

# SRIRAM'S IAS



## Civil Services Preliminary Exam. 2014

*(ENVIRONMENTAL ECOLOGY, BIODIVERSITY AND CLIMATE CHANGE)*

### Objective Type Classroom Examination

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**Total No of Qs: 100****Time: 1 Hour**

1. **Find out the correct sentence about manure**
  - (i) Manure contains large quantities of organic matter and small quantities of nutrients.
  - (ii) It increases the water holding capacity of sandy soil.
  - (iii) It helps in draining out of excess of water from clayey soil.
  - (iv) Its excessive use pollutes environment because it is made of animal excretory waste.
  - (a) (i) and (iii)
  - (b) (i) and (ii)
  - (c) (ii) and (iii)
  - (d) (iii) and (iv)
2. **The process of nitrogen-fixation by bacteria does not take place in the presence of**
  - (a) molecular form of hydrogen
  - (b) elemental form of oxygen
  - (c) water
  - (d) elemental form of nitrogen
3. **Among the given options, which one is NOT correct for the use of large amount of fertilisers and pesticides?**
  - (a) They are eco-friendly
  - (b) They turn the fields barren after some time
  - (c) They adversely affect the useful component from the soil
  - (d) They destroy the soil fertility
4. **The nitrogen molecules present in air can be converted into nitrates and nitrites by**
  - (a) a biological process of nitrogen fixing bacteria present in soil
  - (b) a biological process of carbon fixing factor present in soil
  - (c) any of the industries manufacturing nitrogenous compounds
  - (d) the plants used as cereal crops in field
5. **One of the following processes is not a step involved in the water-cycle operating in nature**
  - (a) evaporation
  - (b) transpiration
  - (c) precipitation
  - (d) photosynthesis
6. **When we breathe in air, nitrogen also goes inside along with oxygen. What is the fate of this nitrogen?**
  - (a) It moves along with oxygen into the cells
  - (b) It comes out with the  $\text{CO}_2$  during exhalation
  - (c) It is absorbed only by the nasal cells
  - (d) Nitrogen concentration is already more in the cells so it is not at all absorbed.
7. **Top-soil contains the following**
  - (a) Humus and living organisms only
  - (b) Humus and soil particles only
  - (c) Humus, living organisms and plants
  - (d) Humus, living organisms and soil particles.

**8. Choose the correct sequences**

- (a)  $\text{CO}_2$  in atmosphere  $\rightarrow$  decomposers  $\rightarrow$  organic carbon in animals  $\rightarrow$  organic carbon in plants
- (b)  $\text{CO}_2$  in atmosphere  $\rightarrow$  organic carbon in plants  $\rightarrow$  organic carbon in animals  $\rightarrow$  inorganic carbon in soil
- (c) Inorganic carbonates in water  $\rightarrow$  organic carbon in plants  $\rightarrow$  organic carbon in animals  $\rightarrow$  scavengers
- (d) Organic carbon in animals  $\rightarrow$  decomposers  $\rightarrow$   $\text{CO}_2$  in atmosphere  $\rightarrow$  organic carbon in plants

**9. Marked temperature changes in aquatic environment can affect**

- (a) breeding of animals
- (b) more growth of aquatic plants
- (c) process of digestion in animals
- (d) Availability of nutrients.

**10. Choose the forms in which most plants absorb nitrogen**

- (i) Proteins
  - (ii) Nitrates and Nitrites
  - (iii) Urea
  - (iv) Atmospheric nitrogen
- (a) (i) and (ii)
  - (b) (ii) and (iii)
  - (c) (iii) and (iv)
  - (d) (i) and (iv)

**11. Accumulation of non-biodegradable pesticides in the food chain in increasing amount at each higher trophic level is known as**

- (a) eutrophication
- (b) pollution
- (c) biomagnification
- (d) accumulation

**12. What will happen if deer is missing in the food chain given below?**

**Grass  $\rightarrow$  Deer  $\rightarrow$  Tiger**

- (a) The population of tiger increases
- (b) The population of grass decreases
- (c) Tiger will start eating grass
- (d) The population of tiger decreases and the population of grass increases

