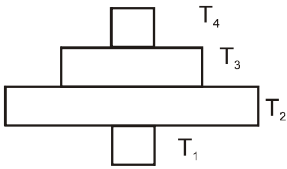


Self Practice Paper (SPP)

1. Which of the following is wrong about hot spots.
(1) They bear less than 2% area of earth (2) They show high degree of endemism
(3) They are rich in biodiversity. (4) They represent ex-situ conservation
2. What is percentage of global biodiversity found in India?
(1) 2% (2) 4.3 % (3) 8.1 % (4) 10.66 %
3. In lake victoria of Africa, which of the following is responsible for elimination of native cichlid fishes.
(1) Catla (2) African cat fish (3) Nile perch (4) Labeo
4. Endemic plants are those plants which grow in
(1) Fresh water lakes (2) Shady places
(3) Tissues of other plants (4) Geographically limited areas
5. Ex situ conservation is carried out in:
(1) Sanctuary (2) National park (3) biosphere reserve (4) Zoo
6. The brown lizard species (*Anolis sagrei*) was introduced in a habitat where the green lizard (*Anolis carolinensis*) dwelling. After some years, it was found that low shrubs and grasses were occupied by brown lizards while green lizards lived higher up in the trees and foliage. This is an example of niche separation due to:
(1) competition (2) commensalism (3) ammensalism (4) symbiosis
7. Introduction of *Clarius gariepinus* in aquaculture in India is a serious threat to extinction of
(1) Cray fish (2) Cichlid fish (3) Native cat fish (4) Salmon fish
8. What is 'Bioprospecting'
(1) Increasing production of useful products by using Bioresources
(2) Monitoring the loss of Biodiversity in different geographical areas
(3) Exploring molecular genetics and species level diversity for products of economic importance
(4) Selecting useful species for commercial utilization of them or their products.
9. In a given food chain suppose the amount of energy at the fourth trophic level is 6 KJ, what will be the energy available at producer level?
(1) 0.6 KJ (2) 60KJ (3) 600KJ (4) 6000KJ
10. Which of the following is a hot spot related with india
(1) Indoburma (2) eastern ghat (3) Indogangetic plain (4) Western Rajasthan
11. A researcher clips pinnae of 20 rabbits trapped in a section of forest and releases them. After a fortnight he traps 28 rabbits in the same section of forest and notices 4 of them with clipped pinnae. His estimate of rabbit population in the sector of the forest should be:
(1) 2240 (2) 560 (3) 140 (4) 112

12. Up to 2005, India contained
(1) 10 Biosphere Reserves, 50 National Parks and 400 Wildlife Sanctuaries
(2) 14 Biosphere Reserves, 50 National Parks and 400 Wildlife Sanctuaries
(3) 10 Biosphere Reserves, 90 National Parks and 448 Wildlife Sanctuaries
(4) 14 Biosphere Reserves, 90 National Parks and 448 Wildlife Sanctuaries
13. Gene bank includes
(1) Seeds (2) Tissue cultures
(3) Frozen germplasm (4) All the above
14. Which of the following is not an example of recent extinctions
(1) Thylacine (2) Quagga
(3) Stellar sea cow (4) None of these
15. Which of the following are biomagnified at different levels of food chain?
i. Heavy metal
ii. Aerosol
iii. DDT
iv. Green house gases
(1) i and ii (2) i and iv (3) i and iii (4) ii and iii
16. On the basis of number, which of the following is correct descending order for species
(1) Insect, Mollusca, Fungi (2) Crustacean, Fish, Fungi
(3) Fungi, Crustacean, Insect (4) Fungi, Mollusca, Fish
17. Which of the following is not true about SO₂ pollution?
(1) Decreasing membrane permeability in plant cells & lichens is indicator of its pollution
(2) It forms 60–70% part of acid rain
(3) In human, it causes bronchitis, asthma etc.
(4) It plays a major contribution to accelerate global warming on earth
18. Which is incorrect
(1) Red Data Book–IUCN
(2) By the high & strict protection of hot spots, the ongoing mass extinctions may reduce up to 22%
(3) Water logging & soil salinity are the problems that have come in the wake of green revolution
(4) In India air (prevention and control of pollution) Act came force in 1981, but was amended in 1987 to include noise as an air pollutant
19. Number of ecological hotspots in India are:
(1) 1 (2) 2 (3) 3 (4) 4
20. The distribution of an endangered organism is restricted in Runn of Kutchh & some part of Pakistan it is
(1) Panthera leo (2) Nepenthes (3) Lion tailed macac (4) Asinus hamionus
21. Species richness is also function of the area of a region; the species area relationship is generally function.
(1) Parabolic (2) Linear
(3) Sigmoid (4) Rectangular hyperbolic

