



BIOLOGY

BOOKS - CHETANA PUBLICATION

Organisms and Populations

Example

1. Define the following:

Ecosystem



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2. Define the following:

Ecology



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3. Define Population and Community.



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4. Define Population and Community.



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5. Define Biotechnology.



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6. What are the abiotic and biotic components of an ecosystem?



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7. Define the following:

Habitat



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8. Define Pitch



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9. Write differences between Habitat and

Niche



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10. Explain different types of niche



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11. What is fundamental niche?



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12. What is realized niche?



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13. Define: Eurythermal Organisms.



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14. Define: Stenothermal Organism



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15. Give the name of eurythermal and stenothermal animals and plants?



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16. What will be the effect of increasing global temperature on different habitats and the organisms found in those habitats?



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17. Define: Euryhaline



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18. Define: Stenohaline



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19. Give examples of an anJMDI and plant that can survive in fresh water as well as marine water.



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20. What is the source of energy for the life in deep ocean trenches where sunlight does not reach?



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21. Which characteristics of soil determine the vegetation of that particular area?



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22. What is homeostasis?



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23. What are regulators? Give examples.



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24. What are conformers? Give examples.



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25. Adaptation of animals for aquatic and desert habitat.



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26. Adaptation of animals for aquatic and desert habitat.



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27. What is homeostasis?



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28. Why do animals need to maintain homeostasis?



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29. What are the adaptations in animals living under crushing pressure at great depths of

ocean?



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30. How is the dormancy of seeds different from hibernation in animals?



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31. If a marine fish is placed in a fresh water aquarium, will it be able to survive?



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32. Find out the difference between hibernation and aestivation.



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33. Distinguish between the following:

Ectotherms and Endotherms



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34. Define Thermophiles.



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35. Define adaptation



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36. Adaptation of plants for aquatic and desert habitats.



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37. Write a short note on Adoption.



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38. How do animals manage to survive in colder climate?



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39. "Write a note on Allen's rule".



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40. Write a short note on

Adaptations of desert animals



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41. Write a short note on

Adaptations of plants to water scarcity



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42. Write a short note on

Behavioural adaptations in anJMDIs



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43. Which of the following reacts with water with high rate ?



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44. Which of the following reacts with water with high rate ?



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45. Write definitions of the following: Absolute Natality



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46. Write definitions of the following: Realized
Natality



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47. Write definitions of the following: Absolute
Mortality



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48. Write definitions of the following: Realized Mortality



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49. Write definitions of the following: Sex ratio



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50. Write definitions of the following:
Migration



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51. Write definitions of the following: Carrying capacity



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52. Write definitions of the following:
Population Density



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53. Write definitions of the following:

Population Growth



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54. Write definitions of the following: Age distribution



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55. How is population density calculated?





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56. Does population growth remain constant for any population?



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57. Explain the exponential rate law expression for the first order reaction.



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58. What will happen when carrying capacity of any habitat is exceeds ?



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59. What could be the reason behind enormous increase in human population?



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60. What are the different kinds of population with regards to age distribution?



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61. Enlist and explain the important characteristics of a population.



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



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63. Define the following: Competition



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64. Define the following: Mutualism



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65. Define the following: Commensalism



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66. Define the following: Parasitism



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67. Define the following: Amensalism



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68. Define the following: Predation



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69. Define the following: Proto-cooperation



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70. Define the following: Neutralism



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71. Define the following terms :

Commensalism



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72. Define the following: Parasitism



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73. Give one example for each :

Mutualism



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74. What are the various types of Buffer solution? Give one example of each.



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75. Name the type of association



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76. What is the ecological processes behind the biological control method of managing

pest insects?



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



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78. Write a note on "different interspecific interactions".



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79. Explain different types of niche



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80. Give one example for each :

Interspecific competition



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81. What is Gause's Competitive Exclusion Principle?



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82. What is the meaning of "resource partitioning in interspecific competition?"



