ENVIRONMENT AND ECOLOGY – MCQ BOOKLET

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1. Environment and Sustainable Development

Basic Concepts of Environment and Ecology

1. 'Eco mark' is given to the Indian products that are

A. pure and unadulterated
B. rich in proteins
C. environment friendly
D. economically viable

Ans: C

APSC CCE Prelims Exam-2006

UPPCS Prelims-1998

The Eco Mark scheme was instituted by the Government of India in 1991 to encourage consumers to purchase products that are environmentally friendly and to reduce the adverse environmental impact of products. The mark is administered by the Bureau of Indian Standards (BIS).

2. Which of the following is/are the function(s) of environment?

- **1. Supplying resources**
- **2. Sustaining life**
- **3. Providing aesthetic services**

Select the correct answer using the code given below :

A. 1 only
B. 2 and 3 only
C. 1, 2 and 3
D. 1 and 3 only

Ans: C

UPSC CDS-1-2022

The environment is the source of all natural resources (minerals, water, air, forests, etc.) required for production and consumption. It sustains life by providing the necessary conditions for ecosystems and organisms to thrive (e.g., breathable air, habitable climate, nutrient cycles). It also offers non-material benefits like scenic beauty, recreational opportunities, and cultural/spiritual values (aesthetic services).

3. Which one of the following is an exhaustible but renewable natural resource ?

A. Solar energy
B. Water in usable condition
C. Soil
D. Landscape in its natural condition

Ans: B

UPSC CDS-1-2022

- Natural resources are broadly classified as renewable or non-renewable (exhaustible). - Renewable resources replenish naturally over time (e.g., solar energy, wind, water, soil, forests). - Non-renewable resources are finite and do not replenish at a rate comparable to consumption (e.g., fossil

fuels, minerals). - Soil is technically renewable through natural processes like weathering and decomposition, but this process is extremely slow (centuries to millennia to form a few inches of topsoil).

4. How can resources be classified on the basis of their origin?

A. Biotic and abiotic
B. Renewable and non-renewable
C. Individual and community
D. Potential and reserve

Ans: A

UPSC CDS-2-2023

Biotic resources are obtained from the biosphere and have life, such as forests, wildlife, fisheries, livestock, etc. Abiotic resources are non-living things, such as rocks, minerals, water, air, soil, metals, etc.

5. Ecological footprints is measured in the unit _____.

A. Global Hectares
B. Nanometer
C. Hoppus cubic foot
D. Cubic ton

Ans: A

GPSC Prelims CSP-2-2019

- Ecological Footprint measures resource consumption and waste assimilation demand against nature's ability to supply resources and absorb waste (biocapacity). - The unit standardizes productive land area based on its productivity.

6. Which of the following statements is/are correct regarding Bharati, The research Centre of India?

- **1. About 3000 km East of Maitri, the new Indian research base 'Bharati' is located.**
- **2. This is located approximately at 3500 meters above sea level.**
- **3. The station was commissioned to facilitate year-round scientific research activity by the Indian Arctic Programme.**

A. 1, 2 and 3
B. 2 and 3 only
C. 1 and 3 only
D. 1 only

Ans: C

GPSC Prelims CSP-2-2022

- Statement 1 is correct. India has two operational research stations in Antarctica: Maitri and Bharati. Bharati is located on the Larsemann Hills on the eastern coast of Antarctica, approximately 3000 km east of Maitri, which is located in the Schirmacher Oasis. - Statement 2 is incorrect. Bharati is located on the coast at the Larsemann Hills. Its altitude is very low, essentially at sea level, suitable for port operations and logistical support. Research stations on the Antarctic plateau, like the US Amundsen-Scott South Pole Station, are at high altitudes (around 2800-3500 meters), but Bharati is not. - Statement 3 is correct. Bharati is India's third research station in Antarctica (after Dakshin Gangotri and Maitri) and is designed as a permanent, all-weather facility to facilitate year-round scientific research activities under the Indian Antarctic Programme. It was commissioned in 2012.

