

QB365 Question Bank Software Study Materials

Botany - Ecosystem 50 Important 1 Marks Questions With Answers (Book Back and Creative)

12th Standard

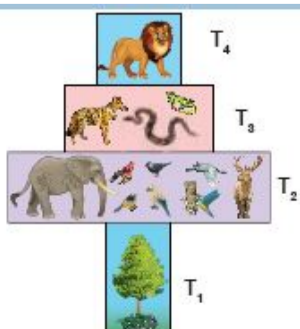
Biology

Total Marks : 50

Multiple Choice Question

50 x 1 = 50

- 1) Which of the following is not a abiotic component of the ecosystem?
(a) Bacteria (b) Humus (c) Organic compounds (d) Inorganic compounds
- 2) Which of the following is / are not a natural ecosystem?
(a) Forest ecosystem **(b) Rice field** (c) Grassland ecosystem (d) Desert ecosystem
- 3) Pond is a type of _____.
(a) forest ecosystem (b) grassland ecosystem (c) marine ecosystem **(d) fresh water ecosystem**
- 4) Pond ecosystem is _____.
(a) not self sufficient and self regulating (b) partially self sufficient and self regulating
(c) self sufficient and not self regulating **(d) self sufficient and self regulating**
- 5) Profundal zone is predominated by heterotrophs in a pond ecosystem, because of _____.
(a) with effective light penetration **(b) no effective light penetration** (c) complete absence of light (d) a and b
- 6) Solar energy used by green plants for photosynthesis is only _____.
(a) 2 – 8% **(b) 2 – 10%** (c) 3 – 10% (d) 2 – 9%
- 7) Which of the following ecosystem has the highest primary productivity?
(a) Pond ecosystem (b) Lake ecosystem (c) Grassland ecosystem **(d) Forest ecosystem**
- 8) Ecosystem consists of _____.
(a) decomposers (b) producers (c) consumers **(d) all of the above**
- 9) Which one is in descending order of a food chain?
(a) Producers → Secondary consumers → Primary consumers → Tertiary consumers
(b) Tertiary consumers → Primary consumers → Secondary consumers → Producers
(c) Tertiary consumers → Secondary consumers → Primary consumers → Producers
(d) Tertiary consumers → Producers → Primary consumers → Secondary consumers
- 10) Significance of food web is / are _____.
(a) it does not maintain stability in nature (b) it shows patterns of energy transfer (c) it explains species interaction
(d) b and c
- 11) The following diagram represents



- (a) pyramid of number in a grassland ecosystem (b) pyramid of number in a pond ecosystem
(c) pyramid of number in a forest ecosystem (d) pyramid of biomass in a pond ecosystem
- 12) Which of the following is / are not the mechanism of decomposition
 (a) Eluviation (b) Catabolism **(c) Anabolism** (d) fragmentation
- 13) Which of the following is not a sedimentary cycle
(a) Nitrogen cycle (b) Phosphorous cycle (c) Sulphur cycle (d) Calcium cycle
- 14) Which of the following are not regulating services of ecosystem services
 i) Genetic resources
 ii) Recreation and aesthetic values
 iii) Invasion resistance
 iv) Climatic regulation
 (a) i and iii (b) ii and iv **(c) i and ii** (d) i and iv
- 15) Identify the incorrect option among the following component sequence.
 (a) air, water, sunlight and temperature **(b) latitude, altitude, direction of mountain and aptitude**
 (c) soil air, pH of soil, saltwater and soil moisture (d) carbohydrate, protein, lipids and humic substances
- 16) Which group of organism occupies the third trophic level in an ecosystem?
 (a) Primary consumers **(b) Secondary consumers** (c) Secondary carnivores (d) Omnivores
- 17) The type of ecosystem with maximum net primary productivity is _____
 (a) Desert ecosystem (b) Deciduous forest ecosystem **(c) Tropical rain forest ecosystem** (d) Grassland ecosystem
- 18) Pyramid of numbers with broad base indicates _____
 (a) High population of old individuals **(b) Low population of young individuals** (c) High population of young individuals
 (d) Low population of old individuals
- 19) Spindle shaped pyramid is a character of _____
 (a) Pond ecosystem (b) Grassland ecosystem (c) Parasite ecosystem **(d) Forest ecosystem**
- 20) Read the statement and select the correct terminology for the same:
 "Carrying away of inorganic compounds of soil by water".
(a) Eluviation (b) Fragmentation (c) Humification (d) Mineralisation
- 21) Which of the following is abundant in rock deposits and guano?
 (a) Nitrogen **(b) Phosphorous** (c) Oxygen (d) Calcium
- 22) The bottom most zone of a pond is termed as .
 (a) Limnetic zone (b) Littoral zone **(c) Benthic zone** (d) Profundal zone
- 23) Assertion (A): In forest ecosystem, the pyramid of number is spindle shaped.
 Reason (R): Tropical level (T₁) of the pyramid occupies large trees which are maximum in number.
 (a) Both A and R are wrong **(b) A is right R is wrong** (c) R explains A
 (d) A is right R is not the correct explanation for A
- 24) Succession initiating on a sand referred as
 (a) Hydrosere **(b) Psammosere** (c) Halosere (d) Lithosere

