



BIOLOGY

BOOKS - MBD BIOLOGY (ODIA ENGLISH)

ORGANISMS AND ENVIRONMENT

Question Bank

1. When the organisms live together in such a manner that one organism is benefited while

the other remains unaffected. This type of association is called:

A. commensalism

B. symbiosis

C. mutualism

D. parasitism

Answer: A



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2. Plants and animals living in a given area
from a:

A. biome

B. ecotone

C. biotic community

D. bioindicator

Answer: C



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3. The part of earth and atmosphere supporting life is :

A. biotic community

B. biome

C. ecotone

D. biosphere

Answer: D



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4. Which of the following is synecology?

- A. Study of same species
- B. study of different species
- C. Both of these
- D. none of these

Answer: B



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5. Term 'biocoenosis' was coined by:

A. Karl Mobius

B. Charles Darwin

C. E.P. Odum

D. E.Haeckel

Answer: D



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6. Number of immigration is more than emigration and death is lower than natality.

Growth curve of population will show

A. Exponential phase

B. Lag phase

C. Declining phase

D. Steady phase

Answer: A



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7. Which one of the following have raised cheek bones, oblique eyes and yellowish skin colour?

A. Negroids

B. Mongoloids

C. Polynesians

D. Caucasoids

Answer: B



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8. Scent producing glands are:

A. Anal glands

B. Adrenal glands

C. Bartholin's gland

D. Prostate gland

Answer: A



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9. Pheromone is:

A. Product of endocrine gland

B. A protein

C. mRNA

D. used for animal communication

Answer: D



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10. Percentage ratio of natality over mortality

is :

A. Population dynamics

B. Vital index

C. Population density

D. Total count

Answer: B



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11. Human population shows:

- A. J-shaped growth curve
- B. Z-shaped growth curve
- C. S-shaped growth curve
- D. All of the above

Answer: C



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12. The process of mating of individuals which are more closely related, than the average of the population to which they belong is called:

- A. inbreeding
- B. hybridization
- C. heterosis
- D. self-breeding

Answer: A



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13. Adaptation of a species is its:

A. ecdysis

B. metamorphosis

C. acquired character

D. hereditary character

Answer: D



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14. The abundance of a species in a population, within its habitat, is called:

- A. niche density
- B. absolute density
- C. relative density
- D. regional density

Answer: A



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15. Asymptote is a stage when a population is

A. stabilised

B. changing

C. increasing

D. decreasing

Answer: A



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16. Two species cannot occupy the same niche.

This law is known:

A. Wien Law

B. Gause Law

C. Allen Law

D. Competition exclusion Principle

Answer: B



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17. In which one of the following habitat, does the diurnal temperature of soil surface vary most?

A. Forest

B. Desert

C. Grassland

D. Shrub land

Answer: B



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18. Broad-leaved forest oak are found in:

- A. North coniferous forests
- B. Mediterranean evergreen forest
- C. Temperate deciduous forest
- D. Tropical deciduous forest

Answer: B



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19. Prolonged liberal irrigation of agricultural field likely to create the problem of:

A. Aridity

B. Acidity

C. Metal toxicity

D. Salinity

Answer: D



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20. At which latitude, heat gain through insolation approximately equals heat loss through terrestrial radiation?

A. 66° North and south

B. $42\frac{1}{2}^\circ$ North and South

C. $42\frac{1}{2}^\circ$ North and South

D. 40° North and South

Answer: C



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21. Animals have the innate ability to escape from predation. Examples for the same are given below. Select the incorrect examples:

A. Colour change in chameleon

B. Melanism in moths

C. Poison fangs in snakes

D. Enlargement of body size by swallowing
air in puffer fish

Answer: C



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22. There exists a close association between the alga and the fungus within a lichen. The fungus:

A. fixes the atmospheric nitrogen for the alga

B. provides protection, anchorage and absorption for the alga

C. releases oxygen for the alga

D. provides food for the alga

Answer: B



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23. Identify the correctly matched pair:

A. Montreal Protocol-Global warming

B. kyoto Protocol-Climatic change

C. Ramsar Convention-Ground water
pollution

D. Basel

convention-Biodiversity

conservation

Answer: B



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24. The ability of the venus fly trap to capture insects is due to :

A. specialized 'muscle-like' cells

B. chemical stimulation by the prey

C. a passive process requiring no special ability on the part of the plant

D. rapid turgor pressure changes

Answer: D



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25. Sunderban contains mainly:

A. mangroove plants

B. alpine trees

C. thick forest

D. grass

Answer: A



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26. Pneumatophores are present/common in:

A. xerophytes

B. hygrophytes

C. mesophytes

D. halophytes

Answer: D



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27. which one of the following correctly represents an organism and its ecological niche ?

