

GREEN
Olympiad

Question
Paper

October 16, 2019

Organized by



INSTRUCTIONS

1. This paper contains a total of 20 pages.
2. Questions are organized on the basis of 3 (three) levels.
3. There are 50 questions with multiple choice of answers for each level.
4. Please identify the questions for your level.

Level 1	Classes 4 and 5	Questions 1–50	On page no. 1–4
Level 2	Classes 6, 7 and 8	Questions 51–100	On page no. 5–9
Level 3	Classes 9 and 10	Questions 101–150	On page no. 10–14

5. The duration of the examination is 1 hour.
6. There is no negative marking.
7. For each question, indicate your answer by darkening the appropriate oval with an HB pencil in the OMR sheet as shown below:

☐	☐	☒	☐
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8. Answers should be marked on the OMR sheet only.
9. Please ensure that you are marking the answer against the correct question number.
10. Use of laptop and mobile is strictly prohibited during the examination.

LEVEL - I (Classes 4 & 5)

Answer the following questions after carefully reading the instructions.

1. As an environment conscious and responsible citizen, you can contribute towards reducing your carbon footprint, by:
 - a) Walking to school, which is just 500 m from your home
 - b) Leaving windows of the room open for natural air and switching off the AC when not required
 - c) Defrosting the refrigerator at regular intervals
 - d) All of the above
2. Ozone is a gas. Its molecular formula is:
 - a) O
 - b) O₂
 - c) O₃
 - d) O₄
3. _____ molecules in the atmosphere provide us with important protection from the sun's rays. Specifically, these molecules are good at absorbing certain ultraviolet rays that can cause sunburn and skin cancer.
 - a) Ozone
 - b) Oxygen
 - c) Hydrogen
 - d) Nitrogen
4. Deforestation contributes towards build-up of CO₂ released in environment. What does deforestation mean?
 - a) Cutting down of trees
 - b) Planting trees
 - c) Landslides in forest
 - d) All of the above
5. Cyclones, droughts, and coral deaths are a few of the natural disasters caused due to climate change. Coral reefs are found mostly _____.
 - a) under water
 - b) in forests
 - c) on snow clad mountains
 - d) in desert regions
6. Carbon dioxide, methane, and nitrous oxide are gases contributing towards climate change. Concentration of carbon dioxide in the atmosphere can be reduced by _____.
 - a) planting trees
 - b) cutting down trees
 - c) using plastic
 - d) burning fossil fuels
7. Transportation in Japan is highly developed and modern and stands out for its energy efficiency. If, in Japan, you were travelling on a Shinkansen, what mode of transport would you be using?
 - a) Bus Rapid Transit System
 - b) Bullet trains
 - c) Mono rails
 - d) Metro trains
8. Recycling solid waste helps to reduce the pollution caused by improper waste management. There are many benefits to recycling. These benefits include:
 - a) Resource conservation
 - b) Job creation
 - c) Energy conservation
 - d) All of the above
9. Which type of waste can be broken down by microbial activities of fungi and bacteria?
 - a) Biodegradable waste
 - b) Non-biodegradable waste
 - c) Industrial waste
 - d) Chemical waste
10. This site is considered to be one of the tallest structures in Delhi (India) with a height of 65 m (just 8 m less than the height of Qutub Minar). In September 2017, this site collapsed killing two people. A waste-to-energy plant has now been set up at this site. Which is this site?
 - a) Ghazipur dumpsite
 - b) Baddi dumpsite
 - c) Narela-Bawana landfill
 - d) Bandhwari dumpsite
11. Onsite composting is an opportunity to use _____ waste in ways that keeps most of the organic material in its original ecological system and enhances conservation.
 - a) rubber
 - b) food
 - c) plastic
 - d) electronics
12. Recycling is processing of used materials (waste) into new, useful products. This is done to reduce the use of raw materials that would have been utilized in making new products. Through advances in recycling technology, most of the materials can be recycled as we need to _____ as much of our resources as possible.
 - a) conserve
 - b) consume
 - c) dissipate
 - d) exhaust

13. This liquid is vital for all forms of life. It comes down from the clouds as rain or snow and forms streams, lakes, rivers, and seas. Name the liquid.
- Water
 - Lava
 - Nitrogen
 - Gelatin
14. When water freezes it becomes solid ice. What is a massive piece of freshwater ice which has broken off from a glacier or an ice shelf and now floating freely in water called?
- Ice cube
 - Iceberg
 - Ice piece
 - Ice bag
15. Mercury vapour lamps use an electric arc through vapourized mercury to produce light. These lamps are more energy efficient than incandescent and fluorescent lights. What is the colour of light of a mercury vapour lamp?
- Yellow
 - White
 - Red
 - Orange
16. A 100% efficient light bulb is the one that converts all the electricity to light without producing any heat. Which of the following methods is the most economical way of increasing the light output from a lamp?
- Replace the light with a new one
 - Clean the light surface
 - Switch off the bulb
 - None of the above
17. The ultimate source of all energy in the universe is _____.
- fire
 - water
 - wind
 - sun
18. A transboundary river is a river that crosses at least one political border, either within a nation or between nations. From the following, identify a transboundary river crossing India and another country.
- Ganga
 - Kaveri
 - Narmada
 - Yamuna
19. Which of the following is one of the major reasons for great amounts of 'hidden' water loss at home?
- Shower
 - Hosepipe
 - Leaks
 - Running taps
20. _____ is a process that continuously renews Earth's water supply.
- Photosynthesis
 - Evaporation
 - Water cycle
 - Tides
21. Which is the first national park of India?
- Hazaribagh National Park
 - Similipal National Park
 - Dachigam National Park
 - Jim Corbett National Park
22. When is the world Turtle day celebrated?
- 23rd March
 - 23rd April
 - 23rd May
 - 23rd June
23. _____ is any substance intended for preventing, destroying, repelling, or mitigating any pest.
- Pesticide
 - Insecticide
 - Compost
 - None of the above
24. Yoga is a physical, mental, and spiritual practice that originated in India. The International Day of Yoga aims to raise awareness worldwide of the many benefits of practicing yoga, a physical, mental, and spiritual practice. Which of the following day is observed as International Yoga Day?
- 21st June
 - 22nd June
 - 6th June
 - 7th June
25. Anthropogenic actions lead to which of the following types of pollution?
- Air pollution
 - Water pollution
 - Land pollution
 - All of the above
26. What are carbon dioxide, methane, and water vapour known as?
- Saturated gases
 - Greenhouse gases
 - Natural gases
 - Nobel gases
27. Which of the following is an example of 'reuse'?
- Using old clothes for dusting the house
 - Selling newspaper
 - Throwing old books in the dustbin
 - Taking Tetra Pak cartons to school recycling centres

