Microorganisms that utilizes organic compounds as carbon and energy sources are referred as ---- ----- ( <b>Heterotrophs</b> )	
14	Final stage of community development is called as___( <b>Climax</b> )	
15	One of the Fundamental balances of the nature is ----- and----- by which the oxygen is balanced in nature ( <b>Photosynthesis and Respiration</b> )	
16	The food chain is opened by producers in grazing food chain and closed by ----- <b>( Decomposers)</b>	
17	Since nutrient inputs are entirely in the form of inorganic fertilizers, nitrogen fixation and soil organic matter are depressed to very low levels in ----- . ( <b> Extensive agricultural system</b> )	
18	Mixed farming system is ----- ( <b>Livestock and cropping subsystem</b> )	

## Lecture: 11 & 12

1.	The levels of biological organization include	
	a) Genetic diversity	b) Species diversity
	c) Ecosystem diversity	<b>d) All the above</b>
2.	The location of Salim Ali College of Ecology	
	a) New Delhi	b) Kolkotta
	<b>c) Mumbai</b>	d) Pondicherry.
3.	Which of the following is not an estimate of species diversity?	
	a) Abundance	b) Turn over
	c) Chromosome banding	<b>d) Richness</b>
4.	Variation of genes within the species is	
	a) Species diversity	b) ecological diversity
	<b>c) Genetic diversity</b>	d) Population diversity
5.	The species richness and evenness is -----	
	<b>a) <math>\alpha</math> Diversity</b>	b) $\beta$ - diversity
	c) $\gamma$ -Diversity	d) all the above
6.	India has -----	
	a) 10 recognised endemic centre	<b>b) 26 recognised endemic centre</b>
	c) 12 recognised endemic centre	d) 40 recognised endemic centre
7.	The richest, rarest and most distinctive natural areas in the earth's biodiversity is -----	
	a) universe 200	<b>b) global 200</b>
	c) planet 200	d) Biome 200
8.	The world's heritage sites located in West Bengal is	
	a) Kazirangal National part	b) Manos Wildlife sanctuary
	<b>c) Sunderban National park</b>	d) Sunderban Mangrooves
9.	In India conservation of genetic diversity of cultivated plant and their wild relative is done by	
	a) WCMC	<b>b) NBPGR</b>
	c) IUCW	d) WCED
10	Plant species which are restricted to a small area and are not found elsewhere in the world is	
	a) Ecotone	b) Biome
	<b>c) Endemism</b>	d) Microcosm
11	Vanda is a -----	
	a) Rare species	<b>b) Endangered species</b>
	c) Extinct species	d) Threatened species
12	An undisturbed natural areas for scientific study as well as conditions of disturbance are under perfect control of	
	a) Wild life sanctuary	<b>b) Biosphere reserve</b>
	c) National park	d) Botanical garden
13.	Carbett National park is at	
	<b>a) Uttar Pradesh</b>	b) Tamil Nadu
	c) West Bengal	d) Gujarat
13.	Kaziranga national park and Manas wild life Sanctuaries are at	
	<b>a) Assam</b>	b) Bihar
	c) Uttar Pradesh	d) West Bengal

14.	Zoological Gardens are ----- method of conserving the resources	
	a) <b>Exsitu</b>	b) insitu
	c) Traditional	d) all the above
15.	A net work of different species present in a local ecosystem and interact between them is called	
	a) <b>Ecological Diversity</b>	b) Ecotone
	c) ecosystem	d) None of the above
16.	Endemism is due to	
	a) Poor adoptability	b) Geographical barrier
	c) Failure of reproductive organs	d) <b>All the above</b>
17.	A species deliberately introduced into an environment that does not historically belongs to its range is known as .....	
	a) Endemic	b) <b>Exotic</b>
	c) Wild species	d) none of the above
18.	Biodiversity is rich in	
	a) Temperate forest,	b) Grasslands,
	c) <b>Tropical forest.</b>	d) desert
19.	Species in danger of extinction whose survival is unlikely	
	a) Extinct	b) <b>Endangered</b>
	c) Rare	d) Threatened
20.	Nilgiri biosphere reserves covers	
	a) Tamil Nadu and Kerala	b) Tamil Nadu and Andhra Pradesh
	c) Karnataka and Tamil Nadu	d) <b>Kerala, Karnataka and Tamil Nadu</b>
21.	The animal which is fast becoming an endangered species in India	
	a) Lion	b) Tiger
	c) <b>Wolf</b>	d) Deer
22.	The first national park established in the World	
	a) Royal National park in Australia	b) <b>Yellowstone National Park in North America</b>
	c) Kruger national park	d) June Corbett national park.
23.	The shrub brought from Australia to decorate garden hedges in India that has become a weed	
	a) <i>Parthenium</i>	b) <b>Lantana</b>
	c) Elder	d) Bilberry
24.	The project tiger was launched in the year	
	a) 1980	b) 1985
	c) <b>1973</b>	d) 1970
25.	Expand CITES----- ( <b>Convention on International trade on Endangered Species</b> )	
26.	The location of Salim Ali Centre for Ornithology is located at ----- ( <b>Coimbatore</b> )	



