

2020

Time : 1½ hours

Full Marks : 40

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer all questions.

Answer all multiple-choice questions :

1×40 = 40

1. According which ecologist ecology is defined as "The study of structure and function of nature" :

- (i) Odum
- (ii) Eliote
- (iii) R. Mishra
- (iv) Margaleaf

①

2. Study of soil is known as :

- (i) Agronomy

①

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(Turn over)

- (ii) Pedagogy
- (iii) Sociobiology
- (iv) None of these

3. Predator and Pray relation was given by :

- (i) Gaus G. F.
- (ii) Lotka and Voltera
- (iii) Holling C. S.
- (iv) None of them

4. The study of plant community structure is called :

- (i) Ecology
- (ii) Phytosociology
- (iii) Autecology
- (iv) Ecosystem

5. The term Autoecology and synecology was coined by :

- (i) Schroter
- (ii) A. G. Tansley
- (iii) Karl Mobius
- (iv) None of them

CL – 95/3

(2)

Contd.

6. Biocenosis is the study of :
- (i) Living
 - (ii) Environment
 - (iii) Interaction between living and non-living
 - (iv) None of these
7. The famous plant ecologist of India is :
- (i) M. S. Swaminathan
 - (ii) Birbal Sahni
 - (iii) R. Mishra
 - (iv) J. C. Bose
8. The lowest region of Atmosphere having differential heating which extends from the earth surface to a height of 8 to 10 km at polar latitude is called :
- (i) Troposphere
 - (ii) Stratosphere
 - (iii) Mesosphere
 - (iv) None of these
9. The percentage of Nitrogen in atmospheric air is :
- (i) 78%

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(3)

(Turn over)

- (ii) 79%
- (iii) 80%
- (iv) 78.09%

10. Sandy soil contain :

- (i) Kaolin
- (ii) Haematite
- (iii) Biotite
- (iv) Quarts

11. Root cap is absent in :

- (i) Lithophyte
- (ii) Hydrophyte
- (iii) Xerophytes
- (iv) Mesophytes

12. Diatoms are commonly known as :

- (i) Benthos
- (ii) Upper surface of water
- (iii) Saprophytes
- (iv) Parasites

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(4)

Contd.

13. Abyssal zone in ocean is characterised by :

- (i) Presence of sunlight and produces
- (ii) Absence of sunlight and living organisms
- (iii) Absence of sunlight
- (iv) Absence of sunlight and presence of consumers and decomposers

14. The largest amount of fresh water on our planet is in :

- (i) Polar ice caps and glaciers
- (ii) Underground
- (iii) Rivers
- (iv) Lakes and streams

15. Functional stomata in submerged hydrophytes is :

- (i) On upper surface of leaf
- (ii) On lower surface of leaf
- (iii) On both surface of leaf
- (iv) No where on the plant

16. Gaseous exchange in submerged hydrophytes takes place through :

- (i) Lenticels
- (ii) Stomata
- (iii) Hydathodes
- (iv) General surface of plants by diffusion

17. Sunken stoma are present in :

- (i) Xerophytes
- (ii) Hydrophytes
- (iii) Mesophytes
- (iv) Epiphytes

18. Carbon dioxide content in atmospheric air is about :

- (i) 0.03%
- (ii) 0.34 %
- (iii) 3.34 %
- (iv) 6.5%

19. Soil particles arranged in order of increasing size are :

- (i) Clay, sand, silt

- (ii) Silt, sand, clay
- (iii) Sand, silt and clay
- (iv) Clay, silt and sand

20. pH of fertile soil is :

- (i) 2-3
- (ii) 6-7
- (iii) 8-10
- (iv) 11-12

21. Humus is an example of :

- (i) Crystalloid
- (ii) Soil structure
- (iii) Organic colloids
- (iv) None of these

22. Dormancy in animals through drought or dry season is called :

- (i) Hibernation
- (ii) Aestivation
- (iii) Diapause
- (iv) None of these

23. Direct ecological factor is :

- (i) Soil structure
- (ii) Wind
- (iii) Temperature
- (iv) Carbon dioxide

24. Circadian rhythm is the metabolic behaviour of :

- (i) 24 minute cycle
- (ii) 24 hour cycle
- (iii) 24 day cycle
- (iv) 24 month cycle

25. The relationship between water form Azolla and Cyanobacterium Anabaena is called :

- (i) Symbiosis
- (ii) Competition
- (iii) Scavenging
- (iv) Commensalism

26. The relationship which is harmful to both the population is called :

- (i) Neutralism

- (ii) Competition
- (iii) Parasitism
- (iv) Antibiosis

27. The association between sacculina and crab is referred as :

- (i) Symbiosis
- (ii) Mutualism
- (iii) Parasitism
- (iv) Commensalism

28. The positive interaction between two population is called :

- (i) Antagonism
- (ii) Competition
- (iii) Predation
- (iv) Symbiosis

29. Cuscuta is an example of :

- (i) Complete stem parasite
- (ii) Complete root parasite
- (iii) Partial root parasite
- (iv) Partial stem parasite

30. The carrying capacity of a population is determined by its :

- (i) Population growth rate
- (ii) Birth rate
- (iii) Death rate
- (iv) Limited resources

31. The ecological pyramid was described by :

- (i) Tansley
- (ii) Smith
- (iii) Charles Elton
- (iv) Weber

32. The source of energy which flows through the living world is :

- (i) Photosynthesis
- (ii) Chemical bond
- (iii) Green plants
- (iv) The Sun

33. Inverted pyramid of energy flow is :

- (i) Desert

- (ii) Ocean
- (iii) Tundra
- (iv) Rain forest

34. Epiphytes are most abundant in a :

- (i) Tropical rainforest
- (ii) Temperate deciduous forest
- (iii) Thorn woodland
- (iv) Shrubland

35. Deciduous forest have :

- (i) Variety of leaves
- (ii) Broad leaved trees
- (iii) Narrow leaved trees
- (iv) None of these

36. Deserts can be converted into green lands by :

- (i) Oxylophytes
- (ii) Psammophytes
- (iii) Halophytes
- (iv) Tropical trees

37. A region of wever winter and mild summeris known as :

- (i) Noosphere

- (ii) Cultigen
- (iii) Holard
- (iv) Taiga

38. Which organisms have valent adaptation ?

- (i) Insects
- (ii) Crow
- (iii) Bat
- (iv) Peacock

39. Largest aquatic animal is :

- (i) Dolphin
- (ii) Crocodile
- (iii) Tortoise
- (iv) Whale

40. Main air pollutant is :

- (i) CO
- (ii) CO₂
- (iii) Ozone
- (iv) Fluorides