- 25) Statement (I): The first invaded plants in a barren area are called as pioneers.
Statement (II): Marsh meadow stage of hydro sere succession is also called as amphibious stage.
- (a) Statement I is correct; Statement II is incorrect.** (b) Statement I is incorrect; Statement II is correct.
(c) Both Statements I and II are correct. (d) Both Statements I and II are incorrect.
- 26) _____ is the climax community of hydro sere.
- (a) Reed swamp stage (b) Marsh meadow stage (c) Shrub stage **(d) Forest stage**
- 27) _____ proposed the term ecosystem.
- (a) Odum (b) Haeckel (c) Warming **(d) A.G. Tansley**
- 28) _____ defined ecosystem as the structural & functional unit of ecology.
- (a) Odum** (b) Haeckel (c) Warming (d) A.G. Tansley
- 29) _____ refers to the position of an organism in the food chain.
- (a) Productivity **(b) Trophic level** (c) Pyramid of number (d) Energy flow
- 30) Ten percent law was proposed by _____
- (a) Warming (b) Odum **(c) Lindeman** (d) A.G. Tansley
- 31) _____ is the main source of energy for the grazing food chain
- (a) Plants (b) Autotrophs **(c) Sun** (d) Organic matter
- 32) Find the correct pair
- (a) Littoral zone - Deeper region of a pond (b) Limnetic zone - Closest to shallow water
(c) Profundal zone - Shallow region of a pond **(d) Benthic zone - Bottom zone of a pond**
- 33) _____ has found that humans have changed the ecosystem extensively & rapidly.
- (a) Millennium ecosystem Assessment** (b) millennium food chain Assessment (c) Millennium energy flow Assessment
(d) Millennium ecosystem food web
- 34) Match the following and find the correct answer.
- (a) i) Green carbon - A) Carbon in Industrialised forest (b) ii) Green carbon - B) Carbon in atmosphere
(c) iii) Green carbon - C) Carbon in fossil fuel **(d) iv) Green carbon - D) Carbon in biosphere**
- 35) Match the following and find the correct answer:
- | | |
|------------------------------------|----------------|
| i) Free floating hydrophyte | A) Utricularia |
| ii) Rooted floating hydrophyte | B) Pistia |
| iii) Submerged floating hydrophyte | C) Hydrilla |
| iv) Rooted - submerged hydrophyte | D) Nymphaea |
- (a) (i)-B, (ii)-D, (iii)-A, (iv)-C (b) (i)-B, (ii)-C, (iii)-D, (iv)-A (c) (i)-C, (ii)-D, (iii)-A (iv)-B **(d) (i)-D, (ii)-C, (iii)-B, (iv)-A**
- 36) An association of individuals of different species living in the same habitat and having functional interactions is
- (a) Population (b) Ecological niche **(c) Biotic community** (d) Ecosystem
- 37) If we uncover half of the forest covering the earth, what crisis will be produced at most and the first?
- (a) Some species will be extinct** (b) Population and ecological imbalance will rise up (c) Energy crisis will occur
(d) Rest half forests will maintain this imbalance

- 38) The upright pyramid of number is absent in
 (a) Pond (b) **forest** (c) lake (d) grassland
- 39) The rate of formation of new organic Matter by rabbit in a grassland is called
 (a) net productivity (b) **secondary productivity** (c) net Primary Productivity (d) gross Primary Productivity
- 40) The second stage of hydrosphere is occupied by plants like
 (a) Azolla (b) Typha (c) Salix (d) **Vallisneria**
- 41) Which one of the following is a characteristic feature of cropland ecosystem?
 (a) Ecological succession (b) Absence of soil organisms (c) **Least genetic diversity** (d) Absence of weeds
- 42) During ecological succession
 (a) The changes lead to a community that is in near equilibrium with the environment and is called a pioneer community.
 (b) **The gradual and predictable change in species composition occurs in a given area.**
 (c) The establishment of a new biotic community is very fast in its primary phase.
 (d) The number and types of animals remain constant.
- 43) Both hydrarch and xerarch successions lead to
 (a) Highly dry conditions (b) Excessive wet conditions (c) **Medium water conditions** (d) Xeroic conditions
- 44) The correct sequence of plants in a hydrosphere is
 (a) **Volvox → Hydrilla → Pistia → Scirpus → Lantana → Oak**
 (b) Pistia → Volvox → Scirpus → Hydrilla → Oak → Lantana
 (c) Oak → Lantana → Volvox → Hydrilla → Pistia → Scirpus
 (d) Oak → Lantana → Scirpus → Pistia → Hydrilla → Volvox
- 45) Consider the following statements concerning food chains
 i) Removal of 80% tigers from an area resulted in greatly increased growth of vegetation.
 ii) Removal of most of the carnivores resulted in an increased population of deers.
 iii) The length of food chains is generally limited to 3 - 4 trophic levels due to energy loss.
 iv) The length of food chains may vary from 2 to 8 trophic levels.
 Which two of the above statements are correct?
 (a) i and ii (b) **ii and iii** (c) iii and iv (d) i and iv
- 46) Which one of the following is not used for construction of ecological pyramids?
 (a) Dry weight (b) Number of individuals (c) Rate of energy flow (d) **Fresh weight**
- 47) The two important structural features of an ecosystem are
 (a) species composition & species diversity. (b) species density & diversity (c) **species composition & stratification**
 (d) species density & stratification.
- 48) Which one is correct statement?
 (a) **For the sustenance of an ecosystem a constant input of solar energy is the basic requirement**
 (b) The rate of production of organic matter during photosynthesis is called Net primary productivity.
 (c) The amount of energy left in producers after utilisation for respiration is called primary productivity.
 (d) The amount of energy available in producers for the consumption of carnivores is net primary productivity.
- 49) Which statement is not relevant to first law of thermodynamics?
 (a) **The flow of energy is bidirectional.** (b) The flow of energy is random
 (c) The flow of energy in a food chain is reversible. (d) The flow of energy in a food chain is unidirectional.

- 50) The wavelength of Photosynthetically Active Radiation lies between the range of :
- (a) 200 - 700 nm (b) 300 - 700 nm (c) 500 - 700 nm **(d) 400 - 700 nm**