

EVS sessionals(CIE 1052) : 2019 (Answer key)

Q1. MCQ: Which one of this is a non-renewable source of energy

1. Biomass
2. wind
3. hydro
4. ** nuclear

Q2. MCQ: The Taj Mahal is being affected by

- a. Noise pollution
- b. ** Air pollution
- c. Water pollution
- d. None of these

Q3. MCQ: Which gas is mainly emitted from high temperature combustion?

- a) CO
- b) NH₃
- c)** NO_x
- d) SO_x

Q4. MCQ: Which of the following is not a secondary air pollutant?

- a) Particulate matter formed from gaseous primary pollutants
- b) PAN
- c)** Volatile organic compounds (VOC)
- d) Ground level ozone

Q5. MCQ: Who is the first women to win Nobel Prize in economics especially the commons?

- a) Rachael carson
- b)** Elinor ostrom
- c) Winona laduke
- d) Berta Caceres

Q6. MCQ: Paris climate agreement is otherwise known as:

- a) COP20
- b)** COP21
- c) COP22
- d) COP23

Q7. MCQ: Tree canopy Density<70%>40% is referred to as:

- a) Open forest
- b) Very dense forest
- c)** Moderately dense forest
- d) None of them

Q8. MCQ: In an idealised soil profile the horizon with loose and partly decayed organic matter are known as:

- a) A horizon
- b) E horizon
- c) C horizon
- d)** O horizon

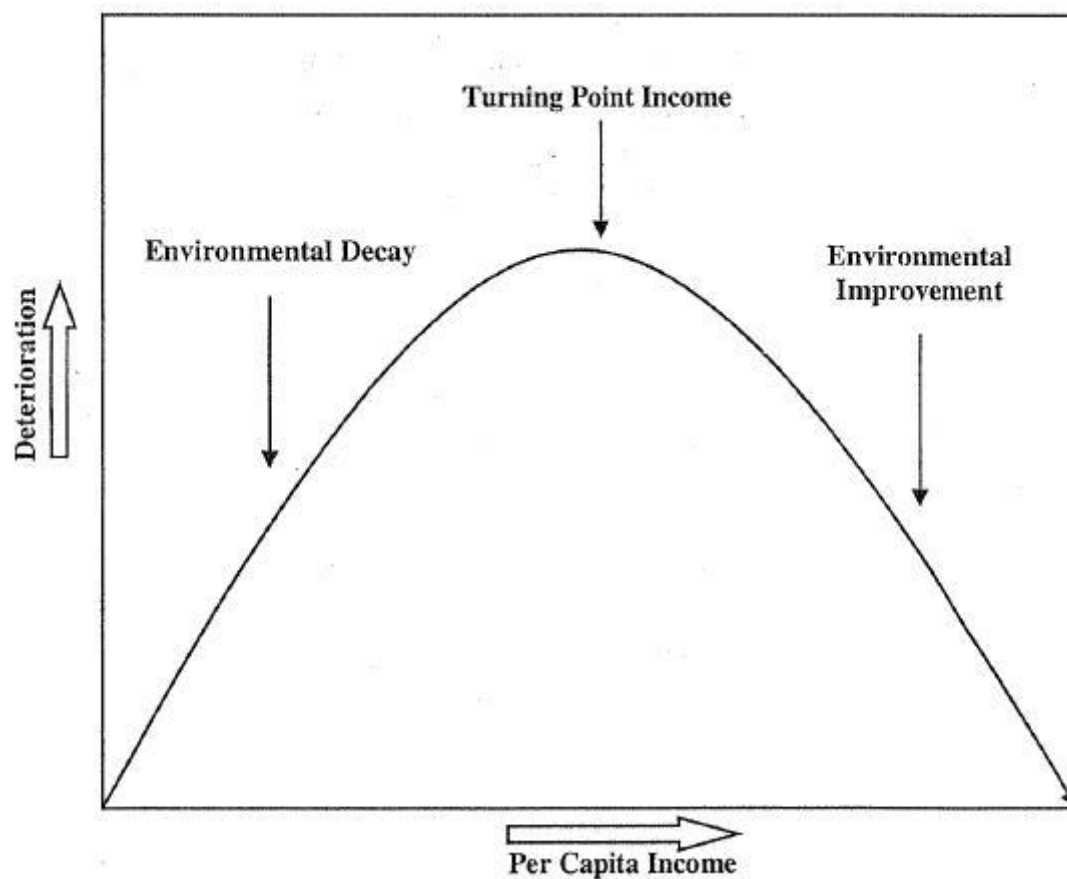
Q9. MCQ: Which German biologist first coined ecology who defined it as 'The comprehensive science of relationship of organism to environment'?

- a) Michael otto
- b)** Ernst hoeckl
- c) Achim steiner
- d) Gerhard thielcke

Q10. MCQ: Which is a mobile technology-based platform where a farmer can call a toll-free number to report a wildlife-conflict related incident?

- a) **Wild seve
- b) Inaturalist
- c) ebird
- d) India biodiversity portal

Q11.DES: Explain Environmental Kuznets curve with a neat sketch. (2 marks)



Sketch – 01 mark

Explanation (01 mark): This understanding got carried forward to the environment as well. As a country is developing, it will consume resources at a rate which will cause environmental decay, but after a certain point, environmental decay will come to a halt and will start to improve.

Q12.DES: What is Rain water harvesting? Explain how turning tides could be converted into usable energy. (2 marks)

Rainwater harvesting is the process of augmenting the natural filtration of rainwater in to the underground formation by some artificial methods. Conscious collection and storage of rainwater to cater to demands of water, for drinking, domestic purpose & irrigation is termed as Rainwater Harvesting. (0.5 marks)

- A dam (barrage) is built across the mouth of an estuary. (0.5 marks)
- Sluice gates allow incoming tides to fill the basin. (0.5 marks)
- As the tide ebbs (receding tide), the water is forced through a turbine system to generate electricity. (0.5 marks)

Q13.DES: What are Ecological pyramids? Explain the different types of Ecological pyramids.

Graphical representation of the number, biomass and energy of the successive trophic levels of ecosystem. (0.5 marks)

Explaining pyramid of energy, biomass, number each carrying 0.5 marks (0.5 X 3 = 1.5)

Q14.DES: Briefly discuss the clean-up procedure for soil pollution. (Any 4) (2 marks)

Excavate soil and take it to a disposal site away from ready pathways for human or sensitive ecosystem contact. Aeration of soils at the contaminated site. (0.5)

Thermal remediation by introduction of heat to raise subsurface temperatures sufficiently high to volatilize chemical contaminants out of the soil for vapor extraction. (0.5)

Bioremediation, involving microbial digestion of certain organic chemicals. Techniques used in bioremediation include landfarming and bioaugmentation of soil biota. (0.5)

Phytoremediation, or using plants to extract heavy metals. (0.5)

Q15.DES: In Sundarbans, rising sea levels have turned farms into wasteland, threatening to displace million. Discuss.

Explanation in brief with respect to case study 1, explaining issues, elevation of Sundarbans, variation in the inundations and its projection and solutions like Zoning according to vulnerability, Planning, rehabilitation and relocation, Embankments, Creating opportunities that do not depend on nature (2 marks can be awarded if all these points are covered)