BIOLOGY

BOOKS - KUMAR PRAKASHAN KENDRA

BIOLOGY (GUJRATI ENGLISH)

ORGANISMS AND POPULATIONS

Section A Exam Oriented Questions Answers From Darpan

1. Explain how ecology is related to an organism?

View Text Solution

2. What is the basis of variations in the physical and chemical conditions of different habitats ?

View Text Solution

3. Explain in detail various abiotic factors which affect the habitat of the organisms?

View Text Solution

4. How do organisms living in different habitat manage with stressful conditions ?

View Text Solution

5. Explain about adaptation in detail.

View Text Solution

6. Explain characteristics of population.

View Text Solution

7. What are the factors affecting population growth ?

View Text Solution

8. What is meant by growth models ?

View Text Solution

9. Explain logistic growth .

View Text Solution

10. What is Darwinian fitness ?

View Text Solution

11. Explain the general information about the population interaction and show the various results shown between them.

View Text Solution

12. Explain predation in detail.

View Text Solution

13. Explain parasitism in detail.

View Text Solution

14. Explain competition in detail.

View Text Solution

15. Explain Gause's competitive exclusion principle.

View Text Solution

16. Describe commensalism

View Text Solution

17. Describe mutualism in detail.

View Text Solution

18. Explain sexual deceit.

View Text Solution

Section B Difference Scientific Reasons

1. Give differences

Commensalism and Mutualism .

View Text Solution

2. Give differences

Heliophytes and Sciophytes.

View Text Solution

3. Give differences

S - shaped and J - shaped growth curve.

View Text Solution

4. Give differences

Natality rate and Mortality rate.

View Text Solution

5. Give differences

Immigration and Emigration.

View Text Solution

6. Give scientific reasons

Coral reefs not found in the regions from west Bengal to Andhra Pradesh but are found in Tamil Nadu and on the east Coast of India.

View Text Solution

7. Give scientific reasons

Majority of fresh water organisms have

contractile vacuoles while marine organisms lack them.

View Text Solution

8. Give scientific reasons

Clown fish and sea anemone pairs up.

View Text Solution

9. Give scientific reasons

The thermoregulation more effectively

achieved in larger animals than in smaller ones.

View Text Solution

10. Give scientific reasons

Decomposer essential in nature

View Text Solution

11. Give scientific reasons

The members of a population do not breed

with other population.

View Text Solution

Section C Objective Questions Answers

1. Match the columns

Column - I		Column - II	
(a)	Cacti	(i)	Leguminous plants
(b)	Shade loving plants	(ii)	Commensalism
(c)	Halophytes	(iii)	Pioneer community
(d)	Crustose lichen	(iv)	Plants growing in saline environment
(e)	Interspecific Interaction	(v)	Xerophytes
(f)	Rhizobium	(vi)	Sciophytes

View Text Solution

2. Match the columns

Column - I		Column - II	
(a)	Mutualism	(i)	Tiger and deer
(b)	Commensalism	(ii)	Cuscuta and Acacia
(c)	Parasitism	(iii)	Sucker fish and shark
(d)	Predation	(iv)	Crab and sea anemone

View Text Solution

3. Match the columns

Column - I		Column - II	
(a)	Bears	(i)	Diapause
(b)	Snails	(ii)	Hibernation
(c)	Zooplanktons	(iii)	Dormancy
(d)	Seeds	(iv)	Aestivation

View Text Solution

4. Match the columns

Column - I		Column - II	
(a)	Predation	(i)	Cuscuta and hedge plant
(b)	Commensalism	(ii)	Balanus and Chathamalus
(c)	Parasitism	(iii)	Cactus and Moth
(d)	Competition	(iv)	Orchid and Mango

View Text Solution

5. Match the columns

Column - I		Column - II	
(a)	Camouflage	(i)	Dendrobatespumilio
(b)	Batesian mimicry	(ii)	Horse- shoe bat
(c)	Warning mimicry	(iii)	Monarch butterfly
(d)	Echo -location	(iv)	Praying Mantis

View Text Solution

6. Definitions/Explanation

Aestivation

View Text Solution

7. Definitions/Explanation

Age composition

View Text Solution

8. Definitions/Explanation

Census

View Text Solution

9. Definitions/Explanation

Ecological niche

View Text Solution

10. Definitions/Explanation

Ecotype

View Text Solution

11. Definitions/Explanation

Key stone species

View Text Solution

12. Definitions/Explanation

Climate

View Text Solution

13. Definitions/Explanation

Sciophytes

View Text Solution

14. Definitions/Explanation

Stenothermals

View Text Solution

15. Definitions/Explanation

Xerophytes

View Text Solution

Section D Textual Exercise

1. How is diapause different from hibernation?

View Text Solution

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

View Text Solution

3. How are some microbes able to live in habitats with temperatures exceeding $100^{\circ} C$?

View Text Solution

4. List the attributes that populations possess but not individuals.

View Text Solution

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

View Text Solution

6. Name important defence mechanisms in plants against herbivory.

View Text Solution

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

View Text Solution

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

View Text Solution

9. Distinguish between the following:

(a) Hibernation and Aestivation

(b) Ectotherms and Endotherms

View Text Solution

10. Write a short note on

(a) Adaptations of desert plants and animals

(b) Adaptations of plants to water scarcity

(c) Behavioural adaptations in animals

(d) Importance of light to plants

(e) Effect of temperature or water scarcity and the adaptations of animals.

View Text Solution

11. List the various abiotic environmental factors.

View Text Solution

12. Give an example for :

(a) An endothermic animal

(b) An ectothermic animal

(c) An organism of benthic zone

View Text Solution

13. Define population and community.

View Text Solution

14. Define the following terms and give one example for each :

(a) Commensalism (b) Parasitism

(c) Camouflage (d) Mutualism

(e) Interspecific competition

View Text Solution

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

View Text Solution

16. 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: D

View Text Solution

17. List any three important characteristics of a population and explain :

View Text Solution

Section E Solution Of Ncert Exemplar Multiple Choice Questions

1. Autecology is the

A. Relation of heterogenous populations to its environment

B. Relation of an individual to its environment

C. Relation of a community to its environment

D. Relation of a biome to its environment

Answer: B

View Text Solution

2. Ecotone is

A. A polluted area

B. The bottom of a lake

C. A zone of transition between two communities

D. A zone of developing community

Answer: C

View Text Solution

3. Biosphere is

A. a component in the ecosystem

B. composed of the plants present in the soil

C. life in the outer space

D. composed of all living organisms present on earth which interact with the physical environment

Answer: D

View Text Solution

4. Ecological niche is

A. the surface area of the ocean

B. an ecologically adapted zone

C. the physical position and functional role of a species within the community

D. formed of all plants and animals living at the bottom of a lake

Answer: C

View Text Solution

5. According to Allen's Rule, the mammals from colder climates have

A. shorter ears and longer limbs

B. longer ears and shorter limbs

C. longer ears and longer limbs

D. shorter ears and shorter limbs

Answer: D

View Text Solution

6. Salt concentration (Salinity) of the sea measured in parts per thousand is

A. $10 - 15$

B. 30 - 70

C. 0 - 5

D. 30 - 35

Answer: D

View Text Solution

7. Formation of tropical forests needs mean annual temperature and mean annual precipitation as

A. $18 - 25^{\circ}C$ and $150 - 400cm$

B. $5 - 15^{\circ}C$ and $50 - 100cm$

C. $30 - 50^{\circ}C$ and $100 - 150cm$

D. $5 - 15^{\circ}C$ and $100 - 200cm$

Answer: A

View Text Solution

8. Which of the following forest plants controls the light conditions at the ground ?

A. Lianas and climbers

B. Shrubs

C. Tall trees

D. Herbs

Answer: C

View Text Solution

9. What will happen to a well growing herbaceous plant in the forest if it is transplanted outside the forest in a park?

A. It will grow normally

B. It will grow well because it is planted in the same locality

C. It may not survive because of change in its micro climate

D. It grows very well because the plant gets more sunlight

Answer: C

View Text Solution

10. If a population of 50 Paramoecium present in a pool increases to 150 after an hour, what would be the growth rate of population ?

A. 50 per hour

B. 200 per hour

C. 5 per hour

D. 100 per hour

Answer: D

View Text Solution

11. What would be the per cent growth or birth rate per individual per hour for the same population mentioned in the previous question ?

A. 100

B. 200

C. 50

D. 150

Answer: B

View Text Solution

12. A population has more young individuals compared to the older individuals. What would be the status of the population after some years?