Lecture 13 & 14

1.	Emission of----- cause acid rain	
	a) NO <sub>3</sub>	<b>b) SO<sub>2</sub> and NO<sub>3</sub></b>
	c) SO <sub>2</sub>	d) Green house gases
2.	Bhopal gas tragedy was due to	
	a) CO	b) SO <sub>2</sub>
	<b>c)MIC</b>	d) H <sub>2</sub> S
3.	Photochemical smog is a pollutant formed in	
	<b>a)Excessive SO<sub>2</sub> Atmosphere</b>	b)High temperature
	c) low temperature	d)Excessive Nitrogen
4.	Electrostatic precipitators are used to remove	
	a)Heavy metals	<b>b) Particulate pollutants</b>
	c) Sulfur compunds	d) Dioxins
5.	Byssinosis is an Occupational disease found in workers of	
	a)Coal mine	<b>b)Textile Industry</b>
	c)Slaughter house	d)Galvanizing Industries
6.	PAN is ----- Pollutant	
	a)Primary Pollutant	<b>b)Secondary Pollutant</b>
	c)Water Pollutant	d)Soil pollutant t
7.	Smog is	
	<b>a)Fog + Smoke</b>	b)Smoke + Rain
	c)Smoke + CO <sub>2</sub>	d)Fog + CO <sub>2</sub>
8.	Photo chemical smog is formed during	
	a)Early Morning	b)Afternoon
	c)Rainfall	<b>d)Early afternoon</b>
9.	Peak SO <sub>2</sub> concentration was	
	a)13 ppm and smoke 40 mg/M <sup>3</sup>	b)0.1 ppm and smoke 400 mg/M <sup>3</sup>
	c)0.3 ppm and smoke 0.4 mg/M <sup>3</sup>	<b>d) 1.3 ppm and smoke 4 mg/M<sup>3</sup></b>
10.	Which of the following pollutant reacts with marble stone (CaCO <sub>3</sub> ) to produce calcium sulphate, causing darkening and disfigurement of Taj Mahal	
	<b>a)Acid Rain</b>	b)Smog
	c)CO <sub>2</sub>	d)O <sub>3</sub>
11	Planet earth along with the atmosphere that sustains life is known as	
	a)Hydrosphere	<b>b)Biosphere</b>
	c)Atmosphere	d)Lithosphere
12.	Stratosphere is rich in -----	
	<b>a)Ozone.</b>	b)Chlorine
	c)Helium	d)Freon