**13. The pH of water sample collected from a river was found to be acidic in the range of 3.5 – 4.5, on the banks of the river were several factories that were discharging effluents into the river. The effluents of which one of the following factories is the most likely cause for lowering the pH of river water?**

- (a) Soap and detergent factory
- (b) Lead battery manufacturing factory
- (c) Plastic cup manufacturing factory
- (d) Alcohol distillery

**14. Given below are a few statements related to biodiversity. Pick those that correctly describe the concept of biodiversity**

- (i) Biodiversity refers to the different species of flora and fauna present in an area
  - (ii) Biodiversity refers to only the flora of a given area
  - (iii) Biodiversity is greater in a forest
  - (iv) Biodiversity refers to the total number of individuals of a particular species living in an area
- (a) (i) and (ii)
  - (b) (ii) and (iv)
  - (c) (i) and (iii)
  - (d) (ii) and (iii)

15. Among the statements given below select the ones that correctly describe the concept of sustainable development
- (i) Planned growth with minimum damage to the environment
  - (ii) Growth irrespective of the extent of damage caused to the environment
  - (iii) Stopping all developmental work to conserve the environment
  - (iv) Growth that is acceptable to all the stakeholders
- (a) (i) and (iv)
  - (b) (ii) and (iii)
  - (c) (ii) and (iv)
  - (d) (iii) only
16. In our country, vast tracts of forests are cleared and a single species of plant is cultivated. This practice promotes
- (a) biodiversity in the area
  - (b) monoculture in the area
  - (c) growth of natural forest
  - (d) preserves the natural ecosystem in the area
17. Antelope cervicapara/Black Buck is
- a) Vulnerable
  - b) Endangered
  - c) Critically endangered
  - d) Extinct in the wild
18. Choose the correct option: mycorrhiza is a symbiotic association of fungus with root system which helps in
- (i) Absorption of water
  - (ii) Mineral nutrition
  - (iii) Translocation
  - (iv) Gaseous exchange
- Options:
- (a) Only i
  - (b) Only ii
  - (c) both i and ii
  - (d) both ii and iii
19. Bald Eagle had been at high risk of extinction due to its
- a) Large size
  - b) Low reproductive potential
  - c) High trophic level
  - d) Change in migratory
20. Plasticity in plant growth means that
- (a) Plant roots are extensible
  - (b) Plant growth is dependent on the environment
  - (c) Stems can extend
  - (d) None of the above
21. Biodiversity is determined by
- a) Number of individuals in an area
  - b) Species richness
  - c) Evenness
  - d) Both b and c

22. In North East India's region bamboo is an integral part of life. There are about 1,500 documented applications of bamboos, known as '*green gold*'. One of the states of the region , to help expand bamboo based industries, is now developing *India's first bamboo park* . The state grows 25 varieties of bamboo. Identify the states from the following:
- SIKKIM
  - MANIPUR
  - TRIPURA
  - ASSAM
23. The technology of biogas production from cow dung was developed in India largely due to the efforts of:
- Gas Authority of India
  - Oil and Natural Gas Commission
  - Indian Agricultural Research Institute and Khadi & Village Industries Commission
  - Indian Oil Corporation.
24. What will happen to a well growing herbaceous plant in the forest if it is transplanted outside the forest in a park?
- It will grow normally
  - It will grow well because it is planted in the same locality
  - It may not survive because of change in its micro climate
  - It grows very well because the plant gets more sunlight
25. Amensalism is an association between two species where:
- one species is harmed and other is benefitted
  - one species is harmed and other is unaffected
  - one species is benefitted and other is unaffected
  - both the species are harmed.
26. An inverted pyramid of biomass can be found in which ecosystem?
- Forest
  - Marine
  - Grass land
  - Tundra
27. Among the following, where do you think the process of decomposition would be the fastest?
- Tropical rain forest
  - Antarctic
  - Dry arid region
  - Alpine region
28. Climax community is in a state of:
- non-equilibrium
  - equilibrium
  - disorder
  - constant change
29. If the carbon atoms fixed by producers already have passed through three species, the trophic level of the last species would be.
- scavenger
  - tertiary producer
  - tertiary consumer
  - secondary consumer