A. It will decline

B. It will stabilise

C. It will increase

D. It will first decline and then stabilise

Answer: C

View Text Solution

13. What parameters are used for tiger census in our country's national parks and sanctuaries?

A. Pug marks only

B. Pug marks and faecal pellets

C. Faecal pellets only

D. Actual head counts

Answer: B

View Text Solution

14. Which of the following would necessarily decrease the density of a population in a given habitat?

A. Natality gt mortality

B. Immigration gt emigration

C. Mortality and emigration

D. Natality and immigration

Answer: C

View Text Solution

15. A protozoan reproduces by binary fission. What will be the number of protozoans in its population after six generations?

A. 128

B. 24

C. 64

D. 32

Answer: C

View Text Solution

16. In 2005, for each of the 14 million people present in a country, 0.028 were born and 0.008 died during the year, Using exponential

equation, the number of people present in 2015 is predicted as

A. 25 millions

B. 17 millions

C. 20 millions

D. 18 millions

Answer: B

View Text Solution

17. Amensalism is an association between two species where

A. one species is harmed and other is benefitted

B. one species is harmed and other is unaffected

C. one species is benefitted and other is unaffected

D. both the species are harmed.

Answer: B

View Text Solution

18. Lichens are association of

A. bacteria and fungus

B. alga and bacterium

C. fungus and alga

D. fungus and virus

Answer: C

View Text Solution

19. Which of the following is a partial root parasite ?

A. Sandal wood

B. Mistletoe

C. Orobanche

D. Ganoderma

Answer: A

View Text Solution

20. Which one of the following organisms reproduces sexually only once in its life time?

A. Banana

B. Mango

C. Tomato

D. Eucalyptus

Answer: A

View Text Solution

Section E Solution Of Ncert Exemplar Very Short Answer Type Questions

1. Species that can tolerate narrow range of temperature are called .....

View Text Solution

2. What are Eurythermic species?

View Text Solution

3. Species that can tolerate wide range of salinityare called .....

View Text Solution

4. Define stenohaline species.

View Text Solution

5. What is the interaction between two species called ?

View Text Solution

6. What is commensalism?

View Text Solution

7. Name the association in which one species produces poisonous substance or a change in environmental conditions that is harmful to another species.

View Text Solution

8. What is Mycorrhiza ?

View Text Solution

9. Emergent land plants that can tolerate the salinities of the sea are called.

View Text Solution

10. Why do high altitude areas have brighter sunlight and lower temperatures as compared to the plains ?

View Text Solution

11. What is homeostasis ?

View Text Solution

12. Define aestivation.

View Text Solution

13. What is diapause and its significance ?

View Text Solution

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

View Text Solution

15. What are the organisms that feed on plant sap and other plant parts called ?

View Text Solution

16. What is high altitude sickness ? Write its symptoms.

View Text Solution

17. Give a suitable example for commensalism.

View Text Solution

18. Define ectoparasite and endoparasite and give suitable examples.

View Text Solution

19. What is brood parasitism? Explain with the help of an example.

View Text Solution

Section E Solution Of Ncert Exemplar Short Answer Type Questions

1. Why are coral reefs not found in the regions from West Bengal to Andhra Pradesh but are found in Tamil Nadu and on the east coast of India ?

View Text Solution

2. If a fresh water fish is placed in an aquarium containing sea water, will the fish be able to

survive ? Explain giving reasons.

View Text Solution

3. Why do all the fresh water organisms have contractile vacuoles whereas majority of marine organisms lack them?

View Text Solution

4. Define heliophytes and sciophytes. Name a plant from your locality that is either

heliophyte or sciophyte.

View Text Solution

5. Why do submerged plants receive weaker - illumination than exposed floating plants in al lake?

View Text Solution

6. In a sea shore, the benthic animals live in sandy, muddy and rocky substrata and

accordingly developed the following adaptations.

(a) Burrowing (b) Building cubes

(C) Holdfasts / peduncle

Find the suitable substratum against each adaptation.

View Text Solution

7. Categorise the following plants into hydrophytes, halophytes, mesophytes and xerophytes. Give reasons for your answers.

(a) Salvinia (b) Opuntia

(c) Rhizophora (d) Mangifera

View Text Solution

8. In a pond, we see plants which are free-floating rooted - submerged, rooted emergent, rooted with floating leaves. Write the type of plants against each of them.

Plant Name	Type
(a) Hydrilla	.....
(b) Typha	..... .
(c) Nymphaea	..... .
(d) Lemna	.....
(e) Vallisnaria	.....

View Text Solution

9. The density of a population in a habitat per unit area is measured in different units. Write the unit of measurement against the following

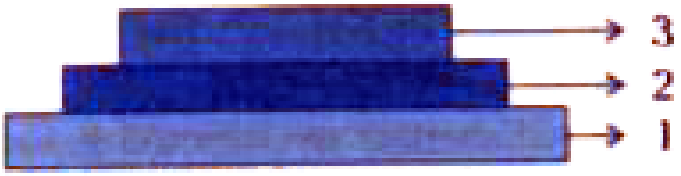
(a) Bacteria.....

(b) Banyan .....

(c) Deer .....

(d) Fish .....

View Text Solution

10. 

(a) Label the three tiers 1, 2, 3 given in the above age pyramid.

(b) What type of population growth is represented by the above age pyramid ?

View Text Solution

11. In an association of two animal species, one is a termite which feeds on wood and the other is a protozoan Trichonympha present in

the gut of the termite. What type of association they establish?

View Text Solution

12. Lianas are vascular plants rooted in the ground and maintain erectness of their stem by making use of other trees for support. They do not maintain direct relation with those trees. Discuss the type of association the lianas have with the trees.

View Text Solution

13. Give the scientific names of any two microorganisms inhabiting the human intestine,

View Text Solution

14. What is a tree line?

View Text Solution

15. Define 'zero population growth rate'. Draw a age pyramid for the same.

View Text Solution

16. List any four characters that are employed in human population census.

View Text Solution

17. Give one example for each of the following types.

(a) Migratory animal

(b) Camouflaged animal

(c) Predator animal

(d) Biological control agent

(e) Phytophagous animal

(f) Chemical defense agent

View Text Solution

18. Fill in the blanks

Species A	Species B	Type of Interaction	Example
+	–	(a)	(b)
+	+	(c)	(d)
+	(e)	Commensalism	(f)

View Text Solution

19. Observe the set of 4 figures A, B, C and D and, answer the following questions

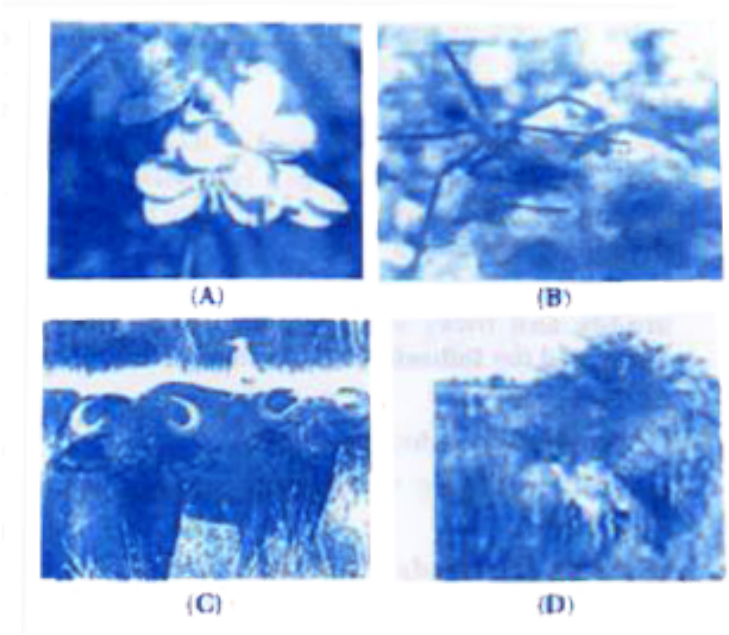
(i) Which one of the figures shows mutualism ?

(ii) What kind of association is shown in D?

(iii) Name the organisms and the association

in C.