13.	Lead poisoning affects the function of	
	a)Liver	b)Kidney
	<b>c)Lungs</b>	d)Heart
14.	Microbes involved in methane oxidation are -----	
	a)Acidophiles	<b>b)Methanotrophs</b>
	<b>c)Thermophiles</b>	d)Methanogens
15.	The silent killer gas, which has more affinity towards haemoglobin of the blood	
	a) NO <sub>2</sub>	b)CO <sub>2</sub>
	c)SO <sub>2</sub>	<b>d)CO</b>
16.	Time taken by sunlight to reach the earth	
	a)20 seconds	b)45 minutes
	c) 8 seconds	<b>d)8 minutes.</b>
17.	The unit of measurement of ozone thickness is	
	a)Decibel	<b>b)Dobson</b>
	c)Richter	d)Decimal
18.	Which satellite recorded the presence of ozone hole?	
	a)Landsat-3	<b>b) Nimbus</b>
	c)GOES	d)TRIPS-N.
19.	The part of human body first to be affected due to vehicular pollution?	
	a) Kidney	b)Liver
	<b>c)Lungs</b>	d) Brain
20.	Black lung disease occurs among	
	a) Quarry workers	b)Refinery workers
	<b>c)Coal miners</b>	d) Smokers
21.	One per cent reduction in O <sub>3</sub> increases the UV radiation on earth by	
	a)1%	<b>b)2%</b>
	c)10%	d) 5%.
22.	Plumbism is nothing but	
	a)Cd poisoning	b)Hg poisoning
	<b>c) Pb poisoning</b>	d)Cr poisoning.
23.	The most prominent inorganic oxidant in atmosphere	
	<b>a)O<sub>3</sub></b>	b) O <sub>2</sub>
	c)OH	d)NO <sub>2</sub> .
24.	Mesothelioma is a type of cancer which occur due to	
	<b>a)Asbestos</b>	b)Copper
	c)Silver	d) Iron
25.	White lung disease is common among	
	a)Coal miners	b)Farmers
	c) Traffic police	<b>d)Textile workers.</b>

## Lecture 15 & 16

1.	IPCC is concerned with	
	a)Heavy metal	<b>b)Ozone depletion</b>
	c)Biodiversity	d)Nitrate pollution
2.	Sulfuric acid is a secondary pollutant	
	<b>a)True</b>	b)False
	Acid rain is	
3.	<b>a) Rainfall with a pH of &lt;5.6</b>	b) Rainfall with a pH of >5.6
	c)Rainfall with a pH of >7.6	d)Rainfall with a pH of <2.6
4.	Reddish brown flecks on leaves, bleaching , premature aging, in plants is caused by	
	a)Nitrate	b)SO <sub>2</sub>
	c)Lead	<b>d)Ozone</b>
5.	Which one of the following is a Ozone depleting compounds	
	a)CFCs,	b)methane
	c)nitrous oxide	<b>d)All the above</b>
6.	A single chlorine atom can destroy up to	
	a)10,000 ozone molecules in the stratosphere.	<b>b) 100,000 ozone molecules in the stratosphere.</b>
	c)100,000 ozone molecules in the Troposphere.	d)10,00,000 ozone molecules in the stratosphere.
7.	Ozone hole was first observed in	
	a)Africa	<b>b)Antartica</b>
	c)Asia	d)Latin America
8.	Microbes involved in methane oxidation are	
	<b>a)Methhanotrophs</b>	b)Methanogens
	c)Acidophiles	d)Methanococcus
9.	The Scientist who detected acid in rainwater for the first time	
	a) Ravish Malhotra	b) Yuri Gagarin
	c) Henry Becquerel	<b>d)Robert Angus Smith.</b>
10.	A generic growth model for various crops was developed by IARI for optimal resource and agronomic management options.	
	a) Inforesource	<b>b) Infocrop,</b>
	c) Infomap	d)Infoagron
11.	A simple sugarcane growth model, to measure effects on cane yield is	
	a) Infosys	b)infocrop
	<b>c) Infocane</b>	d) none of the above
12.	The main culprit in photochemical smog is	
	a)NO <sub>x</sub>	b)Ozone
	c)PAN	<b>d)all the above</b>
13.	The main pollutant in reducing smog is	
	a)SO <sub>2</sub>	b)Moisture
	c)Soot particles	<b>d)all the above</b>
14.	In the total warming effect CO <sub>2</sub> alone contribute	
	a)30%	b)25%

	<b>c)60 %</b>	d)40 %
15	The important replacement for CFC's are	
	<b>a)HFCs</b>	b)HCFCs
	c)Halogenated CFC's	d) all the above
16	Atmosphere residence time for methane is around	
	a)10-12 years	<b>b)8 -11 years</b>
	c)5 – 6 years	d)More than 20 years
17	Ozone layer is -----	
	a)Protective layer when it is in mesosphere	b) Protective layer when it is in troposphere
	<b>c)Destructive layer when it is in troposphere</b>	d)all the above
18.	_____ is the predominant inorganic oxidant in atmosphere ( <b>Ozone</b> )	
19.	Electrostatic precipitators are used to remove _____ ( <b>Particulate Matter</b> )	