A. Nepenthes and pond

B. desert locust (*Scistocerca*) and desert

C. plant lice (aphids) and leaf

D. vultures and dense forest

Answer: C



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28. Increased Humidity in atmosphere

decreases rate of:

A. transpiration

B. photosynthesis

C. glycolysis

D. growth

Answer: A



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29. Niche overlap indicates:

A. sharing of one or more resources
between the two species

B. mutualism between two species

C. active cooperation between two species

D. two different parasites on the same
host

Answer: A



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30. Annual migration does not occur in the
case of:

A. Salamander

B. Salmon

C. Arctic tern

D. siberian crane

Answer: A



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31. Geometric representation of age structure

is a characteristic of :

A. Population

B. Landscape

C. Ecosystem

D. Biotic community

Answer: A



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32. Population of an insect species increases explosively during rainy season and then disappears at the end of the season . It shows

:

- A. The food plants mature and die at the end of the rainy season
- B. Its population growth curve is of J-type
- C. The population of its predators increases enormously
- D. S-shaped or sigmoid growth of this insect

Answer: B



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33. which one of the following is categorised as a parasite in true sense?

A. The female Anopheles bites and sucks blood from humans

B. Human foetus developing inside the uterus draws nourishment from the mother

C. Head louse living on the human scalp as well as laying eggs on human hair

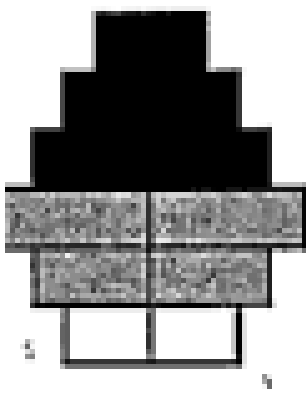
D. The cuckoo (koel) lays its eggs in crow's nest

Answer: C



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34. What type of human population is represented by the following age pyramid ?



Post-reproductive

Reproductive

Pre-reproductive

- A. Vanishing population
- B. Stable population
- C. Declining population
- D. Expanding population

Answer: C



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35. People who have migrated from the plains to an area adjoining Rohtang Pass about six months back:

A. are not physically fit to play games like football

B. suffer from altitude sickness with symptoms like nausea, fatigue, etc

C. have the usual RBC count but their haemoglobin has very high binding affinity to O_2

D. have more RBCs and their haemoglobin

has a lower binding affinity to O_2

Answer: D



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36. Fungal association of roots of higher plants in mycorrhiza is known as :

A. Parasitism

B. Hyperparasitism

C. Mutualism

D. Commensalism

Answer: C



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37. Hyperparasite is a kind of parasite which :

A. Kills its host

B. Complete life cycle in one host

C. Uses host machinery for reproduction

D. None of the above

Answer: D



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38. Plants obtaining nourishment from other plants by haustoria are:

A. Mesophytes

B. Parasites

C. Xerophytes

D. Halophytes

Answer: B



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39. A successful parasite is the one which:

A. Grows rapidly

B. Reproduces fast

C. Sticks to host for long

D. Makes minimum demands from its host

Answer: D



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40. Which of the following statement is correct regarding the two organisms in commensalism ?

A. No one is harmed

B. Both the partnes are harmed

C. One partner is benefited whether
another suffers

D. One partner is benefited and other remains unharmed

Answer: D



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41. Which is not characteristics of intestinal symbionts ?

A. Feeding on extra food to host

B. Providing vitamins to host

C. Anaerobic respiration

D. Aerobic respiration

Answer: D



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42. Ecological succession on sand is:

A. Psammosere

B. Xerosere

C. Halosere

D. Hydrosere

Answer: A



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43. Cause of mimicry is:

A. concealment

B. offence

C. defence

D. BOTH (B) AND (C)

Answer: A



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44. Which of the following insects mimics thin dry branches of the plant on which it lives ?

- A. *Kallima paralecta*
- B. *Mantis religion*
- C. *Phyllium frondosum*
- D. *Carauustus morosus*

Answer: B



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45. The individual that shows mimicry is called:

A. mimic

B. predator

C. prey

D. parasite

Answer: A



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46. Heterodon flattens its head, produces frequent hissing and strikes to advertise as if it is dangerous. This is an example of:

- A. alluring mimicry
- B. warning mimicry
- C. concealing mimicry
- D. batesian mimicry

Answer: B



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47. In conscious mimicry:

- A. the organisms behave as if they are dead bodies
- B. the organism become more conscious
- C. the organism catches its prey with a great ease
- D. None of the above

Answer: A



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48. Which of the following resembles a dry leaf ?