30. Which of the following type of ecosystem is expected in an area where evaporation exceeds precipitation, and mean annual rainfall is below 100mm?  
(a) Grassland (c) Desert  
(b) Shrubby forest (d) Mangrove
31. Which of the following is an ecosystem service provided by a natural ecosystem?  
(a) Cycling of nutrients  
(b) Prevention of soil erosion  
(c) Pollutant absorption and reduction of the threat of global warming  
(d) All the above
32. Which of the following countries has the highest biodiversity?  
(a) Brazil (c) Russia  
(b) South Africa (d) India
33. Which of the following is not a cause for loss of biodiversity?  
(a) Destruction of habitat  
(b) Invasion by alien species  
(c) Keeping animals in zoological parks  
(d) Over-exploitation of natural resources
34. Which of the following is not an invasive alien species in the Indian context?  
(a) Lantana (c) Parthenium  
(b) Cynodon (d) Eichhornia
35. Where among the following will you find pitcher plant?  
(a) Rain forest of North-East India (c) Thar Desert  
(b) Sunderbans (d) Western Ghats
36. Which one of the following is not a major characteristic feature of biodiversity hot spots?  
(a) Large number of species (c) Large number of exotic species  
(b) Abundance of endemic species (d) Destruction of habitat
37. What is common to the following plants: *Nepenthes*, *Psilotum*, *Rauwolfia* and *Aconitum*?  
(a) All are ornamental plants  
(b) All are phylogenetic link species  
(c) All are prone to over exploitation  
(d) All are exclusively present in the Eastern Himalayas.
38. The one-horned rhinoceros is specific to which of the following sanctuary  
(a) Bhitarkanika (c) Kaziranga  
(b) Bandipur (d) Corbett park
39. Amongst the animal groups given below, which one has the highest percentage of endangered species?  
(a) Insects (c) Amphibians  
(b) Mammals (d) Reptiles
40. Which one of the following is an endangered plant species of India?  
(a) *Rauwolfia serpentina* (c) *Cycas beddomei*  
(b) *Santalum album* (Sandal wood) (d) All of the above

41. What is common to *Lantana*, *Eichhornia* and African catfish?  
 (a) All are endangered species of India.  
 (b) All are key stone species.  
 (c) All are mammals found in India.  
 (d) All the species are neither threatened nor indigenous species of India
42. The extinction of passenger pigeon was due to:  
 (a) Increased number of predatory birds.  
 (b) Over exploitation by humans.  
 (c) Non-availability of the food.  
 (d) Bird flu virus infection.
43. Which of the following statements is correct?  
 (a) *Parthenium* is an endemic species of our country.  
 (b) African catfish is not a threat to indigenous catfishes.  
 (c) Steller's sea cow is an extinct animal  
 (d) *Lantana* is popularly known as carrot grass.
44. Among the ecosystem mentioned below, where can one find maximum biodiversity?  
 (a) Mangroves  
 (b) Desert  
 (c) Coral reefs  
 (d) Alpine meadows
45. Which of the following forests is known as the 'lungs of the planet Earth'?  
 (a) Tiaga forest  
 (b) Tundra forest  
 (c) Amazon rain forest  
 (d) Rain forests of North East India
46. The active chemical drug reserpine is obtained from:  
 (a) *Datura*  
 (b) *Rauwolfia*  
 (c) *Atropa*  
 (d) *Papaver*
47. Which of the following group of plants exhibit more species diversity?  
 (a) Angiosperms  
 (b) Algae  
 (c) Bryophytes  
 (d) Fungi
48. What is common to the techniques (i) *in vitro* fertilisation, (ii) Cryo preservation and (iii) tissue culture?  
 (a) All are in situ conservation methods.  
 (b) All are ex situ conservation methods.  
 (c) All require ultra modern equipment and large space.  
 (d) All are methods of conservation of extinct organisms
49. As per the list compiled by the International Union for Conservation of Nature (IUCN) and the Zoological Society of London last year four Indian species feature in a list of the '100 most threatened' species in the world. Identify them?  
 a) The Great Indian Bustard, Gooty tarantula, Batagur buska, the White Bellied Heron  
 b) The Himalayan Quail, Cheetal, Kondana Rat, blue bull  
 c) The Gharial, snow leopard, Rhesus Monkey, The Anamalai Flying Frog  
 d) Flying Squirrel, Kashmir Stag, red Panda, The Great Indian Bustard
50. Which of the following species in the atmosphere is called atmospheric detergent?  
 (a) Chlorine radical  
 (b) Hydroxyl radical  
 (c) Methyl radical  
 (d) Ozone radical



