

BOTANY

1. Chipko movement was launched for protection of  
✓ a) Forest b) Grasslands c) Wetlands d) Livestock
2. Which one of the following is an example of Ex Situ Conservation.  
a) Sacred groves b) National Park c) Wildlife Sanctuary ✓ d) Seed bank.
3. Which one has the highest number of species.  
a) Birds b) Angiosperms ✓ c) Fungi d) Insects.
4. Core, buffer and manipulation zones are found in.  
a) National Park ✓ b) Biosphere reserve c) Sanctuary. d) Tiger Reserve.
5. Photochemical Smog consists of:  
a)  $SO_2$ ,  $CO_2$ , hydrocarbons b)  $O_3$ ,  $SO_2$ , hydrocarbons.  
✓ c)  $O_3$ , PAN,  $NO_x$  d)  $SO_2$ , PAN, Smoke.
6. Bhopal Gas tragedy of 1984 took place because methyl isocyanate reacted with:  
a) DDT b) Ammonia c)  $CO_2$  ✓ d) Water
7. Which one of the following is mismatched:  
a) Fossil fuel burning - Release of  $CO_2$   
b) Nuclear power - Radioactive wastes  
✓ c) Solar Energy - Green house effect  
d) Biomass burning - Release of  $CO_2$
8. Which one is nonbiodegradable:  
a) sewage b) Market garbage c) Livestock waste  
✓ d) DDT.
9. Shifting Cultivation is:  
✓ a) Agroforestry b) Social forestry c) Conservation  
d) Industrial forestry.



10. Ozone layer occurs in:

- a) Troposphere b) Stratosphere c) Mesosphere d) Exosphere

11. Montreal Protocol was passed in:

- a) 1985 b) 1986 c) 1987 d) 1988

12. Identify the correctly matched pair:

- a) Basel Convention - Biodiversity conservation  
b) Kyoto Protocol - climate change.  
c) Montreal Protocol - Global warming  
d) Ramsar Convention - Ground water pollution.

13. Eutrophication of water bodies leading to killing of fishes is mainly due to nonavailability of:

- a) food b) light c) Essential minerals d) Oxygen.

14. Biochemical oxygen demand may not be good index for water bodies receiving effluents from:

- a) Sugar industry b) Domestic sewage c) Dairy industry  
d) Petroleum industry.

15. Depletion of which gas in the atmosphere can lead to an increased incidence of skin cancer:

- a) Methane b) Nitrous oxide c) Ozone d) Ammonia

16. Which of the following is the most suitable indicator of SO<sub>2</sub> pollution in the environment:

- a) Lichens, b) conifers c) Algae d) fungi

17. Highest plant Productivity occurs in:

- a) Desert b) Temperate grassland c) Tropical rain

18. The Term Ecosystem was coined by:

- a) Warming, b) Odum c) Tansley d) Haeckel.

19. Breakdown of detritus into small particles by detritivores is called:



- a)  Fragmentation b) Humification c) catabolism  
d) Mineralisation e) Leaching.

20. Which pair is mismatched:

- a) Tundra - permafrost b) Savana - Acacia tree  
c) Prairie - Epiphytes d) Coniferous forest -  
Evergreen trees.

21. Lichen is pioneer in succession:

- a) Hydrosere b) Lithosere c) Psammosere d) Xerosere

22. Trophic levels in Ecosystem are formed by:

- a) only bacteria b) only plants c) only herbivores  
 d) organisms linked in food chain.

23. Which one occupies more than one trophic level in a pond ecosystem:

- a) Zooplankton b) Phytoplankton c) fish d) dog.

24. One species is harmed whereas the other is unaffected the interaction is:

- a) Amensalism b) Commensalism c) Parasitism  
d) Predation.

25. Competition results in:

- a) Extinction b) Mutation c) larger number of niches  
d) Symbiosis.

26. Cuscuta is an Example of:

- a) Endoparasitism b) Predation c) Ectoparasitism  
d) Brood Parasitism.

27. Interaction of species with the environment is known as:

- a) Ecosystem b)  Autecology c) Synecology d) Community

28.



28. Deforestation is responsible for rapid:

- a) Desertification
- b) Rapid Urbanization
- c) Rapid Industrialization
- d) All correct.

29. Coniferous forest develop in Himalayas in areas of:

- a) Physical dryness
- b) Physiological dryness
- c) Very high rain fall
- d) Intense biotic interference

30. Mangrove forests are luxuriantly distributed in:

- a) Sunderban areas
- b) Himalayas
- c) Tropical forests
- d) Deserts of India

31. Reindeer mosses are found in:

- a) Tundra Province
- b) Ponds and lakes
- c) Alpine forests
- d) None

32. Vivipary and Pneumatophores formations are seen in:

- a) Alpine forest
- b) Arctic vegetation
- c) mangrove forest
- d) Tropical forests

33. Silent valley is in:

- a) Kerala
- b) Uttarakhand
- c) Himachal Pradesh
- d) Madhya Pradesh

34. Western region of India is:

- a) Assam
- b) Meghalaya
- c) U.P.
- d) Rajasthan

35. Water available to roots is:

- a) Holand
- b) Chresard
- c) Echarad
- d) Hygroscopic moisture

36. Submerged hydrophytes absorb water through:

- a) Rhizoids
- b) Velamen
- c) Entire body surface.
- d) Root only.