28. When you transform an old product into a new product of better quality and environmental value, you are _____.
- recycling
 - upcycling
 - reducing
 - incinerating
29. Which one of the following resources is renewable?
- Coal
 - Diamond
 - Silver
 - Wind
30. Which of the following is an example of pollution?
- Oil spill in the ocean
 - Burning of fossil fuels
 - Littering trash on the ground
 - All of the above
31. Coal is a naturally forming rock. It was formed millions of years ago from the remains of plants. Coal is mined from Earth, then burnt for energy.
- Which sentence from the above passage describes how people change Earth's surface?
- Coal is a naturally forming rock.
 - It formed millions of years ago from the remains of plants and animals.
 - Coal is mined from Earth, then burnt for energy
 - None of the above
32. What is it called when you protect resources and use them wisely?
- Pollution
 - Irrigation
 - Conservation
 - Crop rotation
33. Ravi thinks that the best way to reduce the amount of garbage his family produces is to burn all of it. In terms of air pollution, why is this not the best way to manage waste?
- Burning garbage release toxins into the air.
 - Burning garbage increases carbon dioxide and black carbon emissions causing global warming.
 - It produces a lot of haze.
 - All of the above
34. What category of resources are fossil fuels such as coal, oil, and natural gas?
- Non-renewable
 - Renewable
 - Preserved
 - Unlimited
35. Degradation and decomposition of plants and animals lead to the formation of _____.
- solar energy
 - fossil fuels
 - permafrost
 - geothermal energy
36. Which of the following problems could be caused by mining?
- Erosion
 - Mudslides
 - Loss of habitat
 - All of the above
37. As a river enters the plains, it twists and turns forming large bends known as meanders. What is the cut-off lake formed by the river known as?
- Oxbow lake
 - Delta
 - Canal
 - Basin
38. The oldest Southern landmass that broke apart from Pangaea was a part of the _____. This included India, Australia, South Africa, and South America as one single landmass.
- Gondwana
 - Rodinia
 - Tethys
 - Angara Land
39. _____ is the Earth's highest mountain.
- Mt Abu
 - Mt Everest
 - Mt Kilimanjaro
 - Mt K2
40. Burning natural gas instead of coal at a power plant results in a reduction of which of the following harmful emissions?
- Mercury
 - Carbon dioxide
 - Nitrogen oxides
 - All of the above
41. Which of the following statement holds true for natural gas?
- Natural gas produces less air pollution
 - Natural gas produces lower greenhouse gas emissions
 - Natural gas now costs less
 - All of the above

42. This once commonly found bird in Indian cities is now under considerable amount of stress. In order to draw concern towards its condition, as a part of Wildlife Week celebrations in 2012, the Chief Minister of Delhi announced this bird as the state bird of Delhi. Identify the bird.
- House Sparrow
 - Peacock
 - Duck
 - Crow
43. This UNESCO world heritage site is also one of the hotspots of biological diversity in India. It consists of a mountain range along the western coast of India. It is sometimes called the Great Escarpment of India. Name the hotspot.
- Himalayas
 - Eastern Ghats
 - Western Ghats
 - Nilgiris
44. River _____ flows through the Indian states of Madhya Pradesh, Maharashtra, and Gujarat. This river and the Tapi River flows almost parallel to each other but empty themselves in opposite directions.
- Godavari
 - Krishna
 - Mahi
 - Narmada
45. Which of the following is not the official language of United Nations Organization?
- Spanish
 - French
 - Chinese
 - German
46. Which Kenyan environmental and political activist founded the Green Belt Movement, and dedicated her life to planting of trees, environmental conservation, and women's rights? She is the first African woman to win a Nobel Prize.
- Wangari Muta Maathai
 - Ellen Johnson-Sirleaf
 - Laure Olga Gondjout
 - Oprah Winfrey
47. There are mainly three kinds of coral reefs: barrier reef, fringing reef, and _____.
- atolls
 - polyps
 - biotic reef
 - bioherm
48. Find out the correct statement establishing the differences between the African and the Asian elephants.
- The Asian elephants are much smaller in size and their ears are straight at the bottom, unlike the fan-shape ears of the African species.
 - The Asian elephant has four toes on the hind foot and five on the forefoot, while the African elephant has three on the hind foot and five on the forefoot.
 - Only some Asian male elephants have tusks. All African elephants, including females, have tusks.
 - All of the above
49. Which species of animals of Africa display human-like behaviour and emotions, such as laughter and sadness and can even make their own tools to help them survive in the forest, sharing 98.3% of their genetic code with humans?
- Lemurs
 - Lorises
 - Langurs
 - Gorillas
50. Which of the following light bulbs is the most energy efficient to use?
- Incandescent light bulb
 - Compact fluorescent light bulb
 - Halogen bulbs
 - Light emitting diode (LED) bulbs

LEVEL - II (Classes 6, 7 & 8)

Answer the following questions after carefully reading the instructions.

