

CUET UG Environmental Science (307) - 2025 Question Paper

Time Allowed :1 Hour	Maximum Marks :250	Total Questions :50
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. The test is of 1 hour duration.
2. The question paper consists of 50 questions. The maximum marks are 250.
3. 5 marks are awarded for every correct answer, and 1 mark is deducted for every wrong answer.

1. The Ecological Debt Day (Earth shoot day) is calculated as follows:

- (A) $(\text{World Biocapacity} / \text{World Water footprint}) \times 365$
- (B) $(\text{World Biocapacity} / \text{World Carbon footprint}) \times 365$
- (C) $(\text{World Biocapacity} / \text{World Ecological footprint}) \times 365$
- (D) $(\text{World Biocapacity} / \text{World Ecosystem Services}) \times 365$

2. The first Earth Day was celebrated on _____.

- (A) 22 April, 1971
- (B) 22 April, 1972
- (C) 22 April, 1970
- (D) 22 April, 1973

3. Which of the following Environmental Ethics includes preservation of wild plants and animals, control of the human population and simple living?

- (A) Social Ecology
- (B) Shallow Ecology
- (C) Deep Ecology
- (D) Green Ecology

4. Who among the following coined the term of "Oekology"?

- (A) E. P. Odum
- (B) Arne Naess
- (C) A. G. Tansley
- (D) Ernst Haeckel

5. Diversity of organism which share the same community/habitat and also called as local diversity, is referred to as

- (A) Beta diversity
- (B) Gamma diversity
- (C) Alpha diversity
- (D) Genetic diversity

6. Match List-I with List-II

List-I (Environmental law)	List-II (Year)
(A) The Wildlife (Protection) Act	(I) 1972
(B) The Indian Forest Act	(II) 1927
(C) The Madras Wild Elephant Preservation Act	(III) 1960
(D) The Cruelty Against Animal Act	(IV) 1873

Choose the correct answer from the options given below:

- (A) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (B) (A) - (I), (B) - (III), (C) - (II), (D) - (IV)
- (C) (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (D) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

7. The theory which states that "the population grows geometrically whereas resources like food grow arithmetically", was given by

- (A) Julion Simon
- (B) Friedrich Engels
- (C) T. R. Malthus
- (D) W. Thompson

8. The species that invades a bare area is referred to as _____.

- (A) sere(s)
- (B) pioneer
- (C) mesic
- (D) climax

9. Match List-I with List-II

List-I (Name of Ecosystem)	List-II (Name of commonly found producer)
(A) Deserts	(I) Cymbopogon
(B) Grasslands	(II) Capparis
(C) Ponds and Lakes	(III) Hydrilla
(D) Moist deciduous forests	(IV) Tectona

Choose the correct answer from the options given below:

- (A) (A) - (III), (B) - (II), (C) - (I), (D) - (IV)
- (B) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (C) (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
- (D) (A) - (II), (B) - (I), (C) - (III), (D) - (IV)

10. Break down of detritus into smaller particles by earthworm in an ecosystem is referred to as -----.

- (A) leaching
- (B) catabolism
- (C) fragmentation
- (D) humification

11. Arrange the following ecological succession in the lithosphere (rocks) from initial to final succession stages

- (A) Moss stage
- (B) Foliose-lichens stage
- (C) Herbaceous stage
- (D) Crustose-lichens stage
- (E) Shrub stage

Choose the correct answer from the options given below:

- (A) (B), (A), (D), (C), (E)
- (B) (D), (B), (A), (C), (E)
- (C) (B), (D), (A), (C), (E)

(D) (A), (B), (D), (C), (E)

12. Match List-I with List-II

List-I (National Park)	List-II (State)
(A) Dudhwa	(I) Madhya Pradesh
(B) Kanha	(II) Karnataka
(C) Bandipur	(III) Uttar Pradesh
(D) Kaziranga	(IV) Assam

Choose the correct answer from the options given below:

- (A) (A) - (IV), (B) - (I), (C) - (III), (D) - (II)
(B) (A) - (III), (B) - (I), (C) - (II), (D) - (IV)
(C) (A) - (II), (B) - (I), (C) - (III), (D) - (IV)
(D) (A) - (I), (B) - (III), (C) - (IV), (D) - (II)

13. In which of the following types of population interactions, one species is benefited while another species is being harmed?