- A. Phyllium
- B. Kallima paralecta
- C. Cryptolithodes
- D. Papilio machaon

Answer: B



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49. July 11 is observed as:

- A. No tobacco day
- B. World health day
- C. World population day
- D. World environment day

Answer: D



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50. Which among the following is the primary function of mimicry prevalent in some animals ?

A. Warming

B. Concealment

C. Allurement

D. Aggression

Answer: B



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51. Succession in an ecosystem is the result of:

- A. Occurrence of diseases
- B. changes in grazing habits of animals
- C. competition among animals
- D. adaptive ability to environmental changes

Answer: D



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52. Mycorrhiza is an example of:

- A. Decomposers
- B. Endoparasitism
- C. Symbiotic relationship
- D. Ectoparasitism

Answer: C



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53. Two opposite forces operate in the growth and development of every population. One of them relates to the ability to reproduce at a given rate. The force opposing it is called:

A. Morbidity

B. Biotic potential

C. Fecundity

D. Environmental resistance

Answer: D



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54. Maximum growth rate occurs in :

- A. senescent phase
- B. Lag phase
- C. exponential phase
- D. stationary phase

Answer: C



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55. Lichens are well known combination of an alga and a fungus where fungus has:

- A. an epiphytic relationship with the alga
- B. a parasitic relationship with the alga
- C. a symbiotic relationship with the alga
- D. a saprophytic relationship with alga

Answer: C



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56. An ecosystem which can be easily damaged but can recover after some time if damaging effect stops will be having:

- A. high stability and low resistance
- B. low stability and low resistance
- C. low stability and low resistance
- D. low stability and high resistance

Answer: A



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57. A terrestrial animal must be able to:

- A. Actively pump salts out through the skin
- B. Excrete large amount of salts in urine
- C. Excrete large amount of water in urine
- D. Conserve water

Answer: D



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58. What is keystone species ?

A. A common species that has plenty of biomass, yet has a fairly low impact on the community's organisation.

B. A rare species that has minimal impact on the biomass and no other species in the community.

C. A dominant species that constitutes a large proportion of the biomass and

which effects many other species

D. A species which makes only a small proportion of the total biomass of a community, yet has a huge impact on community's organisation and survival

Answer: D



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59. The most thoroughly studies of the known bacteria-plant interaction is the:

A. Nodulation of Sesbammia stems by N_2

fixing bacteria

B. Plant growth stimulation by phosphate

solubilising bacteria

C. Cyanobacterial symbiosis with some

aquatic ferns

D. Gall formation on certain angiosperms

by Agrobacterium

Answer: D



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60. Term used to describe non-dominant species that dictate community structure is:

A. pioneer species

B. exogenous species

C. keystone species

D. transitional species

Answer: C



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61. In succession, complexities in structure:

A. drastically increase

B. slowly increase

C. does not increase

D. constant

Answer: B



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62. The presence of diversity at the junction of territories of two different habitats is known as:

A. bottle neck effect

B. edge

C. junction effect

D. pasteur effect

Answer: B



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63. Small fish gets stuck near the bottom of a shark and derive its nutrition from it. This kind of association is called as:

A. symbiosis

B. commensalism

C. predation

D. parasitism

Answer: B



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64. Praying mantis is a good example of:

A. social insects

B. camourflage

C. mullerian mimicry

D. warning colouration

Answer: B



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65. The formula for exponential population growth is :

A. $rN / dN = dt$

B. $dN / dt = rN$

$$C. dt.dN = rN$$

$$D. dN / rN = dt$$

Answer: B



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66. Match the following with correct combination:

Column I**Column II**

mutualism

1. tiger and deer

commensalism

2. *cuscuta* on *citrus*

parasitism

3. sucker fish and shark

predation

4. crab and sea anemone

A. a-1, b-2, c-3, d-4

B. a-4, b-3, c-2, d-1

C. a-1, b-3, c-2, d-4

D. a-2, b-3, c-1, d-4

Answer: B**Watch Video Solution**

67. Find out the correct order of succession levels in xerarch.

A. lichen moss stage, annual herb stage, perennial herb stage, scrub stage, forest

B. annual herb stage, perennial herb stage, lichen moss stage, scrub stage, forest

C. perennial herb stage, annual herb stage, lichen moss stage, scrub stage, forest

D. scrub stage, forest, annual herb stage,
perennial herb stage, lichen moss stage

Answer: A



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68. The concept of chemical evolution is based
on:

A. Interaction of water, air and clay under
intense heat

B. Effect of solar radiation of chemicals

C. Possible origin of life by combination of chemicals under suitable environmental conditions

D. Crystallization of chemicals

Answer: C



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69. If the mean and the median pertaining to a certain character of a population are of the same value, the following is most likely to occur:

- A. a bi-modal distribution
- B. a T-shaped curve
- C. a skewed curve
- D. a normal distribution

Answer: D



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70. The equation $\frac{\Delta N_n}{\Delta N}$ represents which of the following ?