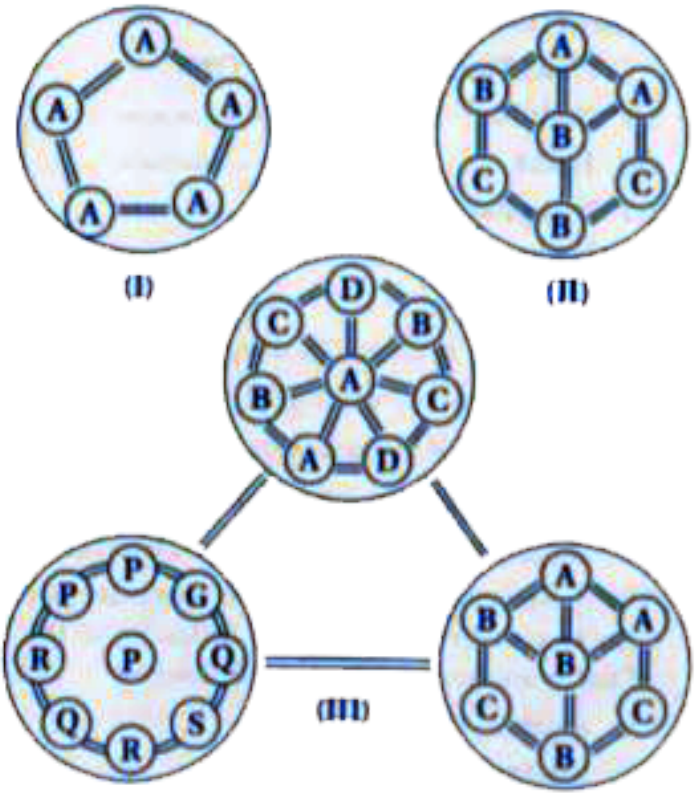
(iv) What role is the insect performing in B ?



View Text Solution

Section E Solution Of Ncert Exemplar Long Answer Type Questions

1. Comment on the following figures: 1, 2 and 3: A, B, C, D, G, P, Q, R, S are species

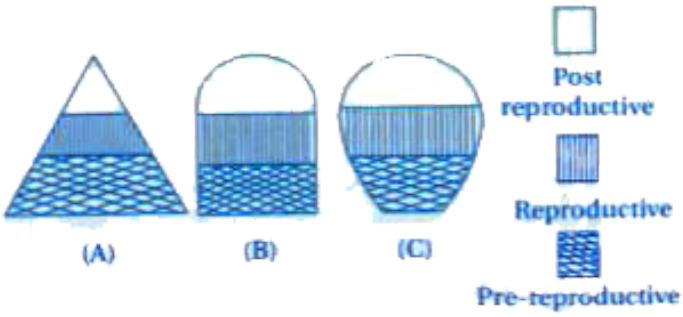


View Text Solution

2. An individual and a population has certain characteristics. Name these attributes with definitions.

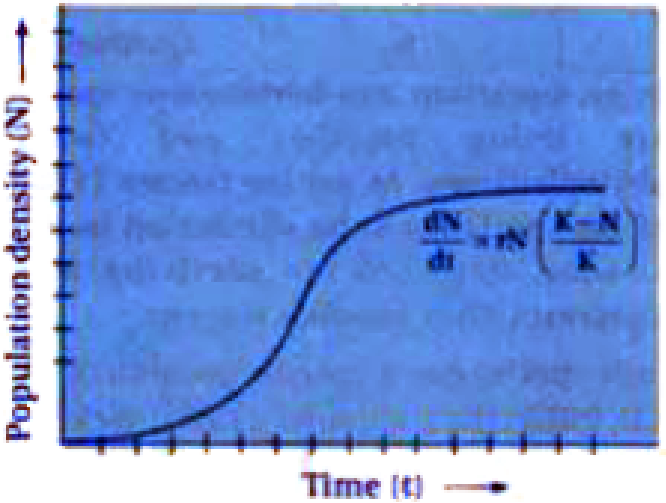
View Text Solution

3. The following diagrams are the age pyramids of different populations. Comment on the status of these populations.



View Text Solution

4. Comment on the growth curve given below.



View Text Solution

5. Discuss the various types of positive interactions between species.

View Text Solution

6. In an aquarium two herbivorous species of fish are living together and feeding on phytoplanktons. As per the Gause's Principle, one of the species is to be eliminated in due course of time, but both are surviving well in the aquarium. Give possible reasons.

View Text Solution

7. While living in and on the host species, the animal parasite has evolved certain adaptations. Describe these adaptations with examples.

View Text Solution

8. Do you agree that regional and local variations exist within each biome ?

Substantiate your answer with suitable example.

View Text Solution

9. Which element is responsible for causing soil salinity ? At what concentration does the soil become saline ?

View Text Solution

10. Does light factor affect the distribution of organisms ? Write a brief note giving suitable examples of either plants or animals.

View Text Solution

11. Give one example for each of the following:

(i) Eurythermal plant species .....

(ii) A hot water spring organism.....

(iii) An organism seen in deep ocean trenches .....

(iv) An organism seen in compost pit .....

(v) A parasitic angiosperm .....

(vi) A stenothermal plant species .....

(vii) Soil organism .....

(viii) A benthic animal .....

(ix) Antifreeze compound seen in antarctic fish.....

(x) An organism which can conform..... .

View Text Solution

Section F Multiple Choice Questions Mcqs From Darpan Based On Textbook

1. A plant surviving for few days

A. Annual

B. Ephermeral

C. Biennial

D. Perennial

Answer: B

View Text Solution

Section F Multiple Choice Questions Mcqs From Darpan Based On Textbook

1. The maximum growth rate occurs

A. stationary phase

B. Senescent phase

C. Lag phase

D. Exponential phase

Answer: D

View Text Solution

2. Sunken stomata occurs in

A. Xerophytes

B. Hydrophytes

C. Mesophytes

D. Opsanophytes

Answer: A

View Text Solution

3. If in a population, natality is balanced by mortality, then there will be

A. decrease in population growth

B. zero population growth

C. Increase in population growth

D. over population

Answer: B

View Text Solution

4. Root cap is absent in

A. Xerophytes

B. Hydrophytes

C. Mesophytes

D. Halophytes

Answer: B

View Text Solution

5. Genetic drift operates in

A. Large isolated population

B. Fast reproductive population

C. Small isolated population

D. Slow reproductive population

Answer: C

View Text Solution

6. In cold climate, the animals have short tail, shorter limbs and ears, this is called

A. Allen's Law

B. Bergman's

C. Cope's Law

D. Jordan's law

Answer: A

View Text Solution

7. Who coined the term Ecology ?

A. Odum

B. Ernest Haeckel

C. Arthur Tansley

D. Darwin

Answer: B

View Text Solution

8. Shade loving plants are

A. Heliophytes

B. Sciophytes

C. Hydophytes

D. Xerophytes

Answer: B

View Text Solution

9. Niche of a species is

A. Place of living

B. Specific function and competitive power

C. Habitat and specific function

D. None of these

Answer: C

View Text Solution

10. Ability to produce maximum offsprings is

A. Biotic potential

B. Carrying capacity

C. Environmental resistance

D. None of these

Answer: A

View Text Solution

11. In asymptote state, population is

A. Increasing

B. Decreasing

C. Changing

D. Stabilised

Answer: D

View Text Solution

12. When the number of immigration and births is more than emigration and deaths. Growth curve of population will show

A. Exponential phase

B. Lag phase

C. Declining phase

D. Steady phase

Answer: A

View Text Solution

13. Average ratio of men and women in human population is

A. $3:4$

B. $1:1$

C. $3:5$

D. $1:2$

Answer: B

View Text Solution

14. Competition of species leads to

A. Extinction

B. Mutation

C. Greater number of niches

D. Symbiosis

Answer: A

View Text Solution

15. Which is not true for species ?

A. Members of a species can interbreed.

B. Gene flow does not occur between population of same species.

C. A species is reproductively isolated from other species.

D. Variations occur among members of a species.

Answer: B

View Text Solution

16. Which one represents correct match between organism and its ecological niche

A. Vallisneria and pond

B. Desert locust and desert

C. Vultures and dense forest

D. Plant lice and leaf

Answer: D

View Text Solution

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

A. 10

B. 15

C. 05

D. zero

Answer: D

View Text Solution

18. Most animals are tree dwellers in a:

A. Coniferous forest

B. Thorn woodland

C. Temperate deciduous forest

D. Tropical rain forest

Answer: D

View Text Solution

19. Ecology is concerned with how many levels of biological organizations?

A. 3

B. 4

C. 7

D. 5

Answer: B

View Text Solution

20. The levels of biological organization in ecology are

A. cell, organism, community, biosphere

B. organism, family, community, biome

C. species, population, community biome

D. organism, population, community, biome

Answer: D

View Text Solution

21. How does seasonal variation takes place on Earth ?

A. Rotation on its own axis

B. Rotation around sun

C. Rotation of moon around earth

D. Both(A) and (B)

Answer: D

View Text Solution

22. Precipitation due to annual variation in seasons includes

A. Rain

B. Snow

C. Dew

D. Both(A) and (B)

Answer: D

View Text Solution

23. The key elements which lead to much variation in the physical and chemical conditions of different habitat are enlisted below Temperature, wind, water, light, soil, humidity, UV rays