7. The Centre of Science and Environment in New Delhi publishes a popular magazine. Select its name from the options given here:

A. Science Today
B. Down to Earth
C. Earth and Environment
D. Nature

Ans: B

GPSC Prelims CSP-2-2023

"Down to Earth" is a fortnightly magazine focusing on environment, development, and health.

8. What is the name of first Indian Research Station in the Arctic ?

A. Himadri
B. Maitri
C. Bharati
D. Dakshin Gangotri

Ans: A

HPPSC HPAS Prelims-2011

Himadri is India's first permanent research station located in the Arctic, established in 2008 in Ny-Ålesund, Svalbard, Norway.

9. Environment planning organization is :

A. CECRI
B. NEERI
C. ICAR
D. CEPHERI

Ans: B

HPPSC HPAS Prelims-2011

NEERI stands for National Environmental Engineering Research Institute. It is a research institute created and funded by the Government of India, under the Council of Scientific and Industrial Research (CSIR). NEERI is dedicated to research and developmental studies in environmental science and engineering and assists governmental bodies and industries in environmental planning, management, and pollution control.

10. Which one of the following agricultural practices is eco-friendly ?

A. Organic farming
B. Shifting cultivation
C. Cultivation of high yielding varieties
D. Growing plants in glass-houses

Ans: A

HPPSC HPAS Prelims-2014

UPPCS Prelims-1999

Organic farming is an agricultural system that uses naturally occurring substances and avoids synthetic fertilizers and pesticides, aiming to build healthy soil, conserve water, reduce pollution, and promote biodiversity, making it more environmentally sustainable than conventional farming methods.

11. सागरीय कृषि से आपका क्या अभिप्राय है ?

A. यह मत्स्य पालन की एक विशिष्ट शाखा है
B. यह सागरीय पौधों एवं जन्तुओं के कृषि से सम्बद्ध है
C. यह उन जल स्थानों से सम्बन्धित है जो ज्वार से प्रभावित हैं
D. उपर्युक्त सभी

Ans: A

HPPSC HPAS Prelims-2018

सागरीय कृषि (Mariculture) मत्स्य पालन (Aquaculture) की एक विशिष्ट शाखा है जो खारे जल के जीवों (मछली, मोलस्क, शैवाल आदि) के समुद्री वातावरण में या समुद्री जल से भरे टैंकों में पालन से संबंधित है।

12. Which of the following statements with reference to natural resources is/are FALSE?

- **1. Biotic resources are the resources obtained from biosphere and have life such as human beings, flora and fauna, fisheries, livestock etc.**
- **2. The resources which can be reproduced by physical, chemical or mechanical processes are known as non- renewable resources.**
- **3. The resources that occur over a very long geological time and take millions of years in their formation are called renewable resources.**

Choose the correct answer from the options given below:

A. 1 only
B. 2 and 3 only
C. 1 and 3 only
D. 2 only

Ans: B

HAS Prelims-2022

Understanding the fundamental classification of natural resources into renewable and non-renewable based on their ability to regenerate or be replenished is crucial.

13. What is the theme of "World Soil Day, 2019" ?

A. Stop Soil Erosion, Save our Future
B. Soils and pulses, a symbiosis for life
C. Be the solution to soil pollution
D. Caring for the Planet starts from the Ground

Ans: A

KPSC KAS Prelims-2017

World Soil Day is celebrated annually on December 5th by the Food and Agriculture Organization (FAO) of the United Nations. The theme for 2019 specifically focused on raising awareness about the critical issue of soil erosion and its detrimental impact on food security and the environment.

14. 'World Environment Day'.

A. 28
B. 08
C. 05
D. 25

Ans: C

KPSC KAS Prelims-2017

World Environment Day (WED) is the United Nations' principal vehicle for encouraging worldwide awareness and action for the protection of our environment. It was established by the UN General Assembly in 1972, following the Stockholm Conference on the Human Environment.