### Lecture 17 & 18

1	Biological treatment of wastewater aims to remove	
	a)Inorganic Pollutants	<b>b)Organic Pollutants</b>
	c)Heavy Metals	d)Dissolved salts
2	Remediation of soil contamination using microorganisms is termed as -----	
	<b>a)Bioremediation</b>	b)Phytoremediation
	c)Biosorption	d)Bioreclamation
3	Blue baby syndrome is high concentration of----- in drinking water	
	<b>a) Nitrate</b>	b) phosphate
	c) nitrogen	d) Calcium
4	The maximum permissible limit of nitrate in drinking water is	
	a)100 mg/l	b) 100 mg/l
	c)10 mg/l	<b>d) 50 mg/l</b>
5	Increase in the concentration of a recalcitrant substance at successive trophic level is called	
	a)Bioaccumulation	<b>b)Biomagnification</b>
	c)Biosorption	d)Biofiltration
6	Which of the following is not an aerobic process?	
	a)Activated Sludge Process	<b>b) Sludge Digestion</b>
	C) Trickling Filter	d) Oxidation Pond
7	Fluidised reactor provides the effect of	
	<b>a)Trickling filter and activated sludge</b>	b) Trickling filter
	c)Activated Sludge Process	d)Lagoons
8	The use of DDT in India for agricultural use is banned in the year	
	a) 1980	<b>b) 1985</b>
	c)1986	d)1984.
9	Which one of the following reactor can be used for treating Slaughter house waste	
	<b>a) USAB</b>	b) Fluidised reactor
	c) RBC ,	d) Air Lift Reactor
10	Plasmid involved in degradation of xenobiotics	
	a) Col plasmid	<b>b) Xyl Plasmid</b>

	c) Ti plasmid	d) RI Plasmid
11	Biodegradative ability of <i>Pseudomonas</i> is attributed to	
	<b>a) Presence of plasmids</b>	b) Resistance to adverse conditions ,
	c) Presence of transposons	d) Presence of OXidase Enzymes
12	A pure or nearly pure water contains a BOD of approximately (mg/L)	
	a) 20-30	<b>b) 30</b>
	c) 0-3	d) 10-12
13	Minamata disease was due to	
	a) Phenol	<b>b) mercury</b>
	c) Methane	d) Benzene
14	Phytoremediation is	
	a) Protection of plants from pests by integrated pest management	b) Removal of toxicants from plant body by chemical means
	c) Use of plants for removing toxicants from soil and water	d) Use of root mycorrhizae for bioremediation purposes
15	Fixed Biomass principle is followed in	
	<b>a) Activated sludge</b>	b) Trickling Filter
	c) Lagoons	d) biogas Digester
16	Rotating Biological contactors are used for	
	<b>a) Reducing BOD of wastewaters</b>	b) Biofiltration of wastewater
	c) Removing colour of textile effluents	d) Removing pathogens from sewage
17	Fine bubble air diffusers are used in	
	a) Trickling filter	<b>b) Activated sludge process</b>
	c) Rotating biological contractor	d) Oxidation pond
18	Minamata disease was due to	
	Phenyl mercury	b) Inorganic mercury
	<b>c) Methyl mercury</b>	d) Benzyl mercury
19	A highly toxic group of compounds are released with effluents of bleached pulp mills. This group is	
	a) Organocyanides	<b>b) Organochlorines</b>
	c) Ligninchlorides	d) Methylmercurials
20	A pure or nearly pure water contains a BOD of approximately (mg/Lit)	
	a) 30	b) 20-30
	<b>c) 0-3</b>	d) 10-12
21	According to World Health Organization (WHO) the permissible limit for coliforms in drinking water is	
	a) 100/L	<b>b) 0/L</b>
	c) 1/L	d) 10/
22	Among the following which one is the best method for treating sewage sludge	
	a) Aerobic digestion	<b>b) Anaerobic digestion</b>
	c) Incineration	d) Pisciculture
23	In India the commonly used method for sewage treatment is	
	a) Oxidation ponds	b) Trickling filters
	<b>c) Activated Sludge Process</b>	d) Rotating Biological Contactor
24	With the increase in temperature of receiving water	