51. Which of the following organisms can act as primary consumer, secondary consumer, tertiary consumer or scavenger in different types of food chains ?
- Raven
  - Tiger
  - Snake
  - Phytoplanktones
52. Which of the following is not a type of ex situ conservation method?
- Botanical garden
  - Zoological park
  - Wildlife sanctuaries
  - Gene banks
53. Poaching has escalated to crisis levels in recent years, and is a major threat to iconic species such as elephants, rhinos and tigers. In a bid to stop the global illegal wildlife trade, recently, the prime minister of a country has pledged to start a legislative process to end ivory trade that is leading to the slaughter of tens of thousands of elephants each year at the opening of the Convention on the International Trade in Endangered Species of Fauna and Flora (CITES). which country is this?
- Thailand
  - Nigeria
  - Democratic Republic of Congo
  - Tanzania
54. Which is a correct food chain in the Antarctic ecosystem ?
- Phytoplankton – Krill – Carnivorous Plankton – Emperor Penguin
  - Phytoplankton – Krill – Carnivorous Plankton – Squid – Elephant Seal – Leopard Seal
  - Phytoplankton – Herbivorous Zoo Plankton – Carnivorous Plankton – Adelie Penguin – Emperor Penguin
  - Herbivorous Zoo Plankton – Phytoplankton – Carnivorous Plankton – Elephant Seal – Leopard Seal
55. Indian wolf has become an important animal because
- It's name appears in Red Data Book.
  - It is only an important member of food chain of almost all Indian forests.
  - Wild dogs disappeared due to their presence.
  - It has been chosen as a State animal.
56. Who issues the Ecomark notification?
- Ministry of Environment and Forest, Govt. of India
  - Ministry of Human Health and Family Welfare, Govt. of India
  - Department of Science and Technology, Govt. of India
  - Bureau of Indian Standards
57. The *principal components* of photochemical smog in *urban areas* are
- SO<sub>2</sub> and NO<sub>2</sub>\*
  - SPM and CO
  - SPM and NO<sub>2</sub>
  - Hydrocarbons and Ozone
58. Which of the following habitats has not been included as Indian biodiversity hot spots?
- The Eastern Ghats
  - The Western Ghats
  - North-Eastern Hills
  - South-Eastern Hills

59. Match Column – I with Column – II :

**Column – I**

- (i) Chipko Movement
- (ii) Narmada Bachao Andolan
- (iii) Climate Change
- (iv) Silent Spring

Choose the correct code :

**Codes : (i) (ii) (iii) (iv)**

- a) 1 2 3 4
- b) 2 3 4 1
- c) 4 1 2 3
- d) 3 4 1 2

**Column – II**

- 1. Medha Patkar
- 2. Al Gore
- 3. Rachel Carson
- 4. Sundarlal Bahuguna

60. Consider the following statements:

- 1. "India Greenhouse Gas Program is the joint effort between the World Resources Institute(WRI), The Energy and Resources Institute (TERI) and the Confederation of Indian Industry (CII). A voluntary initiative to standardize measurement and management of GHG emissions in India.
- 2. Detroit giant Ford has become the first automaker to join a voluntary greenhouse gas reporting program (a carbon reporting programme) newly established in India.
- 3. It is aimed at promoting profitable, sustainable, and competitive business

Which of the above statement/s are correct?

