


Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Theory Examination, July 2020

Course: Environmental Sciences

Semester: II

Program: B. Pharmacy

Time 2 hrs.

Course Code: BP206T

Max. Marks: 100

Instructions: Read questions carefully. All questions are compulsory

SECTION A (40 marks)

Q1 Multiple Choice Questions (20X01=20 marks)

1a	CO3	Effect of thermal Pollution is/are	Toxicity of pesticides, detergents and chemicals in the effluents increases with increase in temperature	Fish migration is affected due to formation of various thermal zones	Both (a) and (b)	None of these
1b	CO3	Identify the technology adopted to control thermal pollution.	Bag house filter	Cooling tower	Settling chamber	Cyclone
1c	CO2	Identify the strategies that can be adopted for water conservation.	Contour cultivation	Surface crop residues,	Water spreading	All of these
1d	CO3	Identify the human activities that have been the main cause (s) for increasing the severity and frequency of floods.	Clearing of forests for agriculture	Construction of roads	Both (a) and (b)	None of these
1e	CO1	BOD stands for _____	biological oxygen demand	biological oxygen decay	biomedical oxygen demand	None of these
1f	CO2	Tea gardens in Chhota Nagpur has disappeared due to _____	deforestation	Soil erosion	landslide	None of these
1g	CO1	Highest Dam in India is _____	Tehri	Bhakra	Sardar Sarovar	Hirakund
1h	CO1	The Satluj-Yamuna link (SYL) canal dispute is between Punjab and _____	Haryana	Uttar Pradesh	Uttarakhand	Orissa
1i	CO2	Effects of groundwater usage is/are	Subsidence	Lowering of water table	Both (a) and (b)	None of these
1j	CO4	Nature has provided us with all the resources for leading a beautiful life and she nourishes us like a mother, we should respect her and nurture her", this is a/an _____ thinking.	Man-centric	Eco centric	Both (a) and (b)	None of these
1k	CO3	Grassland ecosystem shows _____ pyramid of numbers.	Upright	Inverted	Spindle	None of these
1l	CO3	Functional attributes of an ecosystem is/are	Food chain	producer	Both (a) and (b)	None of these
1m	CO2	Economically unproductive lands suffering from environmental deterioration are known as _____	Wastelands	Sanitary landfill	Both (a) and (b)	None of these
1n	CO3	Solid waste can be disposed by	Incineration	Composting	Sanitary landfill	All of the above
1o	CO1	World environment day is celebrated on _____	05 june	05 july	05 may	None of these

1p	CO2	Benefits of big dams is/are	providing employment	control water pollution	displacement of tribal people	None of these
1q	CO1	The succession starting in dry area with little moisture is known as _____	Mesosere	Hydrosere	Xerosere	All of the above
1r	CO1	Wildlife act, a landmark in the history of wildlife legislation in our country, came into existence in _____ year.	1971	1972	1973	1974
1s	CO2	_____ a foul smelling gas, added to LPG so that any leakage of LPG from the cylinder can be detected.	Ethyl mercaptan	Propane	Ethane.	Methane
1t	CO4	If you are a climate change expert you have suggested few solutions /steps to slow down the process of global warming. Select the correct solutions	Shift to renewable energy resources	stabilizing the population growth	reduce beef production	All of these

Q2 Fill in the blanks / True and False (20 x01=20 Marks)

2a	CO1	The urban solid waste materials that can be degraded by microorganisms are called _____ wastes.				
2b	CO1	Thermal pollution can be defined as presence of waste oil in the water which can cause undesirable changes in the natural environment.	True/False			
2c	CO1	CPCB stands for _____				
2d	CO2	Species which are restricted only to a particular area are known as _____				
2e	CO2	_____ the cure for malaria is obtained from the bark of Cinchona tree.				
2f	CO2	Sometimes, the loss of habitat of biodiversity is in instalments so that the habitat is divided into small and scattered patches, a phenomenon known as _____				
2g	CO3	Carbon monoxide (CO) reaches lungs and combines with haemoglobin of blood to form _____				
2h	CO3	In 1953, people in Japan suffered from numbness of body parts, vision and hearing problems and abnormal mental behaviour. This disease is known as _____				
2i	CO3	Substances like DDT are not water soluble and have affinity for body lipids. These substances tend to accumulate in the organism's body. This process is called _____				
2j	CO4	If you are an earthquake expert name the type of house you will recommended in earthquake prone area _____				
2k	CO1	Pollen grain is an example of natural source of air pollution.	True/False			
2l	CO1	The point on a fault at which the first movement occurs during an earthquake is called the _____				
2m	CO1	Forest act deals with the conservation of forests and related aspects. Except _____, the act is adopted all over India.				