15. World Nature Conservation Day is celebrated annually on _____.

A. 28 July
B. 08 July
C. 05 June
D. 25 June

Ans: A

KPSC KAS Prelims-2017

World Nature Conservation Day is observed every year on July 28th.

16. When is the 'International Earth Day' celebrated?

A. 20th April
B. 5th June
C. 22nd April
D. 3rd March

Ans: C

MPPSC CS Prelims-2018

It was first celebrated on April 22, 1970, and is now a global event to raise awareness about environmental protection and conservation.

17. The laser system which is used for monitoring the environment is called

A. Radar
B. Sonar
C. Ledar
D. Lidar

Ans: D

MPSC CS Prelims-2015

- Lidar uses laser pulses to collect data. - It is a form of active remote sensing. - Applications include atmospheric science, topography, forestry, and more, making it a key tool for environmental monitoring. - Radar uses radio waves, Sonar uses sound waves.

18. Which of the following factors are included in chemical environment ?

- **(a) Temperature and soil**
- **(b) Water and soil**
- **(c) Vegetation and water**
- **(d) Human functions and Biological components**

Which of the statements given above is/are correct ?

A. Only (a) and (b)
B. Only (b)
C. Only (c) and (d)
D. None of the above

Ans: B

MPSC CS Prelims-2022

- The environment consists of physical, chemical, and biological components. - Chemical environment includes the chemical composition of air, water, and soil, as well as nutrients and pollutants.

19. "Environment means the sum total of all conditions agencies and influences which affect the development, growth, life and death of an organism, species or race". Who created this definition of environment ?

A. Universal Encyclopedia
B. Britannica Encyclopedia
C. A. C. Tansley
D. Jackie Smith

Ans: B

MPSC CS Prelims-2023

This specific phrasing is often cited as a standard definition found in general scientific or biological texts, sometimes attributed to encyclopedic sources to provide a foundational understanding of the term 'environment' in a biological or ecological context.

20. Statement-I: Growth of plants is smooth with a complete fertilizer. Statement-II: A complete fertilizer always contains N, P, K.

A. Both the statements are individually true and Statement II is the correct explanation of Statement I
B. Both the statements are individually true but Statement II is not the correct explanation of Statement I
C. Statement I is true but Statement II is false
D. Statement I is false but Statement II is true

Ans: A

UPSC NDA-1-2015

Statement I is true because a complete fertilizer provides the essential macronutrients (N, P, K) required for healthy and smooth plant growth. Statement II defines a complete fertilizer as one containing N, P, and K.

21. Which among the following is the unit of measurement of the "Ecological Footprint" ?

A. Global Hectare
B. Gallon Per Capita
C. Cubic Meter
D. Man Hour

Ans: A

OPSC CS Prelims-2018

The Ecological Footprint is a measure of human demand on nature. It represents the amount of biologically productive land and sea area required to produce the resources consumed and absorb the waste generated by a population or activity. The standard unit of measurement for the ecological footprint is the global hectare (gha).

22. Which of these natural resources is considered as non-renewable resource ?

A. Timber
B. Fossil Fuels
C. Solar Energy
D. Wind Energy

Ans: B

RPSC RAS Prelims-2023

Non-renewable resources are natural resources that exist in a fixed amount or are consumed faster than they can be naturally replenished on a human timescale.

23. Which one of the following is need on a non-conventional source of raw material for the paper production?

A. Bamboo
B. Casuarina
C. Sugarcane bagasse
D. Eucalyptus

Ans: C

TNPSC CS Prelims-2019

- Conventional paper pulp comes from wood (hardwoods and softwoods). - Non-conventional sources include agricultural residues (like bagasse, straw, cotton stalks), grasses (like sabai grass, bamboo), and recycled paper. - Using non-conventional sources can have environmental benefits, such as reducing deforestation.