51. Vitamin B-12 is an important vitamin, needed for nerve tissue health, brain function, and production of red blood cells. Deficiency of this vitamin causes:
- Anaemia
 - Night blindness
 - Beri Beri
 - Biotin
52. In the absence of supply of primary nutrients to plants, their health, yield, and growth are affected. Which of the following is a primary nutrient?
- Sulphur
 - Cobalt
 - Sodium
 - Potassium
53. Antarctica at the South Pole has about 90% of the world's ice and is extremely vulnerable to impact of climate change. Of the animals found here, which is endangered due to climatic changes affecting this fragile zone?
- Penguins
 - Whales
 - Seals
 - Southern Fulmar
54. Most of the minerals in Earth's crust are found in which layer?
- Crust
 - Mantel
 - Inner crust
 - Core
55. The movement of air from a high pressure area to a low pressure area constitutes a wind, which is further classified into three types, i.e., seasonal winds, permanent winds, and local winds. Winds that blow throughout the year are called permanent winds like the trade winds, easterlies, and westerlies. What are winds during cyclones known as?
- Seasonal winds
 - Permanent winds
 - Local winds
 - None of the above
56. Tropical cyclones are like giant engines that use warm, moist air as fuel. The warm, moist air over the ocean rises upward from near the surface and less air is left near the surface. Another way to say the same thing is that the warm air rises, causing an area of _____ below causing cyclones.
- low air pressure
 - high air pressure
 - neutral air pressure
 - same air pressure
57. Volcanic eruptions cause short-term climate changes and contribute to natural climate variability. Large-scale volcanic activity may last only a few days, but the massive outpouring of gases and ash can influence climate patterns for years. Which of the following is an active volcano?
- Kilauea (Hawaii)
 - Mt. Vesuvius (Italy)
 - Krakatoa (Indonesia)
 - Mt. St. Helens (USA)
58. Scientists have discovered a new type of plastic pollution -- a layer of plastic encrusted onto ocean rocks. This was first observed as patches on the beach rocks in Portuguese island of Madeira in 2016. What are these called?
- Plasticrusts
 - Plastic hills
 - Plastic spill
 - Plastic zipper
59. Name the oldest dump in India covering 326-acre, found in Mumbai?
- Deonar dumpsite
 - Ghazipur dumpsite
 - Dhapa dumpsite
 - Okhla dumpsite
60. E-waste is generated from which of the following sources?
- Discarded, surplus, obsolete, broken, electrical or electronic devices
 - Solid waste generated due to domestic activities
 - Chemical fertilizers and pesticides to protect crops from insects and pests
 - None of the above
61. Since the industrial revolution, the rise in the number of industries has significantly contributed to waste production. What are the types of industrial waste?
- Electronics, metals, paints, ash, radioactive wastes
 - Leaves, flowers, and other parts of plants
 - Used bandages, syringes
 - None of the above
62. E-waste is one of the fastest-growing waste streams in the world. According to the Global E-Waste Monitor 2017, India generated about 2 million tonnes (MT) of e-waste that year and ranked fifth among e-waste producing countries, after the US, China, Japan and Germany. Which of the following is the main cause for this?
- Increasing market penetration in developing countries
 - Replacement market in developed countries
 - High obsolescence rate
 - All of the above

63. Vermicompost is the end product of the composting process using various species of worms, such as red wigglers, white worms, and other earthworms, to create a mixture of decomposed vegetable or food waste, bedding materials. Which product amongst the following options can be composted?
- Food scraps
 - Paper
 - Yard trimmings such as grass and plants
 - All of the above
64. Photovoltaic is a method for generating electric power by using solar cells to convert energy from the sun into a flow of electrons by the photovoltaic effect. It converts which of the following energy to electricity?
- Light
 - Sound
 - Wind
 - Nuclear
65. The electricity bill is normally issued every month by the electricity providers. It shows number of units consumed in a month by the consumer. The unit indicates:
- Current
 - Energy consumed
 - Voltage
 - Frequency
66. This rating is a measure of energy efficiency of an appliance. It is a five-point scale where higher the rating lower is the energy consumption and hence better savings. This rating is provided by Bureau of Energy Efficiency, Government of India on electrical home appliances like refrigerators, air conditioners, ceiling fans, etc. Name the rating.
- BIS
 - ISI
 - Power
 - Star labelling
67. Coliform bacteria in drinking water indicate the presence of disease-causing organisms (pathogens). The water containing high coliform count is contaminated with _____.
- human wastes
 - phosphorus
 - industrial effluents
 - hydrocarbon
68. _____ is built across the Mahanadi River in Odisha in India. This is one of the first major multipurpose river valley projects started after India's independence.
- Hirakund Dam
 - Deras Dam
 - Indiravati Dam
 - Mandira Dam
69. Greywater or sullage is the wastewater without faecal contamination. It is reused by some households to meet their water demands. Greywater should never be used in which of the following activities?
- Watering lawns
 - Mopping the floor
 - Washing the cars
 - Washing edible vegetables and fruits
70. Electric fuse is a device that protects electrical equipment in case of short circuit by breaking the circuit. Fuse wire which protects against short circuit is made up of:
- Plastic with low melting point
 - Metal with low melting point
 - Plastic with high melting point
 - Metal with high melting point
71. Energy Conservation Act, 2001 provides for the legal framework, institutional arrangement, and a regulatory mechanism at the Central and State levels to embark upon energy efficiency drive in India. This act was amended in which year?
- 2002
 - 2005
 - 2010
 - 2017
72. Which of the following statements best defines 'producers'?
- The green plants in the ecosystem
 - Animals that depend on plants (directly or indirectly) for their food needs
 - Animals that eat other animals which in turn eat the plants
 - None of the above
73. What is the objective of biosphere reserve?
- To conserve diversity of plants, animals, and micro-organisms
 - To promote research on ecological conservation and other environmental aspects
 - To provide facilities for education, awareness, and training
 - All of the above