	a) DO content decreases	b) DO content increases
	c) Demand of oxygen increases	d) Demand of oxygen increases
25	The principle in using activated carbon for wastewater treatment is	
	a) Coagulation	b) Absorption
	c) Adsorption	d) All the above.
26	Critical limits of COD to discharge the wastewater into water bodies	
	a) 10 ppm	b) 100 ppm
	c) 250 ppm	d) 1000 ppm
27	Optimum BOD:N:P ratio for aerobic treatment of wastewater	
	a) 100:5:1	b) 75:50:1
	c) 5:100:1	d) 100:50:1
28	Cadmium poisoning leads to	
	a) Itai Itai disease	b) Knockknee syndrome
	c) Methamoglobinaemia	d) Cancer.
29	The ability of the solution to conduct electrical current is measured as	
	a) pH	b) EC
	c) TSS	d) None of the above
30	Eutrophication is due to addition of .....element ( <b>Phosphate</b> )	
31	The commonly used coagulant in wastewater treatment is ..... ( <b>Alum</b> )	
32	Transfer of contaminants through food chain is referred as ..... ( <b>Biomagnification</b> )	
33	The chemical used to disinfect water is-----( <b>Chlorine</b> )	
34	The Indicator organism for Fecal Contamination is----- ( <b>Coliforms</b> )	
35	----- is a bioindicator used to check the potability of drinking water ( <b>Coliforms</b> )	
36	Major domestic sources of Nitrogen in sewage is ----- ( <b>Human Wastes</b> )	
37	Test for oxygen consumption in water is ----- ( <b>BOD</b> )	
38	An analytical device which converts a biological response into an electrical signal is ----- ----- --- ( <b>Biosensors</b> )	
39	A device that detects and transmits information regarding a change in the quality of water sample is known as----- ( <b>Biosensors</b> )	
40	Heavy metal pollution in soils through application of chemical fertilizers is regarded as -- ----- ----- source of pollution ( <b>Non Point Source of Pollution</b> )	
41	The actual polluting source is not known in----- ( <b>Non Point Source of Pollution</b> )	
42	The accumulation of Nonbiodegradable substances along the food chain is known as ----- ----- --( <b>Biomagnification</b> )	
43	Lakes poorly productive in terms of organic matter and poor in nutrients is known as----- ----- --( <b>Oligotrophic</b> )	
44	The principle adopted in activated sludge is ----- ( <b>Suspended Growth Principle</b> )	
45	----- treatment is commonly used to remove dissolved salts from the wastewater ( <b>Reverse Osmosis</b> )	
46	----- is a bioreactor that produces energy from high strength waste water ( <b>UASB</b> )	
47	Eco friendly detergents are----- free ( <b>phosphate</b> )	
48	Hardness of water is due to ----- ( <b>Ca &amp; Mg</b> )	
49	Nitrate contamination in water causes.....in infants. ( <b>Methamoglobinaemia</b> )	

### Lecture 19 & 20

1	Heavy metal pollution in soils through application of chemical fertilizers is regarded as ----- ----- source of pollution	
	a)Point	<b>b) Non point</b>
	c) Degradable	d) Non Degradable
2	_____ is a practice of solid waste disposal.	
	<b>a) Land fill</b>	b) Landscape
	c) Landslide	d) None of the above
3.	The process of enrichment to remove pollutant in soil is called -----	
	<b>a) Biostimulation</b>	b)Bioaccumulation
	c) Biosorption	d) All the above
4	The most obvious toxic product of combustion of plastic is -----	
	a)PHB	b)Toluene
	c)PHA	<b>d)Dioxins</b>
5	The main problem associated with management of solid waste in Inida is	
	a)Exceesive moisture	<b>b) Segregation ,</b>
	c) Collection ,	d) Management techniques
6	The persistent molecules that fail to be metabolized are called as	
	<b>a)Recalcitrant</b>	b) resistant
	c) hard substances	d) biodegradable
7	The process of destruction of solid waste in high temperature is	
	a) burning	<b>b) Pyrolysis</b>
	c) Incineration	d) Biomethanation
8	Biostimulation is nothing but	
	<b>a) Addition of nutrients</b>	b)Addition of microbes
	c)Addition of wood chips	d) Do nothing
9	Bioaugmentation is	
	a)Addition of nutrients	<b>b) Addition of microbes</b>
	c)Addition of aeration	d) Do nothing
10	Incineration of municipal solid waste releases which toxic material of significant concern?	
	a) HCl gas	<b>b) dioxins</b>
	c) Heptachlor	d) Methyl mercury
11	While building a landfill, it should be ensured that it is	
	<b>a. above the groundwater table</b>	b. below the groundwater table
	a. level with groundwater table	d. in sandy terrains
12	Which heavy metal acts as oxidative uncoupler	
	a)Chromium	b)Nickel
	<b>c)Arsenic</b>	d)Lead