- (A) Competition
(B) Parasitism
(C) Amensalism
(D) Predation

Choose the correct answer from the options given below:

- (A) (A), (B) and (D) only
(B) (B), (C) and (D) only
(C) (B) and (D) only
(D) (C) and (D) only

14. Which of the following population growth equation correctly represents the Verhulst-Pearl Logistic growth equation? [Where N =population density at time t; r = intrinsic rate of natural increase; K= carrying capacity]

- (A) $\frac{dN}{dt} = rN \frac{(N-K)}{K}$
(B) $\frac{dN}{dt} = rN \frac{(K-N)}{K}$
(C) $\frac{dN}{dt} = rN \frac{(K-N)}{N}$
(D) $\frac{dN}{dt} = rN \frac{(N-K)}{N}$

15. Energy flow in an ecosystem is always -----

- (A) Cyclic
 - (B) Multidirectional
 - (C) Bidirectional
 - (D) Unidirectional
-

16. Which one of the following is a primary air pollutant?

- (A) Ash from a volcanic eruption
 - (B) Tropospheric Ozone
 - (C) Stratospheric Ozone
 - (D) PAN
-

17. Most of the agricultural runoff and chemical fertilizers used in farming end up in water bodies, which leads to eutrophication. The nutrients responsible for eutrophication are

- (A) Nitrogen and Potassium
 - (B) Nitrogen and Phosphorus
 - (C) Phosphorus and Potassium
 - (D) Nitrogen and Boron
-

18. Which one of the following are the commonly used oxidants in COD (Chemical Oxygen Demand) assays?

- (A) $\text{K}_2\text{Cr}_2\text{O}_7 + \text{HNO}_3$
 - (B) $\text{K}_2\text{Cr}_2\text{O}_7 + \text{HCL}$
 - (C) $\text{K}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{SO}_4$
 - (D) $\text{KMnO}_4 + \text{HCL}$
-

19. Which one of the following soil types is most suitable for good plant growth and agriculture?

- (A) Sandy soils
- (B) Clayey soils
- (C) Silty soils

(D) Loamy soils

20. Which of the following are acid forming precursor gases and causes acid rain?

- (A) O₃ and SO₂
- (B) NO₂ and SO₂
- (C) CO₂ and SO₂
- (D) NO₂ and NH₃

21. Which of the following diseases is NOT a water-borne disease?

- (A) Cholera
- (B) Giardiasis
- (C) Bronchitis
- (D) Dracontiasis

22. Which of the following techniques is not appropriate/used for air pollution control?

- (A) Bag House Filter
- (B) Cyclone Separator
- (C) High Volume Sampler
- (D) Electrostatic Precipitator

23. Match List-I with List-II

List-I (Soil component)	List-II (Definition)
(A) Azonal soils	(I) An individual natural aggregate of soil particles.
(B) Regoliths	(II) Organisms living in the soil or ground
(C) Ped	(III) Soils have uniformity from the top-surface to the base, and do not have well-developed soil horizons.
(D) Edaphons	(IV) Zone of loose and unconsolidated weathered rock materials.

Choose the correct answer from the options given below:

- (A) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
 (B) (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
 (C) (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
 (D) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

24. Arrange the following gases in increasing order of their concentrations in the Earth's atmosphere.

- (A) Oxygen
 (B) Carbon dioxide
 (C) Nitrogen
 (D) Argon
 (E) Neon

Choose the correct answer from the options given below:

- (A) (B), (E), (D), (A), (C)
 (B) (E), (D), (B), (A), (C)
 (C) (C), (A), (D), (B), (E)
 (D) (E), (B), (D), (A), (C)

25. Match List-I with List-II

List I Content of humus	List II Percentage of contents
(A) Carbon	(I) 35-40%
(B) Oxygen	(II) 5%
(C) Hydrogen	(III) 55-60%
(D) Nitrogen	(IV) 15%

Choose the correct answer from the options given below:

- (A) (A) - (III), (B) - (I), (C) - (II), (D) - (IV)
 (B) (A) - (III), (B) - (II), (C) - (IV), (D) - (I)
 (C) (A) - (III), (B) - (I), (C) - (IV), (D) - (II)
 (D) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

26. In which process, waste material is burnt in absence of oxygen?

- (A) Incineration
 (B) Pyrolysis
 (C) Gasification
 (D) Composting

27. Catalytic converters fitted in vehicles are used for.....

- (A) oxidation of NO_x , CO and hydrocarbons.
- (B) oxidation of CO and reduction of NO_x .
- (C) reduction of CO_2 and oxidation of NO.
- (D) oxidation of CO, and reduction of NO_2 and volatile organic carbons.