74. RDB is a public document created by the IUCN for recording the conservation status of species as well as some local subspecies which are present in a particular region. What is RDB?
- Red Data Book
 - Red Diversity Book
 - Red Depictions Book
 - Red Demarcations Book
75. Which amongst the following sentences best defines 'species diversity'?
- Variety of different species in a given area
 - Variation at the level of individual genes
 - Variations in habitats available for organisms in the ecosystem
 - None of the above
76. Human blood is a highly specialized _____ that delivers necessary substances such as nutrients and oxygen to the cells and also transports away metabolic waste products.
- organelle
 - tissue
 - organic compound
 - inorganic compound
77. Retinal is part of the light-sensitive pigment in the retina of the eye. Oxidation of retinol generates retinal, and when this is linked to a protein called opsin, it forms rhodopsin, a light-sensitive pigment. Rhodopsin is the pigment responsible for night-vision and allows you to see in black and white. Which vitamin is needed for the formation of a light-sensitive pigment in the retina?
- Vitamin A
 - Vitamin C
 - Vitamin D
 - B complex
78. Human body weight refers to a person's mass or weight. Body weight is measured in kilograms, a measure of mass, throughout the world. How much does total oxygen account for a human body mass?
- 65%
 - 18%
 - 10%
 - 3%
79. An airborne disease is caused by pathogens that can be transmitted through the air. Which of the following is not an airborne disease?
- Meningitis
 - Chicken Pox
 - Tuberculosis
 - AIDS
80. _____ is a bi-molecular consisting of carbon, hydrogen, and oxygen atoms, usually with a hydrogen-oxygen atom ratio of 2:1. It is an energy-giving food, for example, sugars, starches, and fibres found in fruits, grains, vegetables, and milk products.
- Carbohydrate
 - Protein
 - Amino acid
 - None of the above
81. WBCs (also called leukocytes or leucocytes) are cells of the immune system that are involved in protecting the body against infectious diseases and foreign invaders. What is the colour of WBCs?
- Yellow
 - Colourless
 - Red
 - Blue
82. Water boils when molecules are able to overcome the vapour pressure of the surrounding air to move from the liquid phase to the gas phase. If we add salt to pure water, its boiling point will _____.
- increase
 - decrease
 - remain same
 - None of the above
83. _____ are giant clouds of dust and gas in space. These are formed from the gas and dust thrown out by the explosion of a dying star, such as a supernova. These are also the site of origin of new stars, and are known as 'star nurseries.'
- Asteroids
 - Comets
 - Planets
 - Nebulae
84. Washing soda is used to remove stubborn stains from laundry and is an essential component in most homemade laundry detergents for powder, liquid, or single-pod formulas. Washing soda is a common name for which chemical compound?
- Sodium carbonate
 - Calcium bicarbonate
 - Sodium bicarbonate
 - Calcium carbonate

85. What is the study of trees, known as?
- Dendrology
 - Dermatology
 - Hematology
 - Pedology
86. Study of animal behaviour is called ethology. What specific behaviour patterns in animals do ethologists study?
- They try to understand perception, coordination, orientation, learning, and memory in animals
 - They try to understand what triggers instinctive behaviour in animals
 - They try to understand the evolutionary behavioural trends
 - All of the above
87. The Earth's oceans' temperatures are getting warmer too—which means that tropical storms can pick up more energy. So, global warming could turn, say, a category 3 storm into a more dangerous category 4 storm. These storms may rise to:
- Cyclones
 - Earthquake
 - Tsunami
 - None of the above
88. Earth's rising temperatures are fuelling longer and hotter heat waves, more frequent droughts, heavier rainfall, and more powerful hurricanes. What is the name of the cyclone that hit the Bay of Bengal in May 2019?
- Cyclone Fani
 - Cyclone Phailin
 - Cyclone Bhola
 - Cyclone Jal
89. Greenland is just one island. But possible melting of its ice sheet has the potential to transform the entire planet. The Greenland ice sheet has existed for 2.4 million years and is 2.1 miles (3.4 kilometres) thick at its deepest point. What is causing the meltdown of the Greenland ice caps?
- Ozone-layer depletion
 - Global warming
 - Greenhouse effect
 - All of the above
90. Which of the following greenhouse gases is most abundant in the atmosphere?
- Carbon dioxide
 - Methane
 - Nitrous oxide
 - Water vapour
91. Name the natural process through which trees accept CO_2 and release O_2 .
- Photosynthesis
 - Oxidation
 - Radiation
 - None of the above
92. In order to promote successes of urbanization, or address specific challenges resulting from urbanization, 'World Cities Day' is celebrated every year. What was the sub-theme for 2018 which was to highlight that cities need support to become resilient and develop their capacity to absorb the impact of hazards?
- Innovative Governance, Open Cities
 - Building Sustainable and Resilient Cities
 - Designed to live together
 - Inclusive Cities, Shared Development
93. Nuclear waste or radioactive waste is isolated for a long period of time due to which of the following reasons?
- It can be recycled and put to further use for making nuclear weapons
 - The components have decayed and no longer pose a threat to human health due to radiation exposure
 - To reduce the expenditure incurred in treatment of nuclear waste
 - None of the above
94. The City Beautiful Movement was a reform philosophy of American urban-planning that flourished during the 1890s and 1900s with the intent of introducing beautification and monumental grandeur in cities not only for its own sake, but also to create moral and civic virtue amongst urban populations. Who conceptualized it?
- George Edgar Merrick
 - Daniel Burnham
 - Frederick Law Olmsted, Jr.
 - Cass Gilbert
95. It is believed that over 800 aftershocks of magnitude 4.5 or greater have occurred over the last few years. An aftershock is a smaller earthquake that occurs after a previous large earthquake, in the same area of the main shock. If an aftershock is larger than the main shock, the aftershock is redesignated as the main shock and the original main shock is redesignated. What is it redesignated as?
- Before shock
 - Foreshock
 - Earlier shock
 - Antecedent shock
96. Bricks, pipes, iron rods, sand, grit, lumber, asbestos, etc., comprises which of the following types of waste?
- Construction and demolition waste
 - Industrial waste
 - Commercial waste
 - Agricultural waste