	Biodegradation of metals is not possible, but ----- is a valid concept in the management of metal pollution	
	a) Bioaugmentation	b) Phytodegradation
	c) Biostimulation	<b>d) Biomobilization</b>
14	Seed treatment mercuric fungicides are found to be inhibitory to	
	a) <i>Rhizobium</i> (nodulation and nitrogen fixation),	b) <i>Nitrosomonas</i> (nitrification).
	c) <i>Nitrobacter</i> (nitrification)	<b>d) All the above</b>
15	----- contains an element sensitive to UV rays, under the solar rays the element is activated and breaks the polymeric chain of the photodegradable plastic.	
	<b>a) Photodegradable plastic</b>	b) Biodegradable plastic
	c) Recalcitrant plastic	d) None of the above
16	Acidic soils can be ameliorated by	
	a) adding quick lime	b) adding slaked lime
	c) adding basic slag	<b>d) all the above</b>
17	The usage of coral shell, chalk, wood ash, press mud helps to ameliorate	
	<b>a) acidic soil</b>	b) saline soil
	c) sodic soil	d) all the above
18	Soil polluted with excess soluble salt is known as	
	<b>a) saline soil</b>	b) sodic soil
	c) acidic soil	d) latritic soil
19	Application of gypsum reclaims	
	a) saline soil	<b>b) alkaline soil</b>
	c) acidic soil	d) all the above
20	An approach that does not pollute the soil, ground water and quality food for consumption is	
	a) Jhum cultivation	b) industrial agriculture
	<b>c) organic farming</b>	d) all the above

### Lecture 21 & 22

1.	Human Ear can detect sounds in the frequency range of about -----	
	a) 20 Hz	<b>b) 20-20,000Hz</b>
	c) 40,000Hz	d) 24,000 Hz
2.	Unit of measuring noise is -----	
	a) Dopson	b) Decimel
	<b>c) Decibel</b>	d) Dobson
3.	The permitted noise level in a silant zone during day time is -----	
	a) 65	b) 55
	<b>c) 50</b>	d) 70
4.	Human generated noise in the ocean may interfere with marine organisms	
	<b>a) Communication</b>	b) mobility
	c) food finds ability	d) migration
5.	When a person exposed to a voice level of 160 decibels for long time causes	



	a)Annoyance	b)Restlessness
	c)Tiredness	<b>d)Rupture of tymphonic membrane</b>
6.	For one megawatt energy generation, nuclear power plant requires colling water each day ----- Cooling water each day.	
	a) 1:3 million m <sup>3</sup>	b) 0.3 million m <sup>3</sup>
	c) 1 million m <sup>3</sup>	<b>d) 5 million m<sup>3</sup></b>
7.	Thermal pollution in a river -----	
	<b>a) reduces the O<sub>2</sub> Disssolution</b>	b) increases O <sub>2</sub> solubility
	c) stabilizes O <sub>2</sub> level	d) none of the above
8.	urban heat island is nothing but -----	
	a) a dome of cool air over the urban area	<b>b) a dome of warm air over the urban area</b>
	c) a dome of noise pollution over the urban area	d) reduced wind speed over the urban area
9.	<i>Chondrococcus columnaris</i> is harmless to fish at 10°C but causes diseases when the temperature of water is	
	a) more than 12°C	<b>b) more than 21°C</b>
	c) less than 10°C	d) at 10°C
10.	The thermal pollution of water in a industrial process can be	
	a) used for cogeneration	b) used to heat building to remove snow
	c) used to deice canals	<b>d) all the above</b>
11.	Tinnitus is due to	
	a)Water pollution	<b>b) Noise Pollution</b>
	c)Soil pollution	d)Xenobiotics
12.	The major effect of discharging heated water from power plants to aquatic ecosystems	
	a)Reduction in DO concentration	B0)Reduction in Biodiversity of the ecosystem
	c)Increase in metabolic rate of organism	d) All the above
13	The noise level during normal conversation is	
	a)30 db	<b>b)35-60 db</b>
	c)20 db	d)90 db
14	Persistent sound in one or both ears, often experienced as a high pitch ringing sound is	
	a)annoyance	b)all the above
	c)deafness	<b>d)tinnitus</b>
15	The amount of any gas that can be dissolved in water is	
	<b>a)inverse with temperature</b>	b)direct with temperature
	c)no relation with temperature	d)none of the above