A. 5

B. 6

C. 4

D. 3

Answer: C

View Text Solution

24. In tropical deserts, the temperature goes

A. $> 40^{\circ} C$

B. $> 60^{\circ} C$

C. $> 50^{\circ} C$

D. $> 70^{\circ} C$

Answer: C

View Text Solution

25. Habitats such as thermal springs and deep-sea hydrothermal vents have average temperature exceeding

A. $100^\circ C$

B. $150^\circ C$

C. $80^\circ C$

D. $1000^\circ C$

Answer: A

View Text Solution

26. The organisms which thrive in a very narrow range of temperatures are known as

A. Stenothermal

B. Poikilothermal

C. Homiothermal

D. Eurythermal

Answer: A

View Text Solution

27. The organisms which thrive in a wide range of temperature is called as

A. Stenothermal

B. Poikilothermal

C. Homiothermal

D. Eurythermal

Answer: D

View Text Solution

28. The organisms which are tolerant of a wide range of salinities are

A. Salinitroph

B. Euryhaline

C. Salinohaline

D. Stenohaline

Answer: B

View Text Solution

29. The organisms which are restricted to a narrow range of salinity are known as

A. Salinitroph

B. Euryhaline

C. Salinohaline

D. Stenohaline

Answer: D

View Text Solution

30. Fresh water animals cannot live in sea water for long due to

A. Vapour pressure

B. Purity

C. Osmosis

D. Thermal change

Answer: C

View Text Solution

31. The activities of animals like foraging,reproductive and migratory depends upon

A. Temperature

B. Water

C. Light

D. Air

Answer: A

View Text Solution

32. vegetation in any area depends on

A. pH of soil

B. mineral composition

C. topography

D. all of the above

Answer: D

View Text Solution

33. The internal environment of an organism is called

A. Equilibrium

B. Organostasis

C. Homeostasis

D. Apoptosis

Answer: C

View Text Solution

34. The most effective way to get relief from high temperature is

A. Oil secretion

B. Frequent urination

C. High water intake

D. Profuse sweating

Answer: D

View Text Solution

35. The factors which affects percolation and water holding capacity of soil

A. Grain size

B. Soil Composition

C. Aggretion

D. All of these

Answer: D

View Text Solution

36. Thousands of migratory birds from Siberia visits which part of India ?

A. Nal sarovar

B. Mann sarovar

C. Keolado national park

D. Jim corbett national park

Answer: C

View Text Solution

37. In higher plants which structure helps to tide over period of stress ?

A. Roots

B. Seeds

C. Fruits

D. Stem

Answer: B

View Text Solution

38. Many adapations of an organism have evolved over a long duration of evolution and are known as

A. Genetically unstable

B. Genetically fixed

C. Genetically disadvantageous

D. Genetically extemporaneous

Answer: B

View Text Solution

39. Kangaroo rat is capable of meeting its requirement of water through

A. Reduction of fats

B. Oxidation of proteins

C. Reduction of proteins

D. Oxidation of fats

Answer: D

View Text Solution

40. Snails and fish undergo aestivation to avoid summer related problems of heat and

A. Hygroscopicity

B. Desiccation

C. Efflorescence

D. Starvation

Answer: B

View Text Solution

41. Under unfavourable conditions, many species of zooplankatons which lives in small water bodies are known to enter .....

A. Diapause

B. Metapause

C. Neopause

D. Menopause

Answer: A

View Text Solution

42. Desert animals have the capability of forming ..... urine.

A. Hypotonic

B. Isometic

C. Concentrated

D. Dilute

Answer: C

View Text Solution

43. In opuntia, leaves are reduced to

A. Thorns

B. Prickles

C. Spines

D. Buds

Answer: C

View Text Solution

44. Mammals from colder climates generally have ..... ears and limbs to minimizes heat loss

A. Reduced

B. Shorter

C. Longer

D. Wider

Answer: B

View Text Solution

45. Thick layer of fat under the skin in aquatic 5 mammals of polar sea

A. Blubber

B. Flubber

C. Rubber

D. Stubber

Answer: A

View Text Solution

46. Allen's rule is with respect to

A. Reptiles

B. Mammals

C. Aves

D. Amphibia

Answer: B

View Text Solution

47. The symptoms of altitude sickness are

A. Nausea

B. Heart palpitation

C. Fatigue

D. All of the above

Answer: D

View Text Solution

48. To evolve certain desired traits, natural selection should operate at ..... level

A. Species

B. Biomes

C. Population

D. Genus

Answer: C

View Text Solution

49. Identify the correct equation for population density at time t+1

A. $N = N_t + [(D + 1) - (B + E)]$

B. $N = N_t + [(B + 1) - (D + E)]$

C. $N_{t+1} = N_t + [(B + (D) - (I + E)]$

D. $N_{t+1} = N_t + [(B + 1) - (D + E)]$

Answer: B

View Text Solution

50. The value of 'r' for Norway rat is .....

A. 0.15

B. 0.0015

C. 0.015

D. 1.5

Answer: C

View Text Solution

51. The r value for flour beetle is ..

A. 0.15

B. 0.12

C. 0.21

D. 0.012

Answer: B

View Text Solution

52. The r value for human population in India is .....

A. 0.15

B. 0.0502

C. 0.0205

D. 0.012

Answer: C

View Text Solution

53. In reproductive fitness of a population in a certain habitat is also termed as .....

A. Verhulst's fitness

B. Darwin's fitness

C. Lamarkian fitness

D. Huxley's fitness

Answer: B

View Text Solution

54. Nearly ..... % of all insects are known to be phtophagous

A. 25%

B. 35%

C. 45%

D. 10%

Answer: A

View Text Solution

55. Which of the following weed plant produces cardiac glycosides (highly poisonous material) ?

A. Acacia

B. Cactus

C. Calotropis

D. All of these

Answer: C

View Text Solution

56. Which of the following substance are produced by plants as defence against grazers and browsers Nicotine, Caffiene, Quinine, Strychnine, Opium

A. 2

B. 3

C. 4

D. 5

Answer: D

View Text Solution

57. Following breeds many times during their life time except

A. Birds

B. Mammals

C. Amphibians

D. Pacific salmon fish

Answer: D

View Text Solution

58. Select incorrect statement

A. The Mediterranean orchid ophrys employs sexual deceit to get pollinated

B. In mycorrhizal association, fungi help the plant in absorption of essential nutrients from the soil.

C. Pinus seeds cannot germinate and establish without the presence of mycorrhiza.

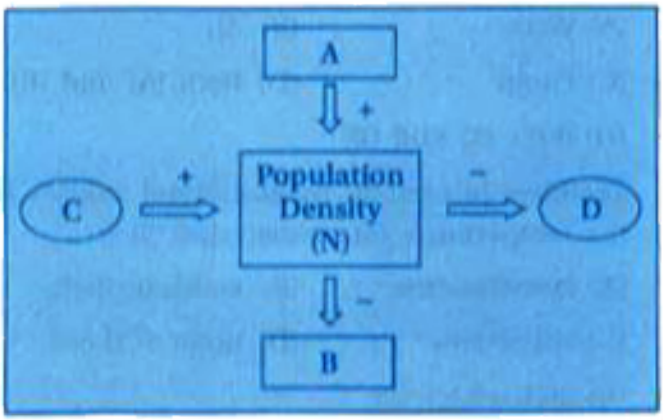
D. When resources are unlimited, the growth is usually logistic but when

resources becomes progressively limiting, the growth pattern turns exponential.

