

QB365 Question Bank Software Study Materials

Zoology - Organisms and Populations Important 2 Marks Questions With Answers (Book Back and Creative)

12th Standard

Biology

Total Marks : 40

2 Marks

20 x 2 = 40

1) What is a Habitat?

Answer : The natural home (or) environment of an animal, plant or other organism or it can be considered as the address of an organism

2) Define ecological niche.

Answer : Ecological niche is a term for the position of a species within an ecosystem, describing both the range of conditions necessary for persistence of species, and is ecological role in the ecosystem.

3) What is Acclimatisation?

Answer : 1. Animals are known to modify their response to environmental changes (stress) in reasonably short time of spans. This known as Acclimatisation.

2. This is observed when people who have moved from the plains to higher altitudes show enhanced RBC count within a few days of settling in their new habitat. This helps them cope with lower atmospheric oxygen and higher oxygen demand.

4) What is Pedogenesis?

Answer : Soil formation is called pedogenesis soil is formed from rocks which are the parent materials of soil, by weathering and is called embryonic soil (So soil is an edaphic factor).

5) What is soil permeability?

Answer : 1. The characteristic of soil that determines the movement of water through pore spaces is known as soil permeability.

2. Soil permeability is directly dependent on the pore size. Water holding capacity of the soil is inversely dependent on soil porosity.

6) Differentiate between Eurytherms and Stenotherms.

Answer :

STENOHALINE ANIMALS	EURYHALINE ANIMALS
The animals which show tolerance only to a narrow range of salinities.	The animals which, can tolerate a wide range of salinities
Their distributional range is limited.	Their distribution shows a wide range

7) Classify the aquatic biomes of Earth.

Answer : (i) Freshwater (Lakes, ponds, and rivers)

(ii) Brackish water (Estuaries and Wetlands)

(iii) Marine (Coral reefs, pelagic zones, and abyssal zones)

8) State Jordan's rule.

Answer : In some aquatic environments, an inverse relationship between water temperature and fish meristic characters is observed - lower the temperature, more the vertebrae.

9) What is Ethology?

Answer : Ethology is the scientific study of animal behaviour, under natural conditions.

10) Define biotic potential.

Answer : It is the maximum reproductive capacity of an organism under optimum environmental conditions.

11) Define carrying capacity.

Answer : The maximum number of organism that a region can support without environmental degradation is called carrying capacity.

12) State Van't Hoff's rule

Answer : Van't Hoff's rule states that with the increase of every 10°C, the rate of metabolic activity is doubled or the reaction rate is halved with the decrease of 10°C.

13) Snakes are stenotherms. Why?

Answer : Snakes are stenotherms since they can tolerate only a narrow range of temperature fluctuation.

14) Point out the major functions of soil.

Answer : Soil has four major functions-

- (i) medium for plant growth
- (ii) means for water storage and purification
- (iii) modifier of Earth's atmosphere
- (iv) habitat for many organisms, which in turn modify the soil

15) What is a forest? Name the major forest biomes.

Answer : Forest is a broad term used to describe areas where there are a large number of trees. The major forest biomes are the Tropical forests and the Temperate forests.

16) Camels are well adapted to xeric conditions, how?

Answer : Camels are able to regulate water effectively for evaporative cooling through the skin and respiratory system and excrete highly concentrated urine, and can also withstand dehydration up to 25% of their body weight.

17) Mention four adaptive features that help cacti survive in xeric environment.

- Answer :**
- (i) The leaves are reduced to spines and scales.
 - (ii) The stem is green, flattened, spongy and takes over the function of photosynthesis (Phyllocladode or cladophyll).
 - (iii) A thick cuticle prevents loss of water.
 - (iv) They have a special photosynthetic mechanism (CAM) that enables their stomata to remain closed during day and open during night.

18) Difference between predation and competition.

Answer :

Predation	Competition
(i) It is an interspecific where one animal called predator kills and consumes the other animals called prey,	(i) It is the type of interaction either among the individual of the same species or of different species, which compete for food or shelter,
(ii) One is benefitted and the other is harmed.	(ii) Both the partners are affected.

19) State Allen's rule and Bergmann's rule

Answer : Allen's rule: Warm blooded animals living in cold climates have shorter limbs, ears and other appendages than the same species in warm climates.

Bergmann's rule: Birds and mammals have larger body size in cold regions than warmer regions.

20) What are cryptic animals? How cryptic adaptation helps them?

Answer : Cryptic animals are those which camouflage perfectly with their environment and are almost impossible to detect. Certain reptiles and insects such as chameleons and stick insects show this type of adaptation, which helps in prey capture or to evade from predators.