- a) Only 1
- b) Only 2 and 3
- c) Only 1 and 2
- d) All the above

61. Match the waste class mentioned in Column – I with Color Code of the collection Container mentioned in Column – II.

**Column – I**

- a. Human Anatomical Waste
- b. Waste Scrap
- c. Discarded glass ware
- d. Disposable plastics

**Column – II**

- 1. Blue
- 2. Green
- 3. Red
- 4. White

**Codes : a b c d**

- a) 2 3 1 4
- b) 4 2 3 1
- c) 1 2 3 4
- d) 3 1 4 2

62. In which of the following categories of protected area in India are Certain rights of people living inside could be permitted?

- 1. National Parks
  - 2. Sanctuaries
  - 3. Conservation Reserves
  - 4. Community Reserves
- a) 3 and 4 only
  - b) 1,2 and 3 only
  - c) 2,3 and 4 only
  - d) All the above

63. Which one of the following rivers of India is well known for presence of dolphins?
- |                |             |
|----------------|-------------|
| a) Brahmaputra | c) Godavari |
| b) Ganga       | d) Narmada  |
64. Which one of the following is a waste recycling method of solid waste management?
- |                  |                      |
|------------------|----------------------|
| a) Pelletisation | c) Incineration      |
| b) Composting    | d) Sanitary Landfill |
65. What are methods for the determination of hazardous characteristics of wastes as per The Ministry of Environment & Forests, Govt. of India?
- |                 |                     |
|-----------------|---------------------|
| a) Ignitibility | c) Toxicity         |
| b) Reactivity   | d) All of the above |
66. The area of the biosphere which is protected entirely, without any experimentation and research and no biotic interference, is known as
- |                     |
|---------------------|
| a) Undisturbed zone |
| b) Buffer zone      |
| c) Core zone        |
| d) transition area  |
67. Which types of forests are found at an altitude of 5300 ft chiefly on mountains of Himalayas and Nilgiri?
- |                                    |
|------------------------------------|
| a) Dry deciduous forest            |
| b) Moist tropical forest           |
| c) Temperate forest                |
| d) Tropical moist deciduous forest |
68. Pyramids is a graphical representation or pyramid shaped diagram which depicts the number of organisms, biomass and productivity at each trophic level. Ecological pyramids begin with the producers at the bottom and proceed through the different trophic level. In this context, Pyramid of trophic levels which is always upright is:
- |            |                     |
|------------|---------------------|
| A. Biomass | C. Number           |
| B. Energy  | D. All of the above |
69. Consider the following statements:
1. Madhya Pradesh is the State with the largest forest cover in the country.
  2. REDD+ goes beyond merely checking deforestation and forest degradation, and include incentive for ecosystem services, biodiversity conservation, sustainable forest management and enhancement of carbon stock.
  3. Fire corals are in the list of critically endangered species because of its use in decoration and jewellery trade, sensitivity to temperature rise and growing global warming related bleaching effects.
- Which of the above statements are correct?
- |                 |                 |
|-----------------|-----------------|
| a) 1 and 3 only | c) 2 and 3 only |
| b) 1 and 2 only | d) 1,2 and 3    |

**70. Assertion (A) :** Biosphere constitutes an excellent life-support system which is sustainable and can fulfil all human needs.

**Reason (R) :** The size and productivity of the Biosphere is limited by availability of water, nutrients and environmental conditions. Identify the correct code :

Codes :

- a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- c) (A) is true but (R) is false.
- d) (A) is false but (R) is true.