97. This UN agency provides leadership to cities for promoting sustainable energy production and energy use by encouraging energy efficiency, alternative energy, mass transit, and public awareness. This agency also encourages partnerships to promote the climate neutral urban environment by inspiring, informing, and enabling local authorities and people to improve their quality of life without compromising that of future generations. Name the agency.
- a) World Health Organisation
 - b) United Nations Human Settlements Programme
 - c) The United Nations Children's Fund
 - d) None of the above
98. Reykjavik, Iceland's capital city in 1930 began using _____ energy for district heating and now has the world's largest district heating system. Once heavily polluted, Reykjavik is now one of the world's cleanest cities.
- a) solar
 - b) hydro
 - c) geothermal
 - d) nuclear
99. This city is situated beside Lake Ontario and uses the deep-lake water cooling system to cool not only the office buildings near the waterfront but also around seven thousand homes in the surrounding area. Name the city.
- a) Toronto
 - b) London
 - c) Frankfurt
 - d) Tokyo
100. Kola Superdeep Borehole is the deepest borehole in the world. This was the result of scientific drilling project to find out more about the Earth's crust and drilling began on May 24, 1970. It was later stopped in 1992 as drilling deeper was deemed unfeasible as it became too hot at the bottom of the hole for drilling to continue. In which country is this borehole located?
- a) Russia
 - b) Germany
 - c) The USA
 - d) China

LEVEL - III (Classes 9 & 10)

Answer the following questions after carefully reading the instructions.

101. *Lantana*, *Parthenium*, and *Eichhornia* belong to a category of species whose introduction and/or spread outside their natural past or present distribution threatens biological diversity. What are these species known as?
- Invasive alien species
 - Endangered species
 - Parasitic species
 - Rare species
102. Which of the following are biodiversity hotspots in India?
- Himalaya: Includes the entire Indian Himalayan region (and that falling in Pakistan, Tibet, Nepal, Bhutan, China, and Myanmar)
 - Indo-Burma: Includes entire North-eastern India (except Assam and Andaman group of Islands) and Myanmar, Thailand, Vietnam, Laos, Cambodia, and southern China
 - Sundaland: Includes Nicobar group of Islands (and Indonesia, Malaysia, Singapore, Brunei, Philippines)
 - All of the above
103. Which of the following types of forests can be found in India?
- Moist tropical forests
 - Dry tropical forests
 - Montane temperate forests
 - All of the above
104. In India, where can mangroves be found?
- West Bengal
 - Gujarat
 - Andaman & Nicobar Islands
 - All of the above
105. The National Annual Rural Sanitation Survey (NARSS) 2017–18, was conducted by an Independent Verification Agency (IVA) under the support project of *Swachh Bharat Mission Gramin* (SBM-G). NARSS 2017–18 was conducted by which of the following independent body/organization?
- Asian Development Bank
 - World Bank
 - UNICEF
 - WHO
106. As global temperatures continue to rise, it is being noticed that a lot still needs to be done since the window of opportunity is closing fast. The United Nations organizes a series of critical negotiations on how to address the problem collectively and urgently, during a two-week climate change conference, known as 'COP' held annually. Where did COP24 – the UN talk on climate change in the year 2018 take place?
- Germany
 - Philippines
 - Poland
 - Fuji
107. International Day of the Girl Child is observed on 11th October every year. This day aims to highlight and address the needs and challenges girls face, while promoting girl's empowerment and fulfilment of their human rights. What was the theme of International Day of the Girl Child 2018?
- With Her: A Skilled Girl Force
 - Empower Girls Emergency Response and Resilience Planning
 - Progress = Goals Progress
 - None of the above
108. In India, Golden Revolution is associated with overall horticulture, honey, and fruit production. In India, the period between 1991 and 2003 is termed as Golden Revolution. Who is the father of Golden Revolution?
- Nirpakh Tutej
 - Indira Gandhi
 - Dr Arun Krishnan
 - M S Swaminathan
109. The Global Solar Council (GSC) is an international non-profit association of the national, regional, and international associations in solar energy and the world's leading corporations. The GSC headquartered in Washington DC, USA, came into being following the COP21. The GSC is an International Coalition of more than 30 nations, utilizing maximum solar energy which has decided to harness the renewable energy for the greater good. Who was the first Indian to head the GSC?
- Kirti Ranjan
 - Mayur A Seth
 - Naveen Kumar
 - Pranav R Mehta