Answer: D

View Text Solution

59. Identify the A,B,C, and D in this figure



A. A : Immigration(I), B : Emigration (E),

C: Natality (B), D: mortality (D)

B. A: Natality (B), B: Immigration (I),

C: Mortality (D), D: Emigration (E)

C. A: Mortality (D), B: Emigration (E),

C: Natality (B), D: Immigration (I)

D. A: Mortality (D), B: Natality,

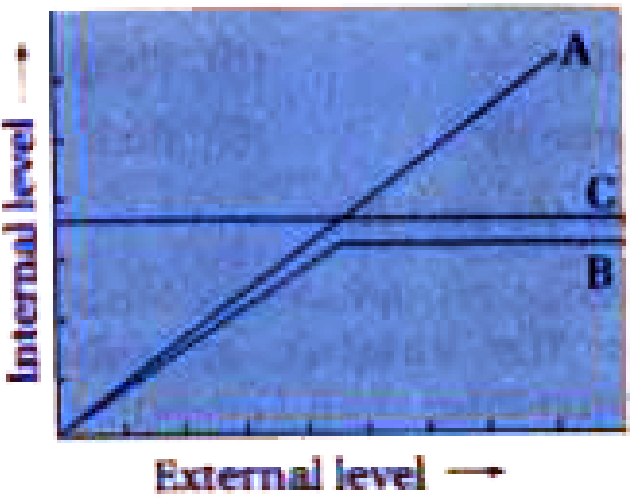
C: Emigration(E), D: Immigration

Answer: A

View Text Solution

60. The figure given below represents response of organisms to abiotic factors, what

does A, B and C represents



A. A : Conformer B : Partial regulators C: Regulators

B. A: Partial regulators B: Conformers, C: Regulators

C. A: Regulators B: Partial regulators C: Conformers

D. A: Conformers B: Regulators C: Partial regulators

Answer: A

View Text Solution

61. What parameters are used for tiger census in our country's national park and sanctuarles ?

A. Pug marks only

B. Pug marks and faecal pellets

C. Faecal pellets only

D. Actual head counts

Answer: B

View Text Solution

62. In which interaction only one species is benefitted ?

A. Mutualism

B. Competition

C. Parasitism and predation

D. Amensalism

Answer: C

View Text Solution

63. Best example of co-evolution is

A. Fig trees and pollinator species of wasp

B. Fungus and cyanobacteria

C. Sea anemone and clown fish

D. All of them

Answer: D

View Text Solution

64. Which organism produces large number of small sized offsprings?

A. Oyster

B. Pelagic fishes

C. Mammals

D. Both (A) and (B)

Answer: D

View Text Solution

65. A protozoan reproduces by binary fission. What will be the number of protozoans in its population after sixth generation ?

A. 128

B. 24

C. 64

D. 32

Answer: C

View Text Solution

66. lichens are association of

A. Bacteria and fungus

B. Algae and bacteria

C. Fungus and algae

D. Fungus and virus

Answer: C

View Text Solution

67. Which of the following is partial root parasite ?

A. Sandal wood

B. Mistletoe

C. Orobanche

D. Ganoderma

Answer: A

View Text Solution

68. In sigmoid growth curve, the initial stage of slow growth is called

A. Log phase

B. Exponential phase

C. Lag phase

D. Stationary phase

Answer: C

View Text Solution

69. Growth of a population of an area depends upon

A. Natality

B. Immigration

C. Environmental resistance

D. All of these

Answer: D

View Text Solution

70. The orchid plant that grows on other plant are

A. Parasites

B. Epiphytes

C. Saprophytes

D. Halophytes

Answer: B

View Text Solution

71. Plants growing on rocks are

A. Lithophytes

B. Epiphytes

C. Psychrophtes

D. Psammophtes

Answer: A

View Text Solution

72. Which one of the following is a protective device?

A. Commensalism

B. Camouflage

C. Competition

D. Symbiosis

Answer: B

View Text Solution

73. Is a least porus soil

A. Loam soil

B. Clay soil

C. Peaty soil

D. Sandy soil

Answer: B

View Text Solution

74. Mechanical tissues are poorly developed in

A. Lithophytes

B. Hydrophytes

C. Epiphytes

D. Xerophytes

Answer: B

View Text Solution

75. Abiotic components of ecosystem includes

A. Water

B. Air

C. Fungi

D. Both (A) and (B)

Answer: D

View Text Solution

76. Microbes present in hydrothermal vents where the temperature far exceeds $100^{\circ} C$ is

A. cyanobacteria

B. archaebacteria

C. eubacteria

D. none of these

Answer: B

View Text Solution

77. The age of pyramid with narrow base indicates

A. high number of young individuals

B. low number of young individuals

C. high number of old individuals

D. low number of old individuals

Answer: B

View Text Solution

78. Match the column with correct options .

Column - I		Column - II	
A.	Pacific salmon fish	1.	produces a small number of large sized offsprings.
B.	Mammals	2.	produces a large number of small sized offspring.
C.	Oysters	3.	breed only once in their lifetime.
D.	Birds	4.	Breed many times during their lifetime

A. A : 3, B : 4,C : 2, D : 1

B. A : 1, B : 4, C : 2, D : 3

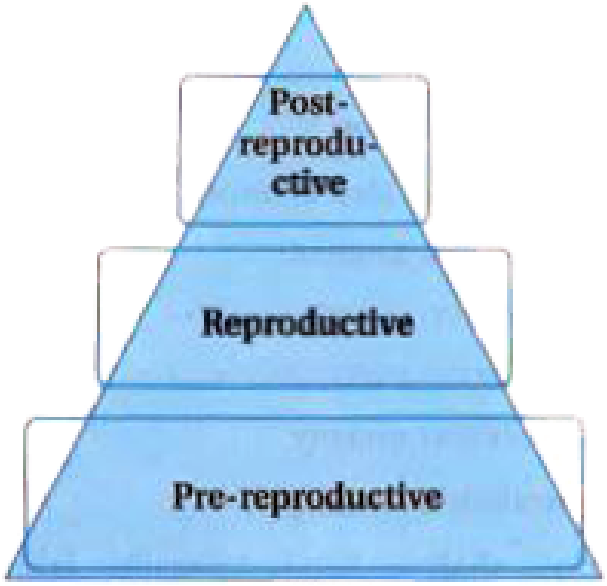
C. A : 4, B : 2, C : 1, D : 3

D. A : 1, B : 4, C : 3, D : 2

Answer: A

View Text Solution

79. What type of human population is represented in the following pyramid ?



A. Expanding population

B. Vanishing population

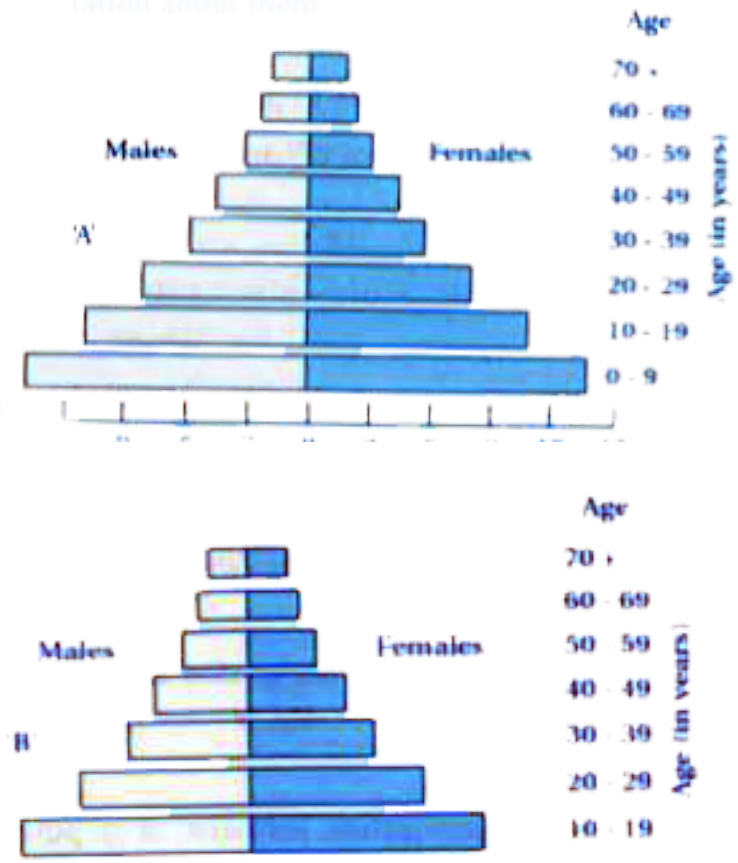
C. Declining population

D. Stable population

Answer: A

View Text Solution

80. A country with a high rate of population growth took measures to reduce it. The figure below shows age- sex pyramid of populations A and B twenty years apart. Select the correct interpretation about them.