### Lecture 23 & 24

1.	Nuclear wastes comprises paper, rags, tools, clothing, filters etc which contain small amounts of mostly short-lived radioactivity is called as	
	a)Medium level waste	<b>b)Low level waste</b>

	c)High Level waste	d) Transuranic wastes
2.	Nuclear waste which requires 100% shielding during disposal is	
	a)Medium level waste	b)Low level waste
	<b>c)High Level waste</b>	d) Transuranic wastes
3.	The waste which contains elements having an atomic number greater than Uranium is	
	a)Medium level waste	b)Low level waste
	c)High Level waste	<b>d) Transuranic wastes</b>
4.	Radioactive pollution that is spread through the earth's atmosphere is called -----	
	a) Transuranics	<b>b)Radioactive fallout</b>
	c)Radionulides	d)Low level waste
5.	The disaster at the Chernobyl Nuclear fallout contaminated approximately -----square miles of farmland and villages in Ukraine , Soviet Union.	
	a)200	b) 400
	c)800	<b>d) 1,000</b>
6.	The part of human body is the first to be affected by nuclear radiation?	
	a)Lungs	b) Brain
	<b>c. Bone marrow</b>	d. Liver.
7.	Vitrification is disposing nuclear waste	
	a)Burying below ground	<b>b)Solidifying in the form of glass</b>
	c)Ice Sheet Disposal	d) Deep geological disposal
8.	Converting part of the hazardous nuclear waste into a more stable material that decays quickly	
	<b>a) Transmutation</b>	b) Vitrification
	c)Ice Sheet Disposal	d) Deep geological disposal
9.	International Agreement is necessary for	
	a)Ice Sheet Disposal	b) Deep geological disposal
	c)Burying below ground	<b>d) Space Disposal</b>
10	Richness of nutrients in industrial waste water leads to	
	<b>a)eutrophic condition</b>	b)oligotrophic
	c)mesotrophic	d)none of the above
11	Increase in the concentration of a recalcitrant compounds along the food chain is	
	<b>a)biomagnification</b>	b)bioaccumulation
	c)biosorption	d)none of the above
12	The main problem associated with managing Indian solid waste is	
	a)segregation	b)high moisture content
	c)season variation	<b>d)all the above</b>
13	Sludge is treated prior to ultimate disposal for	
	a)stabilization of organics	b)volume reduction
	c)pathogen reduction	<b>d)all the above</b>
14	Integrated waste management is	
	<b>a)co composting</b>	b)composting
	c)vermicomposting	d)all the above
15	Destructive distillation ic called	
	<b>a)pyrolysis</b>	b)incineration
	c)controlled tripping	d)none of the above

## Lecture 25 - 28

1	The natural hazard that does not occur in India?	
	a) Earthquake	<b>b) Volcano</b>
	c) Cyclone	d) Radioactive emissions.
2	Mud slide is a -----Disaster	
	a) Man made	b) Natural Disaster
	c) major Natural Disaster	<b>d) Minor natural Disaster</b>
3	The main reason for high Loss of life in developing world due to disasters is lack of ----- <b>(effective disaster warning systems)</b>	
4	The advantage of using a map with remote sensing or GIS instead of a static geographical map is --	
	a) Not interactive	<b>b) Interactive</b>
	c) No visualization effect	d) low visualization effect
5	Fire safe roofing is a mitigation approach in -----	
	a) Fire hazards	<b>b) Wildfire hazard areas</b>
	c) Tsunami affected areas	d) cyclone affected areas
6.	Specific Disaster Management Software is ----- <b>(DesInventar)</b>	
7.	The National Disaster Management Authority (NDMA), headed by----- the, is the Apex Body for Disaster Management in India.	
	a) President of India	<b>b) Prime Minister of India</b>
	c) Minister, MoEF	d) None of the above
8.	Disaster management Act was enacted in the year -----	
	<b>a) 2005</b>	b) 2004
	c) 2002	d) 2001
9.	Flood Control aims	
	a) Flood reduction	b) Flood Diversion
	c) Flood Proofing	<b>d) all the above</b>
10.	----- is a meteorological phenomena in which an area of low pressure characterized by inward spiraling winds that rotate counter clockwise in the northern hemisphere and clockwise in the southern hemisphere of the earth.	
	a) Thunderstorm	<b>b) Cyclone</b>
	c) Tsunami	d) Storm
11.	On an average, every year ----- cyclones form in the Bay of Bengal <b>(about 5-6 tropical)</b>	
12.	The type of cyclone generally occurs outside the tropics, in the middle latitudes of the planet described as ----- <b>(“mid-latitude cyclones” or “post-tropical cyclones)</b>	
13	GIS is used for	
	a) tracing missing persons	b) co-ordinating donor groups
	c) finding locations of camps and shelter	d) all the above
14	----- was mandated to review the financial arrangement of disaster management. <b>(twelfth finance</b> <b>commission of India).</b>	