28. Which of the following traditional rainwater harvesting systems is/are commonly used in the state of Bihar?

- (A) Eris
- (B) Ahar
- (C) Surangams
- (D) Pyne

Choose the correct answer from the options given below:

- (A) (B) only
- (B) (B) and (C) only
- (C) (A) and (C) only
- (D) (B) and (D) only

29. Which of the following are associated with Gandhian concepts of holistic development of the nation?

- (A) Antodaya
- (B) Sarvodaya
- (C) Panchayti Raj
- (D) Reverse migration

Choose the correct answer from the options given below:

- (A) (A) and (B) only
- (B) (A), (B) and (C) only
- (C) (B) and (C)
- (D) (A), (B), (C) and (D)

30. Which of the following is a suitable example of sedimentary cycle?

- (A) Carbon cycle
- (B) Oxygen cycle
- (C) Nitrogen cycle

(D) Phosphorous cycle

31. Decentralised Waste Water Treatment (DEWAT) system has.....

- (A) Low primary investment.
- (B) Easy to operate and maintenance.
- (C) Baffled filter reactor filled with stone for filtration.
- (D) First three chambers for sedimentation of sludge.

Choose the correct answer from the options given below:

- (A) (A), (B) and (D) only
 - (B) (A), (B) and (C) only
 - (C) (A), (B), (C) and (D)
 - (D) (B), (C) and (D) only
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32. The resources which are available but are not yet explored due to lack of technology are referred to as

- (A) Reserve resources
 - (B) Potential resources
 - (C) Stock resources
 - (D) Actual resources
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33. Who among the following is known as the Father of the Green revolution and was also awarded the Nobel Peace Prize in the year 1970?

- (A) M. S. Swaminathan
 - (B) Norman Fukuoka
 - (C) Norman E. Borlaug
 - (D) Borlaugh Fukuoka
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34. Organoponics is a labor-intensive form of local agriculture using organic methods. The concept of Organoponics was first evolved in

- (A) India
- (B) Srilanka
- (C) China
- (D) Cuba

35. "Sale of products like smartphones interconnected by a network" is a close example of _____.

- (A) positive production externalities
- (B) negative consumption externalities
- (C) positive consumption externalities
- (D) negative production externalities

36. Arrange the following greenhouse gases in ascending order of their contribution to global warming.

- (A) CH₄
- (B) N₂O
- (C) CFCs
- (D) CO₂

Choose the correct answer from the options given below:

- (A) (A), (B), (C), (D)
- (B) (B), (C), (A), (D)
- (C) (C), (B), (A), (D)
- (D) (A), (C), (B), (D)

37. Arrange the following electromagnetic radiations in ascending order of their frequency.

- (A) Micro-wave
- (B) Radio-wave
- (C) Gamma Rays
- (D) UV Rays
- (E) Infrared radiations

Choose the correct answer from the options given below:

- (A) (A), (B), (C), (D), (E)
- (B) (C), (D), (A), (B), (E)
- (C) (B), (A), (E), (D), (C)
- (D) (D), (C), (B), (A), (E)

38. Which of the following are push factors for rural to urban migration?

- (A) Flood
- (B) Political instability
- (C) Better job opportunities

(D) High agricultural yields

Choose the correct answer from the options given below:

- (A) (A), (B) and (C) only
 - (B) (B) and (D) only
 - (C) (A) and (B) only
 - (D) (B), (C) and (D) only
-

39. Ecosystem provides us food, raw materials, genetic resources. This is a close example of -----.

- (A) Regulating ecosystem services
 - (B) Supporting ecosystem services
 - (C) Cultural ecosystem services
 - (D) Provisioning ecosystem services
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40. Which of the following treaty is known for ban on production and use of ozone depleting substances?

- (A) Kyoto protocol
 - (B) Montreal protocol
 - (C) Paris agreement
 - (D) Geneva protocol
-

Comprehension Passage:

Read the passage and answer the following questions (41 to 45).