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83. What is the role of predators in nature?



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84. Give reason "Predators are prudent in nature".



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85. Name the invasive species of plants and anJMDIs in India.





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86. Distinguish between the following:

Parasitism and Mutualism



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87. Write difference between Mutualism and Competition.



[Watch Video Solution](#)

88. Define the following terms :

Commensalism



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89. Give one example for each :

Mutualism



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90. Explain pyrolysis with example .



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91. What is a parasite? Explain the types of parasite with example.



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92. Endoparasites are found inside the host body. Mention the special structures, possessed by these and which enables them to survive in those conditions.



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93. What are different defense mechanisms developed by prey species to reduce predation?



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94. Name important defense mechanisms in plants against herbivores.



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Exercise

1. Which factor of an ecosystem includes plants, animals and microorganisms?

A. Biotic factor

B. Abiotic factor

C. Direct factor

D. Indirect factor

Answer:



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2. An assemblage of individuals of different species living in the same habitat and having functional interaction is.....

A. Biotic community

B. Ecological niche

C. Population

D. Ecosystem

Answer:



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3. Association between sea anemone and Hermit crab in gastropod shell is that of....

- A. Mutualism
- B. Commensalism
- C. Parasitism
- D. Amensalism

Answer:



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4. Select the statement which explain best parasitism.

A. One species is benefitted

B. Both species are benefitted

C. One species is benefitted, other is not affected

D. One species is benefitted, other is harmed.

Answer:



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5. Growth of bacteria in a newly inoculated agar plate shows.....

- A. Exponential growth
- B. Logistic growth
- C. Verhulst pearl logistic growth
- D. Zero growth

Answer:



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6. The study of interrelationship between organisms and their environment is called.

A. Ecosystem

B. Biome

C. Ecology

D. Ecology community

Answer:



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7. Environmental factor that determine existences of an organisms is called _____

A. Niche

B. H habitat

C. Adaptation

D. Community

Answer:



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8. Habitat together with functions of species constitute its_____

A. Trophic level

B. Boundary

C. Topography

D. Niche

Answer:



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9. Physical space occupied by the organisms is called _____

- A. Spatial Niche
- B. Trophic Niche
- C. Multidimensional Niche
- D. Hypervolume Niche

Answer:



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10. Position of the organisms in the environmental gradient is called _____

- A. Habitat Niche
- B. Spatial Niche
- C. Trophic Niche
- D. Hypervolume Niche

Answer:



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11. Two species cannot occupy same niche. The law is _____

A. Allen's law

B. Gause's law

C. Wein's law

D. Competiton exclusion Principle

Answer:



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12. Individual on one species occupying a particular geographical area at a given time form_____

A. Community

B. Population

C. Species

D. Biome

Answer:



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13. Community is defined as _____

- A. Group of Niche
- B. Collection of species
- C. Interaction Population
- D. Interacting ecosystem

Answer:



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14. Which of the following is an indirect ecological factor?

A. Temperature

B. Soil Structure

C. Light

D. Air

Answer:



15. Biotic factors are _____

- A. Chemical factors of soil which affect life
- B. Physical factors of soil which affect life
- C. All living organisms which influence other organisms
- D. Factors of atmosphere which affect life

Answer:



16. Praying mantis is good example of _____

- A. Camouflage
- B. Warning coloration
- C. Social insect
- D. Mullerian mimicry

Answer:



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17. A bird enters in the mouth of crocodile and feed on parasitic leeches. The bird gets food and crocodiles get rid of parasites sucking blood. Both partners live independently. Such an association is called _____

- A. Mutualism
- B. Amensalism
- C. Commensalism
- D. Proto-cooperation

Answer:





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18. If stronger partner is benefited and the weak partner is harmed is called

A. Amensalism

B. Symbiosis

C. Predation

D. Allotrophy

Answer:



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19. Interaction between two organisms of different species in which one organism inhibits the growth of other organism is called _____