22. The amazon rain forest harbouring probably millions of species is being cut and cleared for cultivating (a)..... or for conversion to (b)..... beef cattle. Here (a) and (b) are –
 (1) (a) Wheat (b) Fodder
 (2) (a) Bajra (b) Agriculture land
 (3) (a) Soyabean (b) Grassland
 (4) (a) Maize (b) Dairy industry
23. Which one of these is an in situ method of conservation?
 (1) National Park (2) Botanical garden (3) Tissue culture (4) Genetic engineering
24. The major reservoir of carbon on earth is ..(a).....It is about...(b).....Here (a) and (b) are.
 (1) (a) - Atmosphere (b) – 1%
 (2) (a) - oceans (b) – 71%
 (3) (a) - Lithosphere (b) – 49 %
 (4) (a) - oceans (b) – 52 %
25. Rivet popper hypothesis is proposed by
 (1) David Tilmen (2) Paul Ehrlich
 (3) Alexender Von Humbolt (4) Mayer
26. The temperate zone has less biological diversity than tropics due to
 (1) Undisturbed Environment for millions of years
 (2) Environment is less seasonal, relatively more constant and predictable.
 (3) Availability of solar energy is more.
 (4) Frequent glaciations in the past.
27.has the greatest biodiversity on earth- it is home to more than 40,000 species of plants, 3,000 of fishes, 1,300 of birds, 427 of mammals, 427 of amphibians, 378 of reptiles and of more than 1,25,000 invertebrates.
 (1) Temperate region like the Midwest of the USA.
 (2) Polar areas.
 (3) The largely tropical Amazonian rain forest in South America
 (4) Tropical deciduous forests
28. "Evil quartet" involves
 (1) Habitat loss & fragmentation (2) Alien species invasions
 (3) Overexploitation & coextinction (4) All of the above
29. Which of the followingwas related to significant reduction in the current rate of biodiversity loss at global, regional & local levels.
 (1) Kyoto protocol (1997)
 (2) Montreal protocol (1987)
 (3) Earth summit held in Rio de janerio (1992)
 (4) World summit on sustainable development held in Johannesburg (2002).
30. Which pair is correctly matched?
 (1) Sacred groves – Khasi and jaintia hills in Meghalaya.
 (2) Seed bank – Insitu Conservation
 (3) Ex situ conservation – Biosphere reserve
 (4) Exotic Species in India – Lantana camara & Mangifera indica.

