SNS COLLEGE OF ENGINEERING

Vazhiampalayam, Coimbatore-35

(An Autonomous Institution)

Course: 23MCT003 / Environmental Science & Sustainability

Question Bank

UNIT I

1. Describe the structure and component of ecosystem.
2. Explain Energy flow in ecosystem
3. Describe the types and process of ecological succession
4. Justify India as biodiversity.
5. Write briefly the values and threats to biodiversity
6. Explain the conservation of biodiversity (In- situ and ex- situ)

Unit II

1. Explain the major sources of air pollution and their effec5t on human and environment
2. Explain water quality parameter and sewage water treatment
3. Explain sources of soil pollution and method for municipal waste treatment
4. Explain hazardous waste management and steps involved in it
5. What is e- waste? Explain the significance and measures of e waste management
6. Write the objectives and features of Air and Wild life protection act

Unit III

1. Define energy conservation, principle and steps involved in it.
2. What is energy conservation and write at least 10 steps for energy conservation
3. Write in detail about Hydrogen energy, production and its application in fuel cells

4. What are the different ways in which solar energy can be harnessed?
5. Explain how energy from oceans can be utilized is Ocean thermal energy conversion plants and tidal enegy
6. Describe the origin concept and advantages and disadvantages of GTE

Unit IV

1. Explain the types, characteristics and steps of development
2. Write briefly on GDP, its types, method of calculation and mention its advantages
3. Define sustainability and its various aspects and elements of sustainability
4. Write any 6 SDG's , targets and goal indicators
5. Explain different types of carbon credits and its advantages and disadvantages
6. Explain carbon footprint and suggest measures to bring down carbon footprint
7. Explain the 7 principles of environment management

Unit V

1. Explain Zero waste and R concept
2. Define Circular economy and its benefit
3. What is LCA. Mention its advantages and disadvantages
4. Explain Sustainable buildings, use of green materials and sustainable habitat
5. What are the ways to improve and promote Sustainable transportation?
6. Explain Carbon sequestration and variousmethods of carbon sequestration.

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UNITI:ENVIRONMENT,ECOSYSTEMSANDBIODIVERSITY

PARTA

1. What is an eco system?
2. Define environment.
3. What are biotic and abiotic components of an ecosystem?
4. Whatarethecomponentsofecosystem?
5. WhatisanAbioticEnvironment?
6. Definedecomposersandgivetheirsignificance.
7. Whatdoyoumeannaturalresources?Giveexamples.
8. Givethesignificanceoffoodchainandfoodweb.
9. Whatare food chains andfoodwebs?
10. WhatisEcologicalpyramids?
11. DefineEcology. (May/Jun2014)
12. Whydo we needenvironmentalist?
13. Differentiatebetweenendangeredandendemicspecies.
14. Whatarecalledendangeredspecies?
15. Whatiscalled endemicspecies?
16. Defineprimarysuccessionandsecondarysuccession.
17. Defineprimaryproductionandsecondaryproduction.
18. Definebiodiversity.
19. Whatisbiodiversityandwhatisitssignificance?
20. WritetheclassificationofBiodiversity?
21. Differentiatein-situandex-situconservationinbiodiversity.
22. Definegeneticdiversityandspeciesdiversity.

23. Definespeciesdiversity. (Nov/Dec2010)
24. Whatdoyouunderstandbyspeciesbiodiversity?Giveoneexample.
25. DefineEcosystemdiversity.
26. Whybiodiversityrichintropics?
27. Define keystonespecies withsuitableexample.

PARTB

1. Whatisanecosystem? Describethe structureandfunctionof anecosystem.

2. Explainbrieflytheenergyflowthroughecosystem.

3. Whatdoyoumean byhot spotsof biodiversitythat extendin India?

4. Explainthevaluesof biodiversityinIndia.

5. Explainthefactorsthatgivethreat tobiodiversity.

6. "Indiaisamegadiversitynation"–Discuss.

7. Whichare thebiodiversityhotspotsinIndia?Whatarethethreats theyface?

8. DefineIn-situandEx-situconservationofbiodiversityandexplain.

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UNITII:ENVIRONMENTALPOLLUTION

PARTA

1. List out the effects of soil pollution
2. Write the significance of Hazardous Waste management.
3. List out the effects of noise pollution
4. Write the significance of E-Waste management.
5. Definepollution.
6. Classifythesourcesofairpollution.
7. Differentiate between primary and secondary air pollutants.
8. Definephotochemicalsmog.
9. Writeanytwo causesofsoil pollution.
10. Namethesourcesofsoil pollution
11. Whatdoyou understandbysoil pollution?
12. Differentiatebetweensoundandnoise.
13. Whatisnoisepollution?(Nov/Dec2013)
14. What are the causes of noise pollution. (Nov/Dec2010)
15. Writeanyfourmajor waterpollutants.
16. What are point and non point sources of water pollution
17. Listanyfourwaterqualityparametersandtheirimportance.
18. Listouttheimportant causesof waterconflicts.
19. WhatismeantbyBODandCOD?
20. Define solid waste.
21. Define Hazardous wastes.
22. Define hazardous waste management

23. What is e-waste?
24. Define e-waste management
25. Define OHASMS.
26. State a few drawbacks of pollution related acts.
27. Write the objectives of forest conservation act.
28. What are the drawbacks of wildlife protection act, 1972.
29. What are the objectives of water act?

PARTB

1. Discuss in detail on causes, effects and control measures of soil pollution
2. Explain the role of individual in hazardous waste management.
3. Give in detail steps involved in Solid Waste Management and effect of wastemanagement.
4. Explainthecauses,effectsandControlmeasuresofAirPollution.
5. Describetheroleofindividualinthepreventionofpollution.
6. Whatisnoise?Howisnoise pollutioncontrolled? Suggest suitablesteps.
7. Explainthesources,effectsandcontrol methodsofnoisepollution.
8. Discussthesignificanceofanysixparametersofdrinkingwaterqualitystandards.
9. Explainthecauses,effectsandcontrol measuresofwaterpollution.
10. Writeabout oneoftheindustrial wastewatertreatmenttechniques,withaneatschematicdiagram
11. What are e-wastes? Explain its preventive measures.
12. What is OHASMS? Explain it with any one case study.

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UNIT III RENEWABLE SOURCES OF ENERGY

PART-A

1. Write a note on Tidal energy
2. Classify the different types of energy of Energy sources
3. List out the significance of Geothermal Energy.
4. Define energy management.
5. Mention the objectives of energy management.
6. What is energy conservation? How it is achieved.
7. What are the problems of using hydrogen as a new energy source.
8. What is the significance of OTE?
9. What is the significance of Geo-thermal energy?
10. What is solar energy?
11. What is Bio-mass energy?
12. What is the important use of Artificial intelligence in energy sector?
13. What is DESS? Mention its components.
14. Mention the applications of hydrogen energy.
15. How does fuel cell works?
16. Mention some disadvantages of hydrogen fuel cell.
17. Give any five applications of tidal energy conservation.
18. Difference between Geothermal power and Geothermal energy.
19. Give some important applications of GTE.

PART-B

1. Briefly explain the methods of harvesting

Solar Energy

Wind Energy

2. Discuss the sources of Ocean energy and the linkage between the energy and environment
3. Elaborate the Concepts and powerplants of Geothermal Energy

4. Explain the principle and various steps involved in the energy management.
5. Explain the ways through which conservation of energy is made.
6. Write detailed notes on new energy sources.
7. Explain the applications of hydrogen energy.