2n	CO2	First step of ecological succession process is _____				
2o	CO2	Grazing food chain starts with _____ and culminates in carnivores.				
2p	CO2	_____ is a nuclear change in which nucleus of certain isotopes with large mass numbers are split into lighter nuclei on bombardment by neutrons and a large amount of energy is released through a chain reaction.				
2q	CO3	In dry cooling tower, hot water is sprayed over baffles. Cool air entering from sides takes away the heat and cools the water. This cool water can be recycled or discharged.	True/False			
2r	CO3	In nitrogen cycle, after death of the plants and animals, the organic nitrogen in dead tissues is decomposed by several groups of ammonifying and nitrifying bacteria which convert them into ammonia, nitrites and nitrates, which are again used by plants.	True/False			
2s	CO3	Oxygen gas and its radioactive daughters are responsible for a large number of lung cancer deaths each year.	True/False			
2t	CO4	You are an environmental engineer in a government organization. During one of your official visit you find that there are large number of hot springs in the state. So you suggest _____ energy to be harness from the hot springs to meet the energy demand of the state.				

SECTION B (60 Marks)

Q3 Multiple Choice Question (10x1=10 marks)

3a	CO4	Nitrate when present in excess in drinking water causes _____	Methaemoglobinemia or blue baby Syndrome	Itai-Itai	Typhoid	Fluorosis
3b	CO3	The greenhouse gases present in the troposphere is/are	Carbon dioxide	Methane	Chlorofluorocarbons	All of these
3c	CO3	Pollution by another heavy metal cadmium in drinking water had caused the disease called _____ in the people of Japan	Minimata disease	Itai-Itai	Blue baby syndrome	Fluorosis
3d	CO3	The United Nations Universal Declaration on Human Rights [Article _____] has declared that right to housing is a basic human right.	25(1)	25(3)	25(2)	25(7)
3e	CO1	Ozone molecule contains _____ oxygen atom	one	two	three	four
3f	CO1	Cholera, Dysentery, Typhoid and Jaundice are an example of _____	water borne disease	air borne disease	soil borne disease	None of these
3g	CO1	_____ is a type of mining in which chained buckets and draglines are used which scrap up the minerals from under-water mineral deposits.	Dredging	Open-pit mining	Strip mining	None of these
3h	CO2	Major consequences of deforestation is /are	Hydrological cycle gets affected	Problems of soil erosion	landslides.	All of these
3i	CO2	Anthracite, Bituminous and Lignite are examples of _____	Coal	Copper	Iron	Gold
3j	CO4	Identify the strategy which is adopted for cyclones management.	deforestation	construction of dams	Water spreading	None of these

Q4 Fill in the blanks /True of False (10x1=10marks)						
4a	CO2	Landslides occurs when coherent rock of soil masses move downslope due to gravitational pull.	True/False			
4b	CO1	There are two popular indices of measuring species diversity known as Shannon-wiener index and Simpson index	True/False			
4c	CO1	A large number of windmills installed in clusters called _____				
4d	CO1	Excessive fertilizers use in Punjab and Haryana has caused deficiency of the micronutrient _____in the soils, which is affecting productivity of the soil.				
4e	CO1	PCBs stands for _____				
4f	CO4	Select the correct methods adopted to control noise pollution.	Reduction in sources of noise	Through Law	Planting more trees having broad leaves	All of these
4g	CO2	The Cauvery river water is a bone of contention between Tamilnadu and Maharashtra.	True/False			
4h	CO1	The term hotspot of biodiversity was coined by _____				
4i	CO2	_____are the organisms derive their nutrition by breaking down the complex organic molecules to simpler organic compounds and ultimately into inorganic nutrients.				
4j	CO4	To protect soil from erosion, a form of inter cropping is done in which crops are planted between rows of trees or shrubs. This form of intercropping is called _____				