**71. The treatment method recommended for the human anatomical waste generated from hospitals is**

- a) Chemical disinfection
- b) Autoclaving
- c) Incineration
- d) All the above

**72. Which of the following does not have a direct role in climate change?**

- a) Sulphate and nitrate aerosols
- b) Black carbon aerosols
- c) Surface ozone
- d) Nitric oxide

**73. Which one has higher diversity?**

- a) Three bird species, four birds of one and one bird each of other two types
- b) Six birds of three species, each with two individuals
- c) Two animals each of three species belonging to different taxonomic groups
- d) Both b and c

**74. When the full potential of physical, chemical and biological factors, a species can use if there is no competition, it is called**

- a) Fundamental niche
- b) Ecological niche
- c) Realized niche
- d) Competitive exclusion

**75. Identify the state.**

It's India's Greenest State with a forest cover 47.3% of its total geographical area and is more than double the national average of 21 %. The state government has fixed a target of bringing an additional 1,000 hectares of land under forest cover during the 12th Five Year Plan period (2012—17). It has achieved the distinction of being the greenest state in the country mainly due to various protection and conservation measures like Green Mission, Ten Minutes to Earth and Smriti Vans.

- a) Sikkim
- b) Chhatisgarh
- c) Tripura
- d) Assam

**76. In a national park protection is provided to**

- a) Entire ecosystem
- b) Flora and fauna
- c) Fauna only
- d) Flora only

**77. Ecological backlash (or Ecological Boomerang) is**

- a) Heat emission due to bomb explosion
- b) Production of useful ecological effect by a previously useful chemical
- c) Formation of secondary pollutant from reaction of primary pollutant
- d) Production of adverse ecological effect by a previously useful chemical

**78. Which is not an effect of global warming?**

- a) More extreme weather condition
- b) Poleward shifting of organism
- c) Rise of sea level
- d) Good fungal growth in soil

**79. Which is not an effect of acidic rain in a pond?**

- a) Increased fungal growth
- b) Decreased insect population
- c) Increased growth of green algae
- d)  $\text{NO}_3^-$  and  $\text{SO}_4^{2-}$  saturation

**80. According to Euro II norms, reduced sulphur content in fuels should be**

- a) 350 ppm in diesel and 150 ppm in petrol
- b) 150 ppm in diesel and 50 ppm in petrol
- c) 350 ppm in petrol and 150 ppm in diesel
- d) 150 ppm in petrol and diesel both

**81. Global agreement in specific control strategies to reduce of ozone depleting substances was adopted by**

- a) The Vienna Convention
- b) Rio de Janeiro Conference
- c) The Montreal Protocol
- d) The Kyoto Protocol

**82. Degree of biodiversity increases from**

- a) Equator to poles
- b) Poles to equator
- c) Low latitude to high latitude
- d) Low altitude to high altitude

**83. Which one of the following animals may occupy more than one trophic levels in the same ecosystem at the same time?**

- a) Goat
- b) Frog
- c) Sparrow
- d) Lion

**84. Which one among the following has been included as a parameter for the first time under the National Ambient Air Quality Standards (NAAQs) based on Central Pollution Control Board and IIT, Kanpur research, WHO guidelines and European Union limits and practices?**

- a) Sulphur dioxide
- b) Oxides of nitrogen
- c) Ozone
- d) Carbon monoxide

**85. 'Global Dimming' means**

- a) Gradual increase of the temperature of ionosphere
- b) Gradual loss biodiversity hot spots
- c) Gradual reduction of global direct irradiance at the earth surface
- d) Gradual increase in the melting of ice in Polar Regions

**86. Select the odd one out**

- (a) The movement of water across a semi permeable membrane is affected by the amount of substances dissolved in it.
- (b) Membranes are made of organic molecules like proteins and lipids
- (c) Molecules soluble in organic solvents can easily pass through the membrane.
- (d) Plasma membranes contain chitin sugar in plants

**87. In desert plants, rate of water loss gets reduced due to the presence of**

- (a) cuticle
- (b) stomata
- (c) lignin
- (d) suberin

**88. Wildlife is destroyed most when**

- a) There is lack of proper care
- b) Mass scale hunting for foreign trade
- c) Its natural habitat is destroyed
- d) Natural calamity

**89. Weeds affect the crop plants by**

- (a) killing of plants in field before they grow
- (b) dominating the plants to grow
- (c) competing for various resources of crops (plants) causing low availability of nutrients
- (d) All of the above.