A. natality

B. growth rate

C. mortality

D. All of these

Answer: B



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71. The change in population size at a given time interval t , is given by the expression

$$N_1 = N_0 + B + I - D - E, I, B \text{ and } D$$

stand respectively for:

A. rate of immigration, mortality rate,
natality rate

B. rate of emigration, natality rate,
mortality rate

C. mortality rate, natality rate, rate of immigration

D. rate of immigration, natality rate, mortality rate

Answer: D



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72. Which one of the following is considered as pioneer community in xerarch ?

- A. annual herb
- B. perennial herb
- C. scrub stage
- D. lichen

Answer: D



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73. Which one of the following statements is correct for secondary succession ?

- A. It begins on a bare rock
- B. It occurs on a deforested site
- C. It follows primary succession
- D. It is similar to primary succession except
that it has a relatively fast pace.

Answer: B



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74. A sedentary sea anemone gets attached to the shell lining of hermit crab. The association is:

- A. symbiosis
- B. commensalism
- C. amensalism
- D. ectoparasitism

Answer: B



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75. A biologist studied the population of rats in a barn . He found that the average natality was 250 , average mortality 240 , immigration 20 and emigration 30. The net increase in population is :

A. 15

B. 5

C. zero

D. 10

Answer: C



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76. Name the branch of ecology which deals with study of a single species.



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77. Which is the lowest level of ecological organisation ?



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78. Which is the highest level of ecological organisation ?



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79. What term is used for natural place of living of an organism ?



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80. What are ecological adaptation of succulents ?



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81. What term is used for birth rate ?



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82. In what type of ecological interaction both partners are benefited ?



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83. In what type of species interaction Species-A is benefited and Species-B is harmed ?



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84. In what type of species interaction Species-A is benefited and Species-B is unaffected ?



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85. In what type of species interaction Species-A and Species-B is neither benefited nor harmed ?



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86. ___ is a group of organisms of same species living in a particular area.



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87. Plants growing on saline soil are called_____.



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88. Plants growing on sand and gravel are called_____.



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89. Plants growing on acidic soil are called_____.



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90. The inherent maximum capacity of organism to reproduce in number is termed as _____.



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91. Ecotone is a species of local habitat.

A. True

B. False

C.

D.

Answer: Ecotype



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92. Community is a group of interbreeding natural population.

A. True

B. False

C.

D.

Answer: Species



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93. Mammals are cold blooded animals.

A. True

B. false

C.

D.

Answer: Warm blooded



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94. Corals are eurythermal animals.



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95. Biome is specific place in the habitat occupied by a species.



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96. What is Commensalism ? Give suitable examples.



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97. What is an ecological niche ?



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98. How is diapause different from hibernation ?



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99. If a marine fish is placed in a freshwater aquarium, will the fish be able to survive ? Why or why not ?



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100. Define phenotypic adaptation. Give one example.



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101. Most living organisms cannot survive at temperature above 45° C. How are some microbes able to live in habitats with temperature exceeding 100° C ?



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102. List the attributes that population but not individuals possess.



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103. If a population growing exponentially double in size in 3 years, what is the intrinsic rate of increase (r) of the population ?



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104. Name important defense mechanisms in plants against herbivory.



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105. An orchid plant is growing on the branch of mango tree. How do you describe this interaction between the orchid and the mango tree ?



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106. What is the ecological principle behind the biological control method of managing with pest insects ?



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107. Distinguish between Hibernation and Aestivation



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108. Distinguish between Ectotherm and Endotherm



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109. Write a short note on: Adaptations of desert plants and animals



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110. Write a short note on: Adaptations of plants to water scarcity.



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111. Write a short note on: Behavioural adaptations in animals.



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112. Write a short note on: Importance of light to plants.



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113. Write a short note on: Effect of temperature or water scarcity and the adaptations of animals.



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114. List various abiotic environmental factors.



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115. Give an example of an endothermic animal



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116. Give an example of an ectothermic animal



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117. Give an example of an organism of benthic zone



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118. Define population and community.



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119. Define the following terms and give one example for Commensalism



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120. Define the following terms and give one example for Parasitism



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121. Define the following terms and give one example for Camouflage



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122. Define the following terms and give one example for Mutualism



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123. Define the following terms and give one example for Interspecific competition



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124. With the help of suitable diagram describe the logistic population growth curve.



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125. Select the statement which explains best parasitism.

A. One Organism is benefited

B. Both the organisms are benefited

C. one organism is benefited , other is not affected

D. One Organism is benefited, other is affected

Answer:



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126. List any three important characteristics of a population and explain.



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