A. "A" is the earlier pyramid and no change has occurred in the growth rate

B. "A" is more recent and shows slight reduction in the growth rate.

C. "B" is the earlier pyramid and shows stabilised growth rate.

D. "B" is more recent showing that population is very young.

Answer: B

View Text Solution

81. Two different species can not live for long duration in the same habitat or niche. This law is :

A. Allen's law

B. Bergmen's law

C. Competitive exclusion principle

D. Weisman's theory

Answer: B

View Text Solution

82. If the stressful external conditions are localised or remain only for a short duration, the organisms has some alternatives like

A. Regulate

B. Conform

C. Migrate

D. Suspend

Answer: C

View Text Solution

83. Heat loss or heat gain is the function of

A. Surface area

B. Body volume

C. Body weight

D. Body size

Answer: A

View Text Solution

84. Thermoregulation is energetically expensive for many organisms particularly

A. Small animals

B. Shrews

C. Humming birds

D. All of the above

Answer: D

View Text Solution

85. Benthic animals live

A. Deep in the sea

B. Floating

C. Submerged

D. Active swimmers

Answer: A

View Text Solution

86. Population density is designated as

A. D

B. P

C. N

D. d

Answer: C

View Text Solution

87. The most appropriate measure of population density is generally

A. number

B. biomass

C. percent cover

D. all of the above

Answer: A

View Text Solution

88. Which one provide the evidence for the occurrence of competition in nature ?

A. Resource partitioning

B. Competitive release

C. MacArthur experiment

D. All of the above

Answer: B

View Text Solution

89. Abingdon tortoise in Galapagos islands became extinct with in -(1)- after -(2), were introduced on the island, apparently due to the greater browsing efficiency of the -(3)-

A. (1) a year, (2) Darwin finches, (3) tortoise

B. (1) a decade, (2) goats, (3) tortoise

C. (1) a year, (2) goat, (3) goat

D. (1) a decade, (2) goats, (3) goats

Answer: D

View Text Solution

90. Main characteristic of halophytes is

A. Sunken stomata

B. Vivipary

C. Heterophylly

D. All of the above Ins.

Answer: D

View Text Solution

91. Which part of the world has high density of organisms?

A. Grasslands

B. Savannahs

C. Deciduous forests

D. Tropical rain forests

Answer: D

View Text Solution

92. Species diversity is lowest in ecosystem

A. Desert

B. Tundra

C. Grassland

D. Deciduous forest

Answer: B

View Text Solution

93. Percent individuals of a given age or age group is called

A. Age distribution

B. Age pyramid

C. Sex ratio

D. both (A) and (C)

Answer: A

View Text Solution

94. The population size in more technically called

A. population gradient

B. population census

C. population pressure

D. population density

Answer: D

View Text Solution

95. In some shallow South American lakes visiting flamingos and resident fishes compete for their common food,

A. phytoplanktons

B. zooplanktons

C. insects

D. both(A) and (B)

Answer: B

View Text Solution

96. Which statement is false about predators ?

A. Predators keep prey population under control

B. Predators help in maintaining species diversity in a community

C. If a predator is not efficient, population will become extinct

D. Tiger is an example of predator

Answer: C

View Text Solution

97. Orchids show a bewildering diversity of floral pattern and attract the pollinating agent which is

A. Bees

B. Bumblebees

C. Bats

D. Both(A) and (B)

Answer: D

View Text Solution

Section F Multiple Choice Questions Mcqs Asked In Competitive Exam

1. Useful adaptation for hydrophytes is

A. Large leaves

B. Decrease in mechanical tissues

C. Large mechanical tissue

D. Increase in aerenchyma

Answer: D

View Text Solution

2. Importance of ecosystem lies in

A. Flow of energy

B. Cycling of materials

C. Both(A) and (B)

D. None of these

Answer: C

View Text Solution

3. Fertilizer obtained from sea bird along the west of Chile and Peru

A. Guano

B. Bone meal

C. Dung

D. Urea

Answer: A

View Text Solution

4. MAB stands for

A. Man, antibiotic and bacteria

B. Man and biotic community

C. Man and biosphere

D. Meyer, Anderson and Bisby

Answer: C

View Text Solution

5. A Lake ecosystem is

A. Artificial

B. Abiotic

C. Natural

D. Hydrological

Answer: C

View Text Solution

6. Heterophilly is found in

A. Nymphaea

B. Nelumbo

C. Sagittaria

D. Vallisneria

Answer: C

View Text Solution

7. When in an association, only one species is benefitted and neither is harmed

A. Mutualism

B. Proto-cooperation

C. Commensalism

D. Exploitation

Answer: C

View Text Solution

8. Grasslands with scattered trees are called

A. Rain forests

B. Evergreen forests

C. Savannah

D. Deciduous forests

Answer: C

View Text Solution

9. Group of two or more than two plant species is called as

A. Plant community

B. Animal community

C. Plant ecosystem

D. Ecological niche

Answer: A

View Text Solution

10. Pea root Rhizobium bacteria shows

A. Symbiosis

B. Commensalism

C. Predation

D. Parasitism

Answer: A

View Text Solution

11. Bacteria live in the body of the host , in which bacteria is benefitted and host is not affected, the bacteria is

A. Symbiont

B. Commensal

C. Parasite

D. Predator

Answer: B

View Text Solution

12. Which of the following is a correct pair ?

A. Cuscuta-parasite

B. Dischidia-insectivores

C. Opuntia-predator

D. Capsella-hydrophyte

Answer: A

View Text Solution

13. Which of the following does not have stomata ?

A. Hydrophyte

B. Mesophyte

C. Xerophyte

D. Submerged hydrophyte

Answer: D

View Text Solution

14. Species is a

A. Group immediately below a phylum

B. Closely related interbreeding population

C. Taxonomic division of similar general

D. Closely related non-breeding population

Answer: B

View Text Solution

15. What is the pH of the soil for cultivation of plants ?

A. 3.4 - 5.4

B. 6.7 - 7.5

C. 4.5 - 8.5

D. $5.5 - 6.0$

Answer: D

View Text Solution

16. The stem of submerged water plant is soft and weak because

A. They are absolutely devoid of xylem

B. They totally lack phloem

C. They do not have stomata

D. Supporting tissue and xylem are feebly developed

Answer: D

View Text Solution

17. The abundance of a species population within its habitat is called

A. Niche density

B. Regional density

C. Relative density

D. Absolute density

Answer: A

View Text Solution

18. The pyramid of number in a grassland ecosystem

A. Linear

B. Inverted

C. Upright

D. Negative

Answer: A

View Text Solution

19. Soil transported by air is called

A. Eolian

B. Alluvial

C. Aerial

D. Residual

Answer: A

View Text Solution

20. The independent evolution of flowering plants and pollinating insects together is known as

A. Mutualism

B. Co-evolution

C. Commensalism

D. cooperation

Answer: B

View Text Solution

21. Food derived by killing organism is known as

A. Commensalism

B. Symbiosis

C. Parasitism

D. Predation

Answer: D

View Text Solution

22. Which of the following is not true for a species?

A. Members of a species can interbreed.

B. Gene flow does not occur between the population of a species

C. Each species is reproductively isolated from every other species

D. Variations occur among members of a species

Answer: B

View Text Solution

23. Animals have the innate ability to escape from predation. Examples for the same are given below. Select the incorrect example,

A. Colour change in chameleon

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

C. Poison fangs in snakes

D. Melanism in moths

Answer: C

View Text Solution

24. The formula for exponential population growth

A. $dN/rN = rN$

B. $dt/dN = rN$

C. $dN/rnN = r/N$

D. $rN/dN = dt$

Answer: A

View Text Solution

25. Ecology deals with

A. The earth and planet

B. The relationship between organism and their environments

C. The life under the sea

D. Economical growth of poor people

Answer: B

View Text Solution

26. Which one of the following is not used for construction of ecological pyramids?

A. Fresh weight

B. Dry weight

C. Number of individual

D. Rate of energy flow

Answer: A

View Text Solution

27. Praying mantis is a good example of

A. Camouflage

B. Mullerian mimicry

C. Warning colouration

D. Social insects

Answer: A

View Text Solution

28. Niche overlap is

A. Mutualism between two species

B. Active cooperation between two species

C. Two different parasites on same food

D. Sharing resources between two species

Answer: D

View Text Solution

29. Annual migration does not occur in

A. Arc tern

B. Salamander

C. Salmon

D. Siberian crane

Answer: B

View Text Solution

30. Warm blooded animals of cold climate have small extremities. This was stated by

A. Bargmen

B. Gloger

C. Dollo

D. Allen

Answer: D

View Text Solution

31. Excessive arenchyma is characterstic feature of

A. Heliophytes

B. Xerophytes

C. Mesophytes

D. Hydrophytes

Answer: D

View Text Solution

32. Which plant is found in mangrove zone ?

A. Rhizophora

B. Acacia

C. Pinus

D. Tectona grandis

Answer: A

View Text Solution

33. Micro-organisms having optimum temperature for growth below $15^{\circ} C$ and cannot grow above $20^{\circ} C$ are called as