- A. Commensalism
- B. Amensalism
- C. Mutualism
- D. Proto-cooperation

Answer:



20. An interspecific interaction in which no species is either harmed or benefitted is called

- A. Positive interaction
- B. Negative interaction
- C. Antagonistic interaction
- D. Neutral interaction

Answer:



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21. Increase in population per unit time is called_____

A. Population growth

B. Population dynamics

C. Population ratio

D. Population density

Answer:



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22. Population growth of country depends upon _____

- A. Natality + emigration
- B. Natality + immigration
- C. Mortality + immigration
- D. Mortality + emigration

Answer:



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23. Population having large number of post reproductive and small number of pre reproductive age group is called.

A. Growing population

B. Steady population

C. Declining population

D. Reproductive isolation

Answer:



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24. When number of births equals to number of deaths, it is _____

- A. Plateaus stage
- B. Exponential stage
- C. Early growth stage
- D. Acceleration stage

Answer:



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25. Carrying capacity of the environment is represented by _____

A. S-

B. K

C. J

D. S

Answer:



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26. Maximum growth rate occurs in _____

- A. Lag Phase
- B. Exponential Phase
- C. Stationary phase
- D. Senescent Phase

Answer:



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27. In India, human population is heavily weighed towards the younger age group as a result of _____

- A. Long life span and low birth rate
- B. Short life span and high birth rate
- C. Long life span and high birth rate
- D. Short life span and low birth rate

Answer:



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28. Which of the following is a right matching pair of certain organism and the kind of association?

A. Amensalism- Shark and sucker fish

B. Mutualism- Algae and fungi in lichens

C. Parasitism-Orchids growing on trees

D. Epiphytism-Cuscuta growing on
flowering plant

Answer:





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29. Verhulst-pearl growth curve is _____

- A. Sigmoid curve
- B. Exponential curve
- C. Geometric curve
- D. Arithmetic curve

Answer:



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30. J-shaped growth curve has _____

- A. Lag and exponential phases
- B. Lag and stationary phases
- C. Exponential and stationary phases
- D. Lag, exponential and stationary phases

Answer:



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31. _____competition has the potential to alter populations, communities and the evolution of interacting species.

A. Intra-specific

B. Inter-specific

C. Exploitation

D. Apparent

Answer:



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32. An example of Parasitism interaction is the transmission of malaria causing protozan Plasmodium is an _____ while anopheles mosquito is _____ respectively.

- A. Prey, Predator
- B. Parasite, Vector
- C. Vector, Parasite
- D. Insect, Alga

Answer:



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33. If the stronger partner is benefited and the weak partner is damaged, it is known as _____

A. Amensalism

B. Symbiosis

C. Predation

D. Parasitism

Answer:



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34. Amensalism is a kind of _____ interaction.

- A. Positive inter-specific
- B. Negative intra-specific
- C. Positive intra-specific
- D. Negative inter-specific

Answer:



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35. Two species cannot occupy same niche. The law is _____

A. Wien's law

B. Gause's law

C. Allen's law

D. Competition exclusion principle

Answer:



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36. Position of the organisms in the environmental gradient is called _____

A. Habitat

B. Spatial Niche

C. Trophic Niche

D. Hypervolume Niche

Answer:



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37. Define: Euryhaline



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38. Define the term colligative property. Give examples.



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39. Name the type of association that exist between cattle egrets and cattle.



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40. Which type of population growth is shown by Denmark and Italy?



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41. Distinguish between Mutualism and Commensalism.



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42. Explain mutualism found in a plant-animal relationship by giving examples.



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43. What could be the reason behind enormous increase in human population?



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44. Define Population and Community.



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45. Explain types of parasitism giving one example of each. Add a note on Brood parasitism.



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46. Explain three key abiotic factors that influence any habitat.



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47. Enlist and explain the important characteristics of a population.



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48. What would be the growth pattern, when the resources are unlimited?



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