24. Which of the following characteristics of science is not true?

- **(i) It is guided by natural law**
- **(ii) It is testable against the observable world**
- **(iii) It's conclusions are permanent**
- **(iv) It is falsifiable**

A. (ii), (iii) and (iv) only
B. (iii) and (iv) only
C. (iii) only
D. (iv) only

Ans: C

TNPSC CS Prelims-2022

Scientific knowledge is tentative and subject to revision; its conclusions are not permanent truths but represent the current best understanding based on available evidence.

25. Who has propounded the concept of "Limit to Growth'?

A. Club of Rome
B. UNESCO
C. Brundtland Commission
D. Agenda 21

Ans: A

UPPCS Prelims-2019

The concept of "Limits to Growth" was popularised by a controversial 1972 report commissioned by the Club of Rome. The report, authored by Donella Meadows and others from MIT, used computer simulations to model the consequences of resource depletion, population growth, industrial growth, pollution, and food production on the planet's future. It argued that continued growth on a finite planet could lead to societal collapse.

26. Generally, environment can be classified as following categories. Which among the following is NOT a part of such category?

A. Operational Environment
B. Physical Environment
C. Cultural Environment
D. Biological Environment

Ans: A

UPPCS Prelims-2020

Generally, environment is classified into broad categories such as Physical Environment (abiotic factors like land, water, air, climate), Biological Environment (biotic factors like plants, animals, microorganisms), and Cultural/Social Environment (human-made aspects, social structures, customs, technology).

27. Which of the following is NOT correctly matched?

A. International Centre for Research on Agro-Forestry - Nairobi
B. Indian Institute of Forest Management - Bhopal
C. Central Agro-Forestry Research Institute - Banda

D. Tata Energy Research Institute - New Delhi

Ans: C

UPPCS Prelims-2021

CAFRI is a national research institute under the Indian Council of Agricultural Research (ICAR) dedicated to research on agroforestry systems.

28. Given below are two statements, one is labelled as Assertion (A) and other as Reason (R) - Assertion (A) - Population control is necessary to maintain the environment of the country. Reason (R) - Due to the rapid increase in population, the environmental balance is maintained. Select the correct answer using the code given below -

A. Both (A) and (R) are true but (R) is not correct explanation of (A)

B. (A) is false but (R) is true

C. Both (A) and (R) are true and (R) is correct explanation of (A)

D. (A) is true but (R) is false

Ans: D

UPPCS Prelims-2023

Assertion (A) states that population control is necessary to maintain the environment. This is generally true, as large and rapidly growing populations can exert significant pressure on natural resources and contribute to environmental degradation. Reason (R) states that due to the rapid increase in population, the environmental balance is maintained. This is false. A rapid increase in population typically leads to increased demand for resources, pollution, and habitat loss, which disrupts, rather than maintains, environmental balance.

29. Which one of the following is NOT correct about organic farming ?

A. It does not use genetically modified seeds

B. Synthetic pesticides or fertilizers are not used

C. It uses minimal crop rotation

D. It uses ecologically protective practices

Ans: C

UPSC CAPF-2017

- Organic farming is an agricultural system that avoids the use of synthetic fertilizers, pesticides, herbicides, genetically modified organisms (GMOs), and growth hormones. (Statements A and B are correct). - It focuses on ecological balance, biodiversity conservation, and sustainable practices to maintain soil fertility and manage pests and diseases. (Statement D is correct). - Crop rotation is a fundamental practice in organic farming. It is used extensively to improve soil health, break pest and disease cycles, manage weeds, and diversify nutrient uptake from the soil, thereby reducing reliance on external inputs. Organic farming uses extensive, not minimal, crop rotation.

30. With reference to the circumstances in Indian agriculture, the concept of 'Conservation Agriculture' assumes significance. Which of the following fall under the Conservation Agriculture ?