A. Mesophile

B. Thermophile

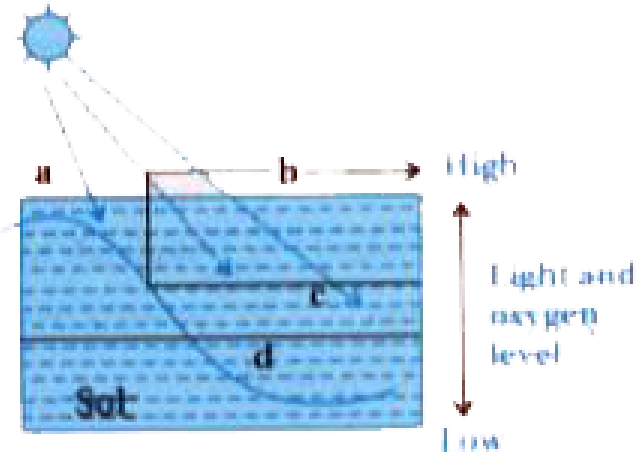
C. Psychrophile

D. None of these

Answer: C

View Text Solution

34. Choose correct combination of labelling in aquatic zones:



A. a- limnetic zone, b-profundal zone, c-littoral zone, d-benthic zone

B. a-limnetic zone, b-benthic zone, c-profundal zone ,d-littoral zone

C. a-littoral zone, b-limnetic zone, c.profundal zone, d-benthic zone

D. a-littoral zone, b-profundal zone, C-benthic zone, d-limnetic zone

Answer: C

View Text Solution

35. The population of an insect species shows explosives increase in numbers during rainy

season followed by its disappearance at the end of the season. What does this 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 predator increases enormously

D. S-Shapead or sigmoid growth of this insect.

Answer: B

View Text Solution

36. A high density of elephant population in an area can result in

A. Intraspecific competition

B. Interspecific competition

C. Predation on one another

D. Mutualism

Answer: A

View Text Solution

37. A_0 layer is rich in

A. Litter

B. Minerals

C. Leachates

D. Humus

Answer: D

View Text Solution

38. Large sized rooted plants found in shallow waters are called

A. Macrophytes

B. Microphytes

C. Phagophytes

D. Saprophytes

Answer: A

View Text Solution

39. More than 70% of world's fresh water is contained in

A. Antarctica

B. Glaciers and mountains

C. Green land and south

D. Polar ice

Answer: D

View Text Solution

40. Species can be identified on the basis of

A. Interbreeding

B. Species diversity

C. Reproductive isolation

D. None of these

Answer: C

View Text Solution

41. Study of interrelationships between a species /individuals and its environment in all stages of its life cycle is

A. Synecology

B. Forest ecology

C. Autoecology

D. Ecology

Answer: C

View Text Solution

42. Study of interrelationship between an entire community and its environment is

A. Autoecology

B. Resource ecology

C. Species ecology

D. Synecology

Answer: D

View Text Solution

43. The sum total of the populations of the same kind of organisms

A. Colony

B. Genus

C. Community

D. Species

Answer: D

View Text Solution

44. Quercus species are dominant component

A. Temperate forest

B. Tropical rain forest

C. Alpine forest

D. Scrub forest

Answer: A

View Text Solution

45. Most populus country of the world is

A. Bangladesh

B. Indonesia

C. India

D. China

Answer: D

View Text Solution

46. Roots of higher plants develop mycorrhiza for obtaining

A. Sulphates

B. Nitrogen

C. Phosphates

D. All of the above

Answer: D

View Text Solution

47. Small fish sticks to bottom of shark to obtain food crumbs

A. Antibiosis

B. Predation

C. Commensalism

D. Parasitism

Answer: C

View Text Solution

48. Match the column with suitable options

	Column - I		Column - II
i	Demography	A.	number of birth per 1,000 persons per year
ii	Census	B.	carrying capacity
iii	natality rate	C.	Scientific study of human population
iv	population crash	D.	zero growth rate
v	plateau phase	E.	Lemmings
vi	K	F	Total count of population
vii	population cycles	G.	Rapid decline of a population

A. i - C, ii - F iii - A, iv - G, V - D, vi - B, vii - E

B. i - D, ii - C, iii - A, iv - G, V - F, vi - B, vii - E

C. i - A, ii - B, iii - C, iv - D, v - E, vi - F vii - G

D. i - G, ii - F, iii - E, iv - D, v - C, vi - B, vii - A

Answer: A

View Text Solution

49. 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

Answer: C

View Text Solution

50. Match the column - I with column - II and select the correct option

Column - I		Column - II	
A.	Camouflage	1.	Dendrobates pumilio
B.	Batesian mimicry	2.	Horse shoe bat
C.	Warning mimicry	3.	Monarch butterfly
D.	echo -location	4.	praying mantis

A. A -2, B - 4, C-3, D-1

B. A-3, B - 4, C-2, D-1

C. A-4, B - 1, C-3, D-2

D. A - 4, B-3, C-1, D-2

Answer: D

View Text Solution

51. Halophytes occurs in

A. Salty soil

B. Desert

C. Near river

D. Rainy water

Answer: A

View Text Solution

52. A mutually beneficial association necessary for survival of both the partners

A. Symbiosis

B. Commensalism

C. Amensalism

D. Both (A) and (B)

Answer: A

View Text Solution

53. A Teacher explaining physical contact leading to equal physiological dependence between two thalloid forms was telling about

A. Mycorrhizal association

B. Establishment of heterothallism

C. Operation of heterothallism

D. Advent of lichen formation

Answer: D

View Text Solution

54. Soil best suited for growth is

A. Clay

B. Loam

C. Sandy

D. Gravel

Answer: B

View Text Solution

55. A renewable exhaustible natural resource is :

A. Coal

B. Petroleum

C. Minerals

D. Forest

Answer: D

View Text Solution

56. Microscopic aquatic organisms lacking locomotory ability and drifting with water current are

A. Pleuston

B. Nekton

C. Plankton

D. Seston

Answer: C

View Text Solution

57. Bell shaped polygonal pyramid indicates,

A. High percentage of old individual

B. Low percentage of young individual

C. Moderate percentage of young individual

D. Low percentage of old individual

Answer: C

View Text Solution

58. an evolutionary pattern characterized by rapid increase in the number and kinds of closely related species is called as

A. Convergent evolution

B. Divergent evolution

C. Adaptive radiation

D. Parallel evolution

Answer: C

View Text Solution

59. The volume and surface area of a deer are $150,000cm^3$ and $19,000cm^2$ and those of a squirrel are $625cm^3$ and $530cm^2$. The area

available for heat loss per cm^2 volume of the squirrel will be approximately

A. 7 times more than the deer

B. 5 times less than the deer

C. 3 times more than the deer

D. 11 times more than the deer

Answer: A

View Text Solution

60. Study the statement (a-d) and select the correct option

(a) A lion eating a deer and sparrow feeding on grains are consumers

(b) Predator starfish, pisaster, helps in maintaining diversity of some invertebrates

Predators ultimately lead to extinction of prey species

(d) Plant chemicals like nicotine and strychnine are produced due to metabolic disorders

A. c & d

B. a & d

C. a & b

D. b & c

Answer: C

View Text Solution

61. Which of the following is/are an agiospermic hydrophyte

A. Hydrilla

B. Valicinaria

C. Zyzyphus

D. Both (A) and (B)

Answer: D

View Text Solution

62. $-1^{\circ}C$ to $13^{\circ}C$ variation in the intensity and duration of temperature and 50 cm to 250 cm annual variaton in precipitation accounts for formation of major biomes as