**90. Consider the following statements:**

- 1. Sikkim will have India's first wildlife skywalk.
- 2. The skywalk to come will be similar to one in Grand Canyon in North America, which attracts over 3,00,000 visitors a year .
- 3. Manali has already a wildlife skywalk.

Which of the above statement/s is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 only
- d) 1,2 and 3



**95. Consider the following**

1. Plantation along the roadsides is providing **Green Muffler** to reduce noise pollution.
2. **Green Muffler** is a technology for reducing air pollution.
3. **Green Muffler** is a process of reducing mechanical vibration.

Which of the above statement/s is /are correct

- |                 |           |
|-----------------|-----------|
| a) Only 2 and 3 | c) Only 1 |
| b) Only 1 and 3 | d) Only 2 |

**96. Permafrost or cryotic soil** is a soil at or below the freezing point of water 0°C (32 °F) for two or more years. Most permafrost is located in high latitudes (i.e. land close to the North and South poles),

Which of the following statement/s is/are with regard to permafrost is/are true?

- (i) As per UNEP (United Nations Environment Programme) Large Carbon Dioxide and Methane emissions from Permafrost melting could significantly amplify global warming.
- (ii) Countries with the most permafrost: include Russia, Canada, China and the United States
- (iii) UNEP has recommended a special IPCC assessment on permafrost, the creation of national monitoring networks and adaptation plans.

Which of the above statement/s is/ are correct?

- |                    |                   |
|--------------------|-------------------|
| a) ii and iii only | c) ii and ii only |
| b) ii only         | d) i, ii and iii  |

**97. The primary producers in the marine ecosystem are**

- |                            |                         |
|----------------------------|-------------------------|
| a) Eubacteria and Algae    | c) Algae and Protozoans |
| b) Cyanobacteria and Algae | d) All of the above     |

**98. An interactive association between two populations in which one population benefits from the association, while the other is not affected, is**

- |               |                 |
|---------------|-----------------|
| a) Mutualism  | c) Commensalism |
| b) Neutralism | d) Symbiosis    |

**99. Ultrafiltration can remove**

- |                     |                  |
|---------------------|------------------|
| a) Suspended solids | c) Protozoa      |
| b) Bacteria         | d) All the above |

**100. Pila globosa** is used as biofilter in cleaning pollution of water for

- |                 |            |
|-----------------|------------|
| a) Algal blooms | c) Arsenic |
| b) Mercury      | d) Cadmium |



# ANSWER TEST

1. a
2. b
3. a
4. a
5. d
6. b
7. d
8. b
9. a
10. b
11. c
12. d
13. b
14. c
15. a
16. b
17. a
18. c
19. c
20. b
21. d
22. c
23. c
24. c
25. b
26. b
27. a
28. b
29. c
30. c
31. d
32. a
33. c
34. b
35. a
36. c
37. c
38. c
39. c
40. d
41. b
42. b
43. c
44. c

45. c
46. b
47. d
48. b
49. a
50. b
51. a
52. c
53. a
54. a
55. a
56. d
57. a
58. a
59. c
60. d
61. d
62. c
63. b
64. b
65. d
66. c
67. c
68. b
69. d
70. d
71. c
72. d
73. c
74. a
75. a
76. b
77. d
78. d
79. c
80. a
81. c
82. b
83. c
84. c
85. c
86. d
87. d

88. c
89. d
90. a
91. d
92. d
93. d
94. b
95. c
96. d
97. b
98. c
99. d
100. a