110. The 6th 'Women of India Organic Festival 2019' was hosted by the Ministry of Women and Child Development from 12th to 14th January to celebrate and promote women farmers and entrepreneurs in the organic sector from the remotest parts of India. The purpose of the festival was to encourage Indian women entrepreneurs and farmers to connect with more buyers and thus, empower them through financial inclusion, while promoting organic culture in India. Which Indian city/ UT was chosen as the venue of this festival?
- New Delhi
 - Bhopal
 - Chandigarh
 - Lucknow
111. Uri Dam is a 480-MW hydroelectric power station in Baramulla district of the Jammu and Kashmir region administered by India. It is located very near to the Line of Control, the de facto border between India and Pakistan. Uri dam is constructed on which of the following rivers?
- Jhelum
 - Chenab
 - Beas
 - Sutlej
112. Way up high in the Earth's atmosphere, called the stratosphere, there is a fairly high concentration of ozone molecules that are formed when the sun hits oxygen molecules. This part of the atmosphere is called the ozone layer. Ozone-layer depletion is a result of:
- Global warming
 - Chlorofluorocarbons (CFCs)
 - Halons
 - All of the above
113. This is the only country without a desert in the Middle East and has traditionally been an important commercial hub for the region. Name the country which is also known as the Pearl of the Middle East.
- Qatar
 - Syria
 - Lebanon
 - Israel
114. The French Government has launched a new tax regime on the US technology giants such as Google, Apple, Facebook, and Amazon, to ensure that such global giants pay a fair share of taxes on their massive business operations in Europe which affect the local resources of the country. Calling it the 'tax of 21st century', what is the term given to such a tax?
- GST
 - GAFA
 - Environmental tax
 - GATA
115. Name an international coalition of countries which are solar resource rich located between the Tropic of Cancer and the Tropic of Capricorn to address their special energy needs and to provide a platform to collaborate on addressing the identified gaps through a common, agreed approach.
- International Renewable Energy Agency (IRENA)
 - Renewable Energy and Energy Efficiency Partnership (REEEP)
 - International Energy Agency (IEA)
 - International Solar Alliance (ISA)
116. _____ cycling is an important control on ecosystem production, through which this mineral nutrient is cycled back and forth between plants, animals, microbes, and the soil.
- Nitrogen
 - Calcium
 - Potassium
 - Manganese
117. Which vehicle releases the maximum carbon emission?
- Petrol car without a catalyst
 - Petrol car with a catalyst
 - Electronic car
 - Hybrid car
118. A device with fibrous and porous materials to remove solid particulates and bacteria from the air is technically known as which of the following?
- Air cleanser
 - Air quality enhancer
 - Air purifier
 - Pure air device
119. The 301–500 (hazardous) AQI (air quality index) range is represented by which colour?
- Yellow
 - Red
 - Purple
 - Maroon
120. Cloning is a process of producing genetically identical individuals of an organism either naturally or artificially. Cloning has been a part of medical science since a long time. Which out of the following was the first ever cloned animal?
- Dolly
 - Mira
 - Crap
 - Tetra

121. With an increase in purchasing power, human populations are becoming more and more affluent. Conspicuous consumption is rising and affecting the quality and quantity of waste we generate. Which of the following country has the largest area covered with landfills?
- China
 - India
 - The USA
 - Mexico
122. Out of the following options, which is the first mammal (rodent) species to become extinct due to climate change?
- Thomomys* spp. (Pocket gopher)
 - Vulpes macrotis merriam* (Kit fox)
 - Podogymnura truei* (Pinyon mouse)
 - Melomys rubicola* (Bramble Cay mosaic-tailed rat)
123. This term is used to describe brain inflammation. Its symptoms include fever, confusion, memory loss, psychosis, and seizures. Recently in eastern part of India, hundreds of children lost their lives because of this syndrome, which ironically the locals thought was caused due to consuming an infected fruit. Name the disease.
- Encephalitis
 - Dysentery
 - Typhoid
 - Jaundice
124. Rally for rivers is a movement to save India's lifelines. It was launched on September 3, 2017 to revitalize India's depleting rivers. Who started the river rally?
- Guru Nithyananda
 - Sadhguru Jaggi Vasudeva
 - Swami Ramdas
 - Gurumayi Chidvilasananda
125. Giardiasis is a disease caused by a parasite named *Giardia lamblia* found in animal and human faeces. This parasite also thrives in contaminated food, water, and soil, and can survive outside a host for long periods of time. Which part of the body is affected by it?
- Stomach
 - Kidney
 - Small intestine
 - Large intestine
126. Dioxins are a group of chemically-related compounds that are found in the environment. They are commonly known as POPs. They are highly toxic and can cause reproductive and developmental problems. What is the full form of POP?
- Persistent Organic Pollutants
 - Persistent Organic Pesticides
 - Permanent Organic Pollutants
 - None of the above
127. Name the process that uses materials/waste to make new products. This is a very important process in waste reduction. Identify this process which is also the third component of the waste hierarchy.
- Reuse
 - Reduce
 - Recycle
 - Refuse
128. Out of the following statements, tick the appropriate one.
- Composting is a form of recycling.
 - Composting leads to lot of waste generation.
 - Composting is very expensive and highly unaffordable.
 - Composting leads to generation of highly toxic wastes.
129. Microbes used for composting are classified based on the temperatures at which they are active. The set of microbes that can grow at optimum temperatures of 50°C to a maximum of 80°C are 'heat loving' and they do not multiply at room temperature. They are widely distributed in hot springs, geothermal soils, and man-made environments such as garden compost piles where they break down vegetal material. What is this group of organisms known as?
- Psychrophiles
 - Mesophiles
 - Thermophiles
 - Hypophiles
130. _____ is a process used to clean up soils contaminated with petroleum hydrocarbons and other hazardous compounds. In this process microbes degrade contaminants and detoxify the soil.
- Bioremediation
 - Fragmentation
 - Innoculation
 - Gasification
131. _____ is a method of solid waste management by burning of waste material under controlled conditions. The process products comprise syngas, charcoal, and liquid fuel. What is the name of the process?
- Incineration
 - Pyrolysis
 - Gasification
 - Biomethanation
132. Combustion of coal leaves behind a residue in higher proportion which is a major cause of risk to human health and the environment. Identify this residue.
- Mud
 - Fly ash
 - Coke
 - None of the above