- **1. Avoiding the monoculture practices**
- **2. Adopting minimum tillage**
- **3. Avoiding the cultivation of plantation crops**
- **4. Using crop residues to cover soil surface**
- **5. Adopting spatial and temporal crop sequencing/crop rotations**

Select the correct answer using the code given below :

A. 1, 3 and 4

B. 2, 3, 4 and 5

C. 2, 4 and 5

D. 1, 2, 3 and 5

Ans: C

UPSC IAS-2018

Conservation Agriculture (CA) is based on three key principles aimed at sustainable farming: minimum soil disturbance, permanent soil cover, and species diversity.

31. A country's natural capital includes all of the following except

A. forests

B. water
C. roads
D. minerals

Ans: C

UPPCS Prelims-2012

Natural capital refers to the natural resources and environmental services that are essential for human life and economic activity. It includes ecosystems, land, water, air, biodiversity, and geological resources. Roads are physical capital (or infrastructure), created by human effort.

32. The World Environment Day is celebrated on

A. December 1
B. June 5
C. November 14
D. August 15

Ans: B

UPPCS Prelims-2012

It was established by the United Nations General Assembly in 1972 and first celebrated in 1974.

33. Application of gypsum is required more in the crop of

A. Paddy
B. Berseem
C. Wheat
D. Groundnut

Ans: D

UPPSC Upper Mains-2007

Groundnut has a high demand for calcium, especially in the podding zone, which gypsum effectively supplies.

34. Which of the following trees is not eco-friendly?

A. Babul
B. Euclyptus
C. Neem
D. Pipal

Ans: B

UPPSC Upper Mains-2011

One major reason is their high water consumption, which can lower groundwater levels and negatively impact surrounding vegetation. They also release allelopathic chemicals that suppress the growth of other plants beneath them, reducing biodiversity.

35. Which Indian scientist is recognised by 'UNEP' as Father of Economic Ecology ?

A. B. P. Pal
B. Yash Pal
C. M. S. Swaminathan
D. R. Mishra

Ans: C

UPPSC Upper Mains-2007

M. S. Swaminathan's contributions bridge the gap between ecology and economics, focusing on increasing food production while ensuring ecological sustainability. This approach aligns with the concept of economic ecology.

36. According to Meadows (1972), if the present trends in world population, industrialisation, pollution, food production and resource depletion continue unchanged, the "Limits to Growth" on our planet will be reached in the next

A. 50 years
B. 100 years
C. 150 years
D. 200 years

Ans: B

UPPCS Prelims-1998

The book "The Limits to Growth," published in 1972 by the Club of Rome, used a world model (World3) developed by Donella Meadows and her colleagues at MIT. The study projected various scenarios based on the continuation of present trends in population growth, industrialization,

pollution, food production, and resource depletion. Their core finding suggested that, under a business-as-usual scenario, the physical limits to growth on Earth would be reached within the next 100 years, leading to a rapid and uncontrollable decline in population and industrial capacity.

37. Which of the following statements accurately describe the environmental impacts associated with agricultural practices ?

- **I. The application of synthetic fertilizers and pesticides may result in soil and water contamination.**
- **II. Sustainable agriculture focuses on preserving soil health and protecting biodiversity.**
- **III. Modern agricultural practices are unrelated to the depletion of freshwater resources.**
- **IV. Expanding monoculture farming supports overall ecosystem stability.**

A. II and IV
B. III and IV
C. I and III
D. I and II

Ans: D

APPSC Group-II-Mains-paper-2-2025

Statement I is accurate: Synthetic fertilizers and pesticides, when overused or improperly managed, can leach into soil and water bodies, causing contamination, including nutrient pollution (eutrophication) and toxicity to aquatic life and human health. Statement II is accurate: Sustainable agriculture aims to integrate practices that protect the environment, such as improving soil health through organic matter addition, reducing tillage, and using cover crops. It also promotes biodiversity through methods like crop rotation, agroforestry, and reducing reliance on chemical inputs. Statement III is inaccurate: Modern agricultural practices, particularly large-scale irrigation, are significant consumers of freshwater resources globally. In many regions, agricultural water use contributes heavily to the depletion of groundwater and surface water sources. Statement IV is inaccurate: Expanding monoculture farming (growing a single crop over vast areas) generally leads to reduced biodiversity, makes crops more susceptible to pests and diseases, and can degrade soil quality over time, thereby decreasing overall ecosystem stability and resilience.