15	National disaster management authority(NDMA) is headed by---	
	<b>a)prime minister</b>	b)finance minister
	c)president	d)home minister
16	Circulation of air in counter clockwise direction in the northern hemisphere with 1000-2000 km/hr spanning is called	
	<b>a)polar cyclone</b>	b)tropical cyclone
	c)sub tropical cyclone	d)all the above

### Lecture: 29

1	The design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances	
	a)Chemistry	b) Green chemistry
	<b>c) Ecofriendly chemicals</b>	d) Biocides
2	Second Law of thermodynamic is applicable to food chain also, True or False ( <b>True</b> )	
3.	_____ colour has become established as a sign of conservation of environment ( <b>Green</b> )	
4	Sustainable development is the effective use of resources for ----- ( <b>economic development</b> )	
5.	Sustainable development interlinks the ----- and ----- ( <b>development, carrying capacity of environment</b> )	
6.	Electricity generated from nuclear fission ,fusion is -----	
	<b>a)High quality energy</b>	b)Low quality energy
	c)Medium quality energy	d)None of the above
7.	Usage of renewable resources should not be faster than their ----- ( <b>regeneration capacity</b> ).	
8.	Minimizing any adverse impacts on resources and environment for future generation is called ---	
	<b>a)Inter generational equity</b>	b)Intra generational equity
	c)Sustainable development	d)unsustainable development
9.	Technological development of rich countries should support economic growth of poor countries and lead to sustainability.	
	a)Inter generational equity	<b>b)Intra generational equity</b>
	c)Sustainable development	d)unsustainable development
10.	----- is the concept that Measure for sustainable Development which is locally adaptable, ecofriendly efficient and culturally suitable ( <b>Design with Nature</b> )	
11	<b>The 3-R Approach</b>	
	<b>a)Reduce, Reuse and Recycle approach</b>	b)Reduce, Refuse and Recycle approach.
	c)Refuse, Reuse and Recycle approach.	d)Reduce, Reuse and Refuse approach.
12	Involuntary rehabilitation is due to ---( <b>construction of various types of developmental projects</b> )	

Lecture : 31

1	UNICED is expanded as _____ ( <b>United Nations conference for environmental development</b> )
2	Environment Act was passed in the year ---- ( <b>1986</b> )
3	World Environment Day falls on ..... ( <b>June 5<sup>th</sup></b> )
4	The Air (Prevention & Control of Pollution) Act, was passed in the year ( <b>1981</b> )
5	Section-----of the Air Act says that no person shall, without the previous consent of the State Board, establish or operate any industrial plant in an Air Pollution Control Area ( <b>21/22</b> )
6	The Water (Prevention and Control of Pollution) Act, was passed in the year - ( <b>1974</b> )
7	The Wildlife Protection Act was passed in the year --- ( <b>1972</b> )
8	Approximately ----- of forest land diverted during 1950 to 1980 for non forestry purposes ( <b>4.3 million ha</b> )
9	The information regarding CPCBOSPCB and their terms, powers are given in ---- of the air(prevention and control of pollution)act,1981.( <b>chapter II</b> )
10	The joint board of Cauvery river includes---
	a)officials from Karnataka
	b)officials from tamil nadu and Pondicherry
	c)central board official,
	<b>d)all the above</b>