37. Bharatpur Bird Sanctuary is in:

- a) Rajasthan
- b) U.P.
- c) Assam
- d) J & K



38. 'Green India' can be created through:

- a) Social Forestry b) Van-Mahotsava c) Afforestation  
✓ d) All correct

39. In 1989 'UNESCO' declared 'World Heritage Site'

- to: a) ✓ Manas Wildlife Sanctuary,  
b) Corbett National Park c) Kaziranga National  
Park d) Silent Valley of Kerala.

40. First National Park of India was:

- a) ✓ Hailey National Park of U.P. b) Kanha National  
Park of M.P. c) Silent Valley National Park of  
Kerala d) Manas National Park of Assam.

41. Red data Book includes the names of important SP.  
of flora and fauna which have now become:

- a) ✓ Abundant b) common c) Exotic d) Endangered.

42. Red data book was published from:

- a) New Delhi b) IUCN Switzerland c) B.S.I  
Kolkata d) M.B.R.I. Lucknow.

43. The temperature of liquid nitrogen used for  
cryopreservation is:

- a)  $-161^{\circ}\text{C}$  b)  $-196^{\circ}\text{C}$  c)  $-101^{\circ}\text{C}$  d)  $-121^{\circ}\text{C}$

44. Mulching is the process of conservation of:

- a) Soil fertility b) ✓ Soil moisture c) Soil N.P.K  
d) Soil organic matter.

45. Little Leaf of Boinjal is:

- a) ✓ Mycoplasma disease b) Bacterial disease c) Fungal  
disease d) Viral disease.

46. Mechanism of disease development is known as:

- a) Etiology b) ✓ Pathogenesis c) Epidemiology d) Inter



47. Which of these is a bacterial disease of Plants:

- a) Citrus canker
- b) Late blight of potato
- c) Red rot of sugarcane
- d) Rust of wheat.

48. Annual recurrence of Puccinia in India was discovered by:

- a) R.N. Singh
- b) K.C. Mehta
- c) T. Sadasivan
- d) ~~Answorth~~

49. "World Wetland Day" is celebrated on:

- a) 10 March
- b)  2 February
- c) 5 January
- d) 7 April

50. Ephemerals are a type of Xerophytes:

- a) Drought escaping
- b) Drought resisting
- c) Drought Enduring
- d) None.

51. Acid rains are chiefly caused by oxides of:

- a) Sulfur & Nitrogen
- b) Carbon
- c) Iron
- d) Phosphorus.

52. Chernobyl nuclear disaster was occurred in:

- a) U.S.A
- b) Japan
- c)  U.S.S.R
- d) Australia

53. Coralloid root of cycas exhibits:

- a) facultative Symbiosis
- b) Obligat Symbiosis
- c) ~~Proto cooperation~~
- c) Proto cooperation
- d) commensalism

54. Root nodules appear red due to presence of:

- a) Anthocyanin
- b) Phytochromes
- c) cytochromes
- d) Leg-haemoglobin.

55. Lions and Tiges are giant Predators and they regulate population of:

- a) Herbivores
- b) Smaller predators
- c) Carnivores of lower order
- d)  All correct.

56. Classical examples of Epiphytes are:

- a) lichens and orchids
- b) climbers and lianes
- c) phytoplanktonic algae
- d) None correct.



57. *Klebsiella* is a:

- ✓ a) Nitrogen fixer b) Parasite c) Commensal d) Host

58. Epilimnion, thermocline, and hypolimnion formation occur in:

- a) Dense forest b) Deserts c) Deep lakes d) Shallow eutrophic lakes.

59. Remote Sensing is used for:

- ✓ a) Weather forecasting b) Soil pH determination c) Soil testing d) None.

60. Podzolization occurs in:

- ✓ a) Cool temperate zone b) Warm tropical zone  
c) Arid and semi-arid zones. d) Calcium rich soils

61. *Ruscus* and *Coccoloba* develop:

- a) Phylloides b) Phylloclades c) cladode d) None.

62. 'Narmada Bachao Andolan' was organised by:

- a) Kalpavriksh b) Centre for Science and Environment  
c) Bombay Natural History Society. d) State Pollution Control Board.

63. The alternate host of *Puccinia graminis* except wheat is:

- a) Paddy b) maize c) Rye d) Barberry

64. 'White Rust of Crucifers' is caused by:

- a) *Albugo candida* b) *Ustilago nuda* c) *Puccinia graminis* d) None

65. Wart disease of Potato is caused by:

- a) *Phytophthora infestans* b) *Alternaria solani*  
c) *Synchytrium endobioticum* d) None



66. Itai-itai disease in Japan was caused by consumption of rice contaminated with:

- a) mercury b) Iron c) cadmium d) Zinc

67. Crustose lichen stage is followed by:

- a) Liverworts b) Foliose lichens c) Mosses d) Herbs

68. In Succession, the deciding factor is usually:

- a) Soil b) Community c) Climate d) Biota.