133. AQI is used to measure the pollution present in an area's air. What does AQI stand for?
- Air Quality Index
 - Air Quantifying Index
 - Atmospheric Quality Index
 - Air Humidity Index
134. What do you understand by 'Cold Start Emissions'?
- Production of lesser emissions on a cold day
 - Production of more emissions on a cold day
 - Engine emissions on a cold day
 - None of the above
135. Soil erosion can be prevented by which of the following options?
- Deforestation
 - Afforestation
 - Overgrazing
 - Use of fertilizers
136. Amongst the following, which type of cancer is caused by the presence of benzene vapours in the air?
- Leukaemia
 - CPOD
 - Brain cancer
 - DCIS
137. Photosynthesis is the process used by plants to harness energy from sunlight and turn it into chemical energy. What are the necessary components for photosynthesis?
- Water, air, sunlight
 - Humus, water, sunlight, air
 - Water, CO_2 , humus
 - Water, CO_2 , sunlight, chlorophyll
138. What is the source for producing geothermal energy?
- Heat from sun
 - Heat from inside the Earth
 - Heat from fission
 - Natural gas
139. Which airport in the world is powered by only solar energy?
- John F Kennedy International Airport, USA
 - Al Maktoum International Airport, UAE
 - Heathrow Airport, UK
 - Cochin International Airport, India
140. Which source of energy is not a renewable source of energy?
- Tidal energy
 - Solar energy
 - Biomass energy
 - Fossil fuels
141. During rainfall what is the dry area on the leeward side of mountainous area called?
- Weathering
 - Rainwater harvesting
 - Rain shadow
 - Silhouette
142. Name a breakthrough technology developed in India in 2018 by the Council of Scientific and Industrial Research and the Indian Institute of Toxicology Research (CSIR-IITR) which will help treat water and eliminate all disease-causing pathogens such as virus, bacteria, etc., at a cost of just 2 Paise/Litre.
- Oneer
 - Water Filtering by Nanotechnology
 - Photocatalytic Water Purification Technology
 - Lifestraw
143. What is the flow of water from high tides to low tides in oceans called?
- Flood tides
 - Ebb tides
 - Neap tides
 - None of the above
144. What is the term given to deliberate replenishment of groundwater by means of spreading basins, recharge wells, irrigation, or other means to induce infiltration of surface water?
- Artificial recharge
 - Aquifer reinjection
 - All of the above
 - None of the above
145. In a power plant, magnets and coils of wire are used inside which equipment to produce electricity?
- Generator
 - Transformer
 - Turbine
 - Reactor
146. What is the chemical name for natural gas?
- Helium
 - Methane
 - Nitrogen
 - Freon
147. What is the place where a river meets a lake, an ocean, or the sea called?
- Estuary
 - Basin
 - Confluence
 - Ford

148. Name the only continent that does not have glaciers?

- a) Africa
- b) Australia
- c) South America
- d) None of the above

149. What was the theme for World Environment day, 2019?

- a) Beat plastic pollution
- b) Connecting people to nature
- c) Air pollution
- d) Go wild for life

150. Most of the oil that we use is imported into our country from other nations. The oil is carried in huge sea-going tankers. Sometimes, these tankers get damaged and the oil leaks into the oceans and seas. What is such an accidental discharge of oil into waterbodies called?

- a) Water pollution
- b) Oil leak
- c) Oil spill
- d) Tanker leak

<http://scholasticworld.in>

Dear Participant,

Congratulations! You are now a part of TERI's GREEN Olympiad family. It is our endeavour to stay connected with you, and help you embark upon a journey of Environment Awareness. Participation in this GREEN Olympiad is a first step in this direction. There are several other opportunities that will open up for you from now onwards.

As you are aware, The Energy and Resources Institute (TERI) is one of the world's eminent think tanks and research institution in the fields of energy, climate change and sustainability. We continuously endeavour to ensure that our knowledge and research are shared with varied audiences. Engagement with students across the country leading to opportunities of innovative learning about environmental issues is a key driver behind TERI's several initiatives related to Education for Sustainable Development (ESD).