Q5 Fill in blanks questions (10x2=20 Marks)

5a	CO3	Effects of Ozone Depletion is /are	Biomagnification	It will result in decrease in their population thereby affecting the population of zooplankton, fish, marine animals, in fact the whole aquatic food chain.	Both (a) and (b)	None of these
5b	CO4	You are a solid waste management specialist of X town. During one of your official visit you find that X city is facing a problem for disposing solid waste. So you propose a technique in which garbage is spread out in thin layers, compacted and covered with clay or plastic foams. The bottom layer of garbage is covered with an impermeable liner, usually several layers of clay, thick plastic and sand. The liner protects the ground water from being contaminated due to percolation of leachate. Leachate from bottom is pumped and sent for treatment. Name this proposed technique/ method _____				

5c	CO2	_____aquifers which are overlaid by permeable earth materials and they are recharged by water seeping down from above in the form of rainfall and snow melt whereas _____aquifers are sandwiched between two impermeable layers of rock or sediments and are recharged only in those areas where the aquifer intersects the land surface.				
5d	CO1	NBPGR stands for _____and is located in _____				
5e	CO1	The Antarctic ozone hole was discovered by _____ and his colleagues in the British Antarctic Survey who had been recording ozone levels over this region since _____year				
5f	CO4	Suggest a control method, which can be adopted to control adverse effect of acid rain on lake and river water quality.				
5g	CO3	It is estimated that the earth's mean temperature will rise between _____°C to _____°C by 2050				
5h	CO2	The main greenhouse gas _____is absorbed by the forests as a raw material for _____				
5i	CO1	Bhakra dam is situated on river _____in _____				
5j	CO1	Each food level is known as _____and the amount of living matter at a given time is known as _____				

Q6 Multiple answers questions (10x2=20 Marks)

6a	CO4	It is witnessed that in rural area, villagers are opting for biogas as a fuel. Select the reasons due to which biogas is becoming a popular choice among the villagers	cheap	clean	non polluting	All of these
6b	CO3	The effects of air pollution on plant is/ are	necrosis	abscission	epinasty	All of these
6c	CO2	Chemical conditioners like _____when applied to sodic soils improve _____and reduce run off.	gypsum, soil permeability	eldrin, soil pH	humus, soil fertility	DDT, soil fertility
6d	CO1	_____of Rajasthan popularly known as "water man" has been doing a commendable job for harvesting rainwater by _____in Rajasthan	Ashok Gehlot, building roads	Rajendra Singh, building checkdams	Sachin Pilot, afforestation	R.K.Pachuri, controlling global warming
6e	CO1	Earthquake-generated water waves called _____ can severely affect coastal areas. These giant sea swells can move at a speed upto _____Km/hr or even faster.	Tsunamis,1000	Willy Willies,100	Saltation,500	Suspension,500
6f	CO4	Suggest the measures which help in in-situ conservation of biodiversity	Zoo	Garden	National park	All of these
6g	CO3	Easy absorption of UV rays by the lens and _____of eye will result in increase in incidents of _____	cornea,cataract.	Pupil, cancer	Iris, TB	optic nerve, typhoid
6h	CO2	_____, the lowermost layer of the atmosphere, traps _____by a natural process due to the presence of certain gases. This effect is called greenhouse effect.	Troposphere, heat	Stratosphere, moisture	Mesosphere, cold	Thermosphere, steam

6i	CO1	The direct use values where the biodiversity product can be harvested and consumed directly is known as _____ value of biodiversity.	Consumptive	Productive	Social	Aesthetic
6j	CO1	The International Union for Conservation of Nature and Natural Resources (IUCN) publishes the _____ which includes the list of _____ species of plants and animals.	red data book, endangered	yellow data book, extinct	green data book, vulnerable	brown data book, vulnerable