69. Nitrosomonas and Nitrobacter are incapable of using:

- a) Inorganic raw materials b) Ammonia  
c) Sunlight d) Aerobic conditions.

70. Ability of nitrogen fixation is not found in:

- a) Algae b) fungi c) Bacteria d) Mycoplasma.

71. Carbon cycle involves:

- a) Plants b) Animals c) Micro-organisms  
d) All of the above.

72. 'Red Rot of Sugarcane' is caused by:

- a) Colletotrichum falcatum b) Fusarium oxysporum  
c) Alternaria solani. d) None.

73. "Damping off" of seedling is caused by:

- a) Pythium debaryanum b) Alternaria solani  
c) Synchytrium endobioticum d) None

74. In Puccinia graminis diploidization occurs in:

- a) Basidiospores b) Teliospores c) Uredospores  
d) Aeciospores.

75. The fungus useful in biological control of plant disease:

- a) Penicillium notatum b) Mucor mucedo  
c) Phytophthora parasitica d) Trichoderma viride



76. *Opuntia* lacks:

- a) Stems
- b) flowers and fruits
- c) Leaves
- d) Roots.

77. Plants preferring very low temperature of winter and below  $10^{\circ}\text{C}$  temperature in summer are:

- a) Microtherms
- b) Megatherms
- c) Mesotherms
- ✓ d) Heliostherms.

78. In pond ecosystem, Pyramid of biomass is:

- a) upright
- b) Inverted
- c) Anything is possible
- d) None.

79. MAB is abbreviation of:

- ✓ a) Man and biosphere
- b) Man action in biosphere
- c) Man and biome
- d) None.

80. Most stable ecosystem on earth is:

- a) Fresh water ecosystem
- b) forest ecosystem
- c) Grassland ecosystem
- d) Desert ecosystem.

81. Biomass stands for:

- ✓ a) Dry matter per unit area
- b) Fresh weight per unit area
- c) Dry matter produced per annum
- d) None

82. Major amount of radiant energy is used in:

- a) Photosynthesis
- b) Photoperiodism
- c) Photomorphogenetic activities
- d) Evapotranspiration

83. Antagonistic effect is shown by:

- ✓ a) *Penicillium* and *Scheptomyces*
- b) *Tagetes*
- c) *Teak* and *sal*
- d) *Eichhornia*

84. *Phytophthora infestans* is:

- a) An obligate parasite
- b) Facultative parasite
- c) Obligatē saprophyte
- d) forest community



85. Nutrient cycle which is often affected by weathering of rocks is:

- a) carbon cycle
- b) Nitrogen cycle
- c) Phosphorus cycle
- d) All

86. In a freshwater ecosystem the zone getting effective light for producers is:

- a) littoral zone
- b) limnetic zone
- c) sublittoral zone
- d) Profundal zone

87. Which part of atmosphere prevents ultraviolet radiations from reaching the Earth's surface:

- a) Stratosphere
- b) Troposphere
- c) mesosphere
- d) Ionosphere

88. Heterotrophic organisms which do not form predator organisms are:

- a) Decomposers
- b) Herbivores
- c) lithotrophs
- d) carnivores.

89. Predators are:

- a) Plant Parasites
- b) Animal Parasites
- c) Animals feeding on other Animals
- d) All

90. Rhizosphere microflora represent:

- a) Antagonism
- b) mutualism
- c) commensalism
- d) Protocooperation

91. Maximum rate of Net Primary Productivity has been reported from:

- a) forest communities
- b) Freshwater communities
- c) coral reef communities.
- d) Grassland communities



92. Biosphere is composed of:

- a) living organism
- b) living organism + lithosphere
- c) living organism + lithosphere + Atmosphere
- ✓ d) living organism + lithosphere + Atmosphere + Hydrosphere

93. DDT is:

- a) Biodegradable
- ✓ b) Non-biodegradable
- c) Growth regulator
- d) Antibiotic.

94. IPM is:

- ✓ a) Integrated pest management
- b) International Pest management
- c) Inorganic Pesticide mixture
- d) None

95. BHC is:

- ✓ a) Benzene hexachloride
- b) Benzene heptachloride
- c) Benzene hydrochloride
- d) Bromine hydrochloride

96. Cotton fibres are made of:

- a) fats
- b) Proteins
- ✓ c) cellulose
- d) None

97. First man made cereal is:

- a) oat
- b) Barley
- ✓ c) Triticale
- d) Ragi

98. Highest Protein Percentage is in seeds of:

- a) *Cajanus cajan*
- ✓ b) *Glycine max*
- c) *Vicia faba*
- d) *Cicer arietinum*

99. Which is not a green manure:

- a) Sunn hemp
- b) Barseem
- c) Lentil
- ✓ d) Egg-plant



100. Leaves of Azolla house the colonies of:  
a) Rhizobium b) Azotobacter c) Anabaena  
d) Azospirillum.