GREEN Olympiad is an innovative and value-driven environment education project being conducted by TERI for school students annually since 1999. The project has a dedicated website, www.teriin.org/olympiad that highlights features and milestones of the project. You can become an active member of the programme by sending your contributions in the form of write-ups, poetry, slogans, paintings etc. that will feature under the Students' Corner. You can also participate in a discussion forum and initiate a dialogue with other students and teachers from different states and regions across India and abroad. The purpose is to stay connected with you on issues of sustainability concern, throughout the year.

So, hurry. Pen down your thoughts and send these across to:

GREEN Olympiad Secretariat

Environment Education and Awareness Area

The Energy and Resources Institute (TERI)

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ENVIRONMENTALLY IMPORTANT DAYS

February 2	World Wetlands Day
February 27	International Polar Bear Day
February 28	National Science Day
March 3	World Wildlife Day
March 14	International Day of Action for Rivers
March 20	World Sparrow Day
March 21	World Forestry Day, World Planting Day, World Wood Day
March 22	World Water and Sanitation Day
March 23	World Meteorological Day, World Resources Day
April 7	World Health Day
April 10	World Atmosphere Day
April 18	World Heritage Day
April 22	World Earth Day
May 3	International Energy Day
May 8	World Migratory Bird Day
May 11	National Technology Day
May 14	Endemic Bird Day
May 22	World Biodiversity Day
May 23	World Turtle Day
June 5	World Environment Day
June 8	World Ocean Day
June 9	Coral Triangle Day
June 15	Global Wind Day
June 17	World Day to Combat Desertification and Drought
July 1– July 7	Van Mahotsav
July 3	World Seabird Day
July 11	World Population Day
July 26	International Mangrove Day
July 29	International Tiger Day
August 10	World Lion Day
August 12	World Elephant Day
August 22	Honey Bee Day
September 8	World Cleanup Day
September 16	World Ozone Day
September 18	World Water Monitoring Day
September 21	Zero Emissions Day
September 26	World Environmental Health Day
October 1– Oct 7	Wildlife Week
October 3	World Nature Day, World Habitat Day
October 4	World Animal Day
October 6	World Wildlife Day
October 24	International Day of Climate Action
November 6	International Day for Preventing Exploitation of the Environment in War and Armed Conflict
November 12	World Birds Day
November 14	World Energy Conservation Day
December 5	World Soil Day
December 11	International Mountain Day
December 14	National Energy Conservation Day

ENVIRONMENT EDUCATION AND AWARENESS, TERI

Introduction

The Environment Education and Awareness (EEA) Area was established with the motive of educating young people on environmental issues in relation to the existing social structures, cultural norms, economic realities, and global trends of the present times. The area has been working over a decade in empowering students, teachers, principals, school administrators, parents, grade-IV employees, college and university students, lecturers, corporate employees, the Education for Sustainable Development (ESD) practitioners, government officers as well as members of different educational boards and networks.

Recognition and Awards

- The Green School Project, a joint initiative of Tata Steel and TERI was presented in India Pavilion at COP24 in Katowice, Poland in December 2018.
- Project FLOW was conferred with Pad Man Award 2018, constituted by Yuva Unstoppable.
- Recognized as Regional Centre of Expertise (RCE), Delhi (in 2008), Mumbai (in 2011) and Goa (in 2014) for the promotion of Education for Sustainable Development (ESD) by the United Nations University (UNU), Tokyo, Japan.
- Recipient of 'The Manthan Award (South Asia)' in 2011 issued jointly by the Ministry of Information and Technology, Government of India and Digital Empowerment Foundation for the project 'Climate EduXchange'.
- Recipient of 'The Wenhui Award' for Educational Innovation in 2012, from UNESCO - APEID and the National Commission of the People's Republic of China for Project SEARCH.
- UNESCO's Key Partner for the Global Action Programme (GAP) on Education for Sustainable Development (ESD) for the Priority Action Area 4 on empowering and mobilizing youth.
- Member of the International Expert Networking Group on Education for Sustainable Development (ESD) called 'ESD-Expert Net' led by Engagement Global – Service für Entwicklungsinitiativen (Service for Development Initiatives), Germany.
- Recipient of 'Project Award' for BEACON from the Wuppertal Institute for Climate, Environment, and Energy (Germany) in 2005.

Impacts

Since 2002, EEA Area has touched the lives of over 10 million people. The impacts of our short-and long-term projects are as follows:

- School programmes have broadened the horizon of students in terms of their relationship with the environment and society.
- Students in selected locations (both schools and colleges) have honed leadership qualities by taking up the challenges within their schools and communities.
- TERI's well-designed methodology on the ESD covers the spread of locations and penetrates deep into the memories of students.
- The EEA Area at TERI has always strived for long-term partnerships with our clients. Projects such as Green Olympiad, Climate EduXchange, BEACON, SEARCH, 'E' for Energy Efficiency, Hamari Pathshala, From Hope to Action, LEADearthSHIP, FLOW (Facilitating Learning on WASH), The GREEN School project are a few examples of the cycles.



GREEN Olympiad: India's first Environment Olympiad for schools

The Energy and Resources Institute (TERI) is actively engaged in a number of research and awareness-generation activities in the fields of environment and sustainable development. As an institute, TERI has also dedicated itself to the task of developing informed citizens by targeting students, as they are important stakeholders, holding the key to future decision-making processes.

Since 1999, TERI has been conducting this environment examination to build awareness amongst students. GREEN Olympiad is held both in Hindi and English, and is open for the students of Classes/Grades 4 to 10.

For more details, please contact
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The year 2019 marks the 20th year of the project, "GREEN Olympiad". TERI acknowledges all partners and supporters for their association with the project.

Key Associates



UNESCO Global Action Programme on
Education for Sustainable Development



Radio Partner