31. Pollination, Pest control, climate moderation and flood control are indirect benefits of(a).... and it includes in(b) ..
 (1) a – Evolution ,b – Narrow utilitarian
 (2) a – Ecosystem ,b – ethical
 (3) a – Ecosystem services, b – broad utilitarian
 (4) a – Ecosystem services b – narrow utilitarian
32. Which of the following is not an endangered species.
 (1) Lion tailed macaque (2) Antelope cervicapra
 (3) Nepenthes (4) Bentinckia nicobarica
33. Select the correct pair
 (1) Bioprospecting – Narrow utilitarians
 (2) Biomagnification – Selection of improved varieties
 (3) Biofortification – Increasing inorganic substances in successive trophic levels
 (4) BOD – Increasing during secondary treatment of sewage in ETP
34. Select the wrong pair
 (1) Genetic diversity – Rauwolfia vomitoria
 (2) Pyramid of biomass of tree ecosystem – upright
 (3) Polyblend – Increasing water repellant capacity of Roads up to three times
 (4) Reproductive fitness – Reduced 'r' (intrinsic rate of natural increase)
- 35.
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- In the above diagram of tree ecosystem, what is most appropriate for T_2
 (1) Small birds (2) Insects (3) large birds (4) Parasites only
36. The amount of nutrients, such as carbon, Nitrogen, Phosphorus, Calcium etc. present in the soil at any given time is referred to as
 (1) Standing crop (2) Standing state
 (3) Nutrient cycling (4) None of the state
37. In an aquatic ecosystem, a student observed that the lowest tier of the pyramid of biomass was much narrower than the rest. The main producers of this ecosystem most likely are:
 (1) single-celled protists (2) aquatic plants
 (3) grasses (4) all the above.
38. Two opposite forces operate in the growth and development of every population. One of them is related to the ability to reproduce at a given rate.
 The force opposite to it is called
 (1) fecundity (2) environmental resistances
 (3) biotic control (4) mortality
39. The bacteria which attack dead animals are

- (1) first link of the food chain and are known as primary producers
- (2) second link of the food chain and are herbivorous
- (3) third link of the food chain and are tertiary consumers
- (4) the end of food chain and are decomposers.

40. A lake near a village suffered heavy mortality of fishes within a few day. Consider the following reasons for this?
- (a) lots of urea and phosphate fertilizer were used in the vicinity.
 - (b) the area was sprayed with DDT by an aircraft.
 - (c) the lake water turned green and stinky.
 - (d) phytoplankton populations in the lake declined initially thereby greatly reducing photosynthesis.
- (1) b, c (2) a, d (3) a, c (4) c, d
41. Which of the following is not an invasive species?
- (1) *Parthenium hysterophorus* (2) *Nelumbo* (lotus)
 - (3) *Lantana camara* (4) *Eichhornia crassipes*
42. Monarch butterfly escapes from predators by
- (1) foul smell (2) bitter taste (3) colour combination (4) rough skin
43. Which of the following statement is correct?
- (1) Catalytic converter can separate particulate matter of diameter less than 2.5 micrometers.
 - (2) Histones are acidic in nature that forms core for DNA packaging.
 - (3) *Lactobacillus* is not present in dough used in idli formation.
 - (4) Template with polarity 5' 3' shows continuous DNA replication.
44. Animals take phosphorus from
- (1) water (2) plants (3) rock (4) soil
45. Which part of the world has a high density of organisms?
- (1) deciduous forests (2) grasslands
 - (3) tropical rain forests (4) savannahs

SPP Answers

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. | (4) | 2. | (3) | 3. | (3) | 4. | (4) | 5. | (4) | 6. | (1) | 7. | (3) |
| 8. | (3) | 9. | (4) | 10. | (1) | 11. | (3) | 12. | (4) | 13. | (4) | 14. | (4) |
| 15. | (3) | 16. | (4) | 17. | (4) | 18. | (2) | 19. | (3) | 20. | (4) | 21. | (4) |
| 22. | (3) | 23. | (1) | 24. | (2) | 25. | (2) | 26. | (4) | 27. | (3) | 28. | (4) |
| 29. | (4) | 30. | (1) | 31. | (3) | 32. | (2) | 33. | (1) | 34. | (4) | 35. | (2) |
| 36. | (2) | 37. | (1) | 38. | (2) | 39. | (4) | 40. | (3) | 41. | (2) | 42. | (2) |
| 43. | (1) | 44. | (2) | 45. | (3) | | | | | | | | |