38. On which date is 'World Environment Day' celebrated?

A. 4th June
B. 5th June
C. 6th June
D. 7th June

Ans: B

APPSC Group-II-Prelims-2018

APPSC Miscellaneous-2023

June 5th has been designated as World Environment Day by the United Nations General Assembly since 1972.

39. World Earth Day is celebrated on

A. 2nd May
B. 22nd April
C. 20th March
D. 28th February

Ans: B

WBCS_Main-Paper-4-2023

World Earth Day is an annual event celebrated globally on April 22nd to demonstrate support for environmental protection.

40. Which of the following pairs is/are NOT correctly matched? (Day) 1. International Ozone Day - 16 September 2. World Environment - 5 June Day 3. World Wildlife Day - 22 March Select the correct answer from the code given below: Code:

A. 1 and 3
B. 2 and 3
C. Only 3
D. Only 1

Ans: A

uppsc 2025-2025

This question requires knowledge of important international observance days related to environmental and wildlife conservation. It tests the accuracy of the dates associated with these events.

41. संचार उपग्रह के लिए सामान्य: उपयोग में ली जाने वाली कक्षा होती है

A. (1) ध्रुवीय कक्षा

B. (2) सौर तुल्यकालिक कक्षा

C. (3) भू-तुल्यकालिक कक्षा

D. (4) इनमें से कोई भी

Ans: C

JUNIOR ACCOUNTANT AND TRA -2013

Geostationary orbit is the most common orbit used for communication satellites due to its property of remaining stationary relative to a point on Earth.

42. Read the lines given below and answer the questions : "June 5th is celebrated as World Environment Day to spread public awareness all over the World towards environment safety and cleanliness. June 5th is celebrated as. Environment Day not to :

A. help environment

B. create awareness

C. maintain the originality of our environment.

D. spoil the safety and cleanliness of our environment.

Ans: D

Protection Officer -2018

This question requires careful reading comprehension of a short passage. It tests the ability to identify what an event or observance is not for, based on the stated purpose.

43. 'Earth Day' is celebrated on

A. 22nd April

B. 5th April

C. 22nd May

D. 2nd February

Ans: A

Sr. Teacher Gr II (Sec. Edu.) Comp. Exam 2022 (G.K. Group A)-2022

Government Polytechnic Lecturer Group B Exam 2015 16-2015

This is a general knowledge question about a globally recognized day dedicated to environmental protection.

44. Which one of the following is correct about social forestry? A) Social forestry concept in India was first used in the year 1987. B) Social forestry helps in management and protection of environment, society and rural development. C) Social forestry projects increase the pressure on existing forests. D) Social forestry scheme is not related to farm forestry, community forestry, extension forestry and agroforestry.

A. Social forestry concept in India was first used in the year 1987.

B. Social forestry helps in management and protection of environment, society and rural development.

C. Social forestry projects increase the pressure on existing forests.

D. Social forestry scheme is not related to farm forestry, community forestry, extension forestry and agroforestry.

Ans: B

APPSCCE 2020 Prelims-2020

Social forestry is an approach that aims to involve local communities in tree planting and forest management on non-forest lands. Its primary goals are to protect the environment, benefit society, and foster rural development. It encompasses various practices like farm forestry, community forestry, and agroforestry, and its implementation is intended to reduce pressure on natural forests.