A. Temperate forest

B. Coniferous forest

C. Tropical forest

D. Grassland

Answer: B

View Text Solution

63. Maximum survival and reproductive capacity shown by a population under optimal environmental condition is called as

A. Carrying capacity

B. Natality

C. Biotic potential

D. Vitalty

Answer: C

View Text Solution

64. The basic unit of study in ecology is

A. Population

B. Organism

C. Community

D. Species

Answer: B

View Text Solution

65. The most important factor which determined the increase in human population in india during 20th century was

A. Natality

B. Mortality

C. Immigration

D. Emigration

Answer: A

View Text Solution

66. A population growing in a habitat with limited resources shows four phases of growth in the following sequence

A. Acceleration - deceleration - lag phase. asymptotic

B. Asymptotic - acceleration - deceleration - lag phase

C. Lag phase - acceleration - deceleration - asymptotic

D. Acceleration - lag phase - deceleration - asymptotic

Answer: C

View Text Solution

67. Large, Woody wines are most commonly found in

A. Tropical rainforest

B. Alpine forest

C. Temperate forest

D. Mangrooves

Answer: A

View Text Solution

68. Most economical and effective method for control of soil pH is applicaton of

A. $CaCO_3$

B. $Ca(OH)_3$

C. $CaCl_3$

D. $Ca(NO)_3$

Answer: A

View Text Solution

69. Select the correct Pair of adaptation

(a) Burrowing in soil to escape high temperature

(b) Lossing heat rapidly at high temperature

(c) Bask in the sun when temperature is low

(d) Insulating body with thick fatty dermis

A. b & d

B. a & b

C. c & d

D. a & c

Answer: D

View Text Solution

70. Root cap is absent in

A. Xerophytes

B. Mesophytes

C. Hydrophytes

D. Halophytes

Answer: C

View Text Solution

71. Number of births per year per 1000 individual is

A. Demography

B. Natality

C. Mortality

D. Density

Answer: B

View Text Solution

72. The vertical distribution of different species occupying different levels is called as

A. stratification

B. fragmentation

C. mobilization

D. mineralization

Answer: A

View Text Solution

73. Biologist who has been called the Darwin of the 20th century was

A. Linnaeus

B. Ernst mayr

C. Diener

D. Whittaker

Answer: B

View Text Solution

74. Organisms capable of maintaining constant body temperature are

A. Stenothermal

B. Homeothermal

C. poikilothermal

D. conformers

Answer: B

View Text Solution

75. Which of the following causes parasitic castration of crab ?

A. sacculina

B. adamsia

C. spongilla

D. none of these

Answer: A

View Text Solution

76. Which one of the following is categorized as a parasite in true sense ?

A. human foetus developing inside the uterus draws nourishment from the mother

B. head louse living on the human scalp as well as laying eggs on human hair

C. the cuckoo (koel) lays its eggs in crow's nest

D. the female anopheles bites and sucks blood from human

Answer: B

View Text Solution

77. Cuscuta is an example of

A. Brood parasitism

B. Predation

C. Endoparasitism

D. Ectoparasitism

Answer: D

View Text Solution

78. Which of the following is a pioneer in xerarch succession ?

A. Sedges

B. Lichens

C. Bryophytes

D. Phytoplankatons

Answer: B

View Text Solution

79. Which of the following is a population

A. All the plants in a forest

B. All the oak trees in the forest

C. A spider and some trapped flies in its web

D. Earthworm that lives in a grassland with other arthropods WB JEE - 2012

Answer: B

View Text Solution

80. The population limited to a particular geographic area is called as

A. Alien

B. Natural

C. Endemic

D. Pandemic

Answer: C

View Text Solution

81. Which of the following microbes forms symbiotic association with plants and helps in their nutrition ?

A. Azatobacter

B. Aspergillus

C. Glomus

D. Trichoderma

Answer: C

View Text Solution

82. The stage of suspended development shown by zooplanktons is called

A. Desiccation

B. Diapause

C. Hibernation

D. Homeostasis

Answer: B

View Text Solution

83. Match the following

Population interaction		Example	
1.	predation	A.	cuscuta and hedge plant
2.	commensalism	B.	balanus and chathamalus
3.	parasitism	C.	cactus and moth
4.	competition	D.	orchid and mango

A. 1-C, 2-D, 3 - A, 4 - B

B. 1-D, 2-C, 3-B, 4 - A

C. 1-A, 2-C, 3-B, 4-D

D. 1-C, 2-D, 3-B, 4 - A

Answer: A

View Text Solution

84. Where do certain symbiotic micro-organism normally occur in human body ?

A. Caecum

B. Oral lining and tongue surface

C. Vermiform appendix and caecum

D. Duodenum

Answer: A

View Text Solution

85. Sacred grooves are specially useful in

A. Generating environmental awareness

B. Preventing soil erosion

C. Year-round flow of water in rivers

D. Conserving rare and threatened species

Answer: D

View Text Solution

86. A sedentary sca ancmone gets attached to the shell lining of hermit crab. The association is

A. ectoparasitism

B. symbiosis

C. commensalism

D. amensalism

Answer: C

View Text Solution

87. Which one of the following processes during decomposition is correctly described ?

A. Fragmentation-Carried out by organisms such as earthworm

B. Humification Leads to the accumulation of a clark coloured substance humus, which undergoes microbial action at a very fast rate

C. Catabolism-Last step in the decomposition under fully anaerobic condition

D. Leaching-Water soluble inorganic nutrients rise to the top layers of soil

Answer: A

View Text Solution

88. 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. 10

B. 15

C. 05

D. Zero

Answer: D

View Text Solution

89. In which of the following interactions both partners are adversely affected ?

A. Competition

B. Predation

C. Parasitism

D. Mutualism

Answer: A

View Text Solution

90. An association of individuals of different species living in the same habitat and having functional interactions is

A. ecological niche

B. biotic community

C. ecosystem

D. population

Answer: B

View Text Solution

91. Which of the following is correct for r-selected species?

A. Large number of progeny with small size

B. Large number of progeny with large size

C. Small number of progeny with small size

D. Small number of progeny with large size

Answer: A

View Text Solution

92. If '+' sign is assigned to beneficial interaction, '-'sign to detrimental and '0' sign to neutral interaction, then the population interaction represented by '+"-'refers to

A. mutualism

B. amensalism

C. commensalism

D. parasitism

Answer: D

View Text Solution

93. The principle of competitive exclusion was

A. C Darwin

B. GF Gause

C. MacArthur

D. Verhulst and Pearl

Answer: B

View Text Solution

94. It is much easier for a small animal to run uphill than for a large animal, because

A. smaller animals have a higher metabolic rate

B. small animals have a lower O_2 requirement

C. the efficiency of muscles in large animals is less than in the small animals

D. it is easier to carry a small body weight

Answer: A

View Text Solution

95. When does the growth rate of a population following the logistic model equal zero ? The logistic model is given as dN/dt = rN(1-N/K)

A. when N nears the carrying capacity of the habitat

B. when N/K equals zero

C. when death rate is greater than birth rate

D. when N/K is exactly one

Answer: D

View Text Solution

96. Gause's principle of competitive exclusion states that

A. Competition for the same resources excludes species having different food preferences

B. No two species can occupy the same niche indefinitely for the same limiting resources

C. Larger organisms exclude smaller ones through competition

D. More abundant species will exclude the less abundant species through competition

Answer: B

View Text Solution

97. Mycorrhizae are the example of

A. fungistasis

B. amensalism

C. antibiosis

D. mutualism

Answer: D

View Text Solution

98. Asymptote in a logistic growth curve is obtained, when

A. The value of ‘r’ approaches zero

B. K = N

C. K gt N

D. K lt N

Answer: B

View Text Solution

99. Which one of the following population Interactions is widely used in medical science for the production of antibiotics ?

A. Amensalism

B. Commensalism

C. Parasitism

D. Mutualism

Answer: B

View Text Solution

100. In a growing population of a country,

A. pre-reproductive individuals are less than the reproductive individuals.

B. pre-reproductive individuals are more than the reproductive individuals.

C. reproductive and pre-reproductive individuals are equal in number.

D. reproductive individuals are less than the post-reproductive individuals.

Answer: B

View Text Solution

101. Natality refers to

A. Number of individuals entering a habitat

B. Death rate

C. Number of individuals leaving the habitat

D. Birth rate

Answer: D

View Text Solution

102. Which of the following flowers only once in its life-time?

A. Papaya

B. Bamboo species

C. Mango

D. Jackfruit

Answer: B

View Text Solution

103. Pinus seed cannot germinate and establish without fungal association. This is because :

A. its embryo is immature

B. it has obligate association with mycorrhizae.

C. it has very hard seed coat.

D. its seeds contain inhibitors that prevent germination.

Answer: B

View Text Solution