International trade is the result of specialization in production. It benefits the world economy if different countries practice specialization and division of labor in the production of commodities or provision of services. Each kind of specialization can give rise to trade. Thus, international trade is based on the principle of comparative advantage, complementarity and transferability of goods and services. In principle, international trade should be mutually beneficial to trading partners. In modern times, trade is the basis of the world's economic organization, such as the WTO, and is related to the foreign policy of nations. With well-developed transportation and communication systems, no country is willing to forgo the benefits derived from participation in international trade. There are various factors which can be the basis of international trade, such as differences in national resources, population factors (size and cultural diversity), stage of economic development, extent of foreign investment, transport facilities etc. The world's natural resources are unevenly distributed because of differences in their physical settings i.e., geology, relief, soil and climate. Further, the size, distribution and diversity of people between countries affect the type and volume of goods traded. At different stages of economic development of

countries, the nature of items traded undergo changes. Moreover, foreign investment can boost trade in developing countries that lack capital required for the development of mining, oil drilling, heavy engineering and plantation agriculture.

41. Which of the following is NOT an acceptable foundation for international trade?

- (A) Production of a specific commodity
 - (B) Mutual benefits for trading countries
 - (C) Conflicts in foreign policies of trading countries
 - (D) Better transportation facilities between trading countries
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42. Which among the following is a TRUE statement?

- (A) In agriculturally important countries, agricultural products are expected to be exchanged for manufactured goods.
 - (B) Industrialized nations are expected to import machinery and finished products and export food grains and other raw materials.
 - (C) The countries which are pioneers in the research and development of defense technology are expected to import state-of-the-art defense technology from Third World.
 - (D) The stage of economic development of a country does not impact the nature of traded products.
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43. Which of the following is the closest example of internationally traded product due to climatic factors?

- (A) Export of textiles from Bangladesh
 - (B) Export of the finest porcelain from China
 - (C) Export of Banana from the tropical regions
 - (D) Export of Batik cloth (a prized handicraft) from Indonesia
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44. Which of the following was formerly known as the General Agreement for Tariffs and Trade?

- (A) World Transportation Organization
 - (B) World Tariffs Organization
 - (C) World Trade Organization
 - (D) World Taxation Organization
-

45. An initial form of a trade system in primitive societies, where the direct exchange of goods was practiced, is known as

- (A) Barabrian System
- (B) Slave Trade System
- (C) Barter System
- (D) Salarium system

Comprehension Passage:

Read the passage and answer the following questions (46 to 50).

Agricultural productivity is affected by physical, socioeconomic, institutional and organizational factors, besides the attitude of farmers and their managerial skills. On the whole, Indian agriculture doesn't show high productivity, though there is an improvement in this sector since independence. Green revolution was introduced in 1967-68, as a new agricultural strategy woven around the usage of high yielding varieties (HYV) of seeds and included inputs such as chemical fertilizers and pesticides, assured water supplies, power supply at subsidized rates, access to credit facilities etc. As a result of Green Revolution, foodgrains production rose sharply. The main beneficiaries of Green revolution programme were Punjab, Haryana and western Uttar Pradesh in terms of wheat production and the deltaic regions of east coast in terms of rice. Ninety percent of the farmers in India are marginal farmer with low land holdings. They practice subsistence farming characterized by uncertain yields, low incomes and low capital formation. Additionally, the excess usage of chemical fertilizers and pesticides have harmed the long-term fertility of soil.

46. Which factor is not responsible for low agricultural productivity in India?

- (A) Lack of credit facilities to the farmers.
- (B) Reclamation of degraded lands.
- (C) Uncertain monsoons and lack of irrigational facilities.
- (D) Small land holdings constrain farmers from adoption of mechanized operations.

47. Which of the following is not an advantage of the Green Revolution in India ?

- (A) Use of HYV seeds for cultivation.
- (B) Introduction of easy credit schemes for the marginal farmers.
- (C) Use of chemical fertilizers and pesticides.
- (D) Improvement of irrigation facilities in the dryzone areas.

48. Subsistence farming is not characterised by _____.

- (A) uncertainty in the crop yield
 - (B) poor capital gain to farmers
 - (C) dependence on natural resources
 - (D) reliance on modern farming tools and techniques
-

49. Which one of the following is not a measure to improve agricultural productivity?

- (A) Speedy implementation of land reforms.
 - (B) Special attention to dryland farming.
 - (C) Propagating scientific agricultural practices.
 - (D) Decreasing cropping intensity.
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50. Which of the following state of India was not a direct beneficiary of green revolution in its begining stage in 1970s?

- (A) Punjab
 - (B) Uttar Pradesh
 - (C) Rajasthan
 - (D) Haryana
-