



# BIOLOGY

## BOOKS - A2Z BIOLOGY (HINGLISH)

### ORGANISMS AND POPULATIONS

#### Section A Topicwise Questions Topic 1 Organism And Its Environment Major Abiotic Factors

1. Who formulated the first postgraduate course of ecology in India?

A. P.Maheshwari

B. Ramdeo Misra

C. G.N.Ramchandran

D. K.Esau

**Answer: B**



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2. There are various levels of biological organisation. What is the correct sequence of the increasing complexity?

A. Macromolecules, cells, tissues, organs, organisms, population, communities and ecosystem, and biomes

B. Macromolecules, cells, tissues, organs, organisms, communities and ecosystems, population and biomes

C. Macromolecules, cells, tissues, organs, population, communities and ecosystem, organisms and biomes

D. Macromolecules, cells, tissues, organs,  
organisms,

**Answer: A**



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**3. Why does a bird sing?**

A. Operation of the voice box (syrinx)

B. Vibrating bone

C. Bird need to communicate with its mate  
during breeding season

D. Both A and B

**Answer: C**



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**4. How does a bird sing?**

A. Operation of the voice box (syrinx)

B. Vibrating bone

C. Bird need to communicate with its mate  
during breeding season

D. Both A and B

**Answer: D**



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5. The branch of the biology that deals with the studies of interactions among organisms and its physical (abiotic) environment is called

A. Ecology

B. Biotechnology

C. Biome

D. Demecology

**Answer: A**



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**6. Ecology at the organismic level is essentially**

A. Physiological ecology

B. Morphological ecology

C. Behavioural ecology

D. Anatomical energy

**Answer: A**



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7. Distinct type of seasons are resulted due to

A. Annual variation in the intensity of  
temperature



B. Annual variation in the duration of temperature

C. Annual variation in the precipitation

D. Both A and B

**Answer: D**



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**8.** What is the cause of annual variation in the intensity and duration of the temperature?

A. Rotation of earth around sun

B. Tilt of axis of earth

C. Annual variation in the precipitation

D. Both A and B

**Answer: D**



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**9. Major biomes such as desert, rain forest and tundra are formed due to**

A. Annual variation in the intensity of temperature

B. Annual variation in the duration of temperature

C. Annual variation in the precipitation

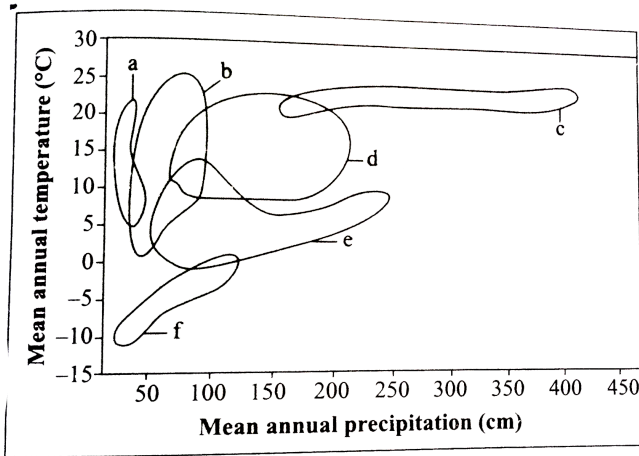
D.

**Answer: D**



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10. Recognise the figure and find out the correct matching.



A. c – tropical forest, a – arctic and alpine tundra, b – desert, d – temperature forest, f – grassland, e – coniferous forest.

B. d – tropical forest, e – arctic and  
alpine tundra, f – desert, e –  
temperate forest, b – grassland, c –  
coniferous forest

C. b – tropical forest, f – arctic and  
alpine tundra, a – desert, c –  
temperate forest, e – grassland, d –  
coniferous forest

D. c – tropical forest, f – arctic and  
alpine tundra, a – desert, d –

temperature forest, b – grassland, e –  
coniferous forest

**Answer: D**



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**11.** Which of the following lead to the formation of a wide variety of habitats within each biome?

A. Regional variations

B. Local variations

C. Abiotic components

D. Both A and B

**Answer: D**



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**12.** Most ecologically relevant environment factor is

A. Temperature

B. Water

C. Light

D. Soil

**Answer: A**



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**13.** What are the key elements that lead to so much variation in the physical and chemical condition of different habitats?



A. Physico-chemical components

B. Temperature, water and light and soil

C. Abiotic factors

D. All of the above

**Answer: D**



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**14. Habitat includes**

A. Biotic components

B. Abiotic components

C. Pathogens, predators, parasites and competitors

D. All of the above

**Answer: D**



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**15.** Ecologists assume that over a period of time, the organism had evolved adaptations to

optimise its survival and reproduction in its habitat through

A. Predation

B. Migration

C. Regulation

D. Natural selection

**Answer: D**



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**16.** The average temperature on land varies

A. Seasonally

B. Decreases progressively from the poles  
towards the equator

C. Decrease progressively from mountain  
tops to the plains

D. All of the above

**Answer: A**



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17. In which of the following habitats, the average temperatures exceed  $100^{\circ}\text{C}$ ?

A. Thermal springs

B. Deep-sea hydrothermal vents

C. Tropical deserts in summer

D. Both A and B

**Answer: D**



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**18.** Read the following statements and find out the incorrect statement(s).

A. Mango trees do not and cannot grow in

tropical

B. Snow leopards are not found in Kerala

forests

C. Tuna fish are rarely caught beyond

tropical latitudes in the ocean.

D. Both A and C

**Answer: A**



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**19.** The significance of temperature to living organisms is appreciable because it affects

- A. Kinetics of the enzymes
- B. Basic metabolism and activity
- C. Physiological functions of the organism
- D. All of the above

**Answer: D**



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**20.** Who determine to a large extent geographical distribution of different species?

- A. Regional and local variations
- B. Physico-chemical components
- C. The level of thermal tolerance
- D. All of the above



**Answer: C**



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**21. Fill in the blanks:**

a. Next to temperature, ..1.. Is the most important factor influencing the life or organisms.

b. Life on earth originated in ..2..and its unsustainable without ..2..

c. The productivity and distribution of ..3..is heavily dependent on water.

d. For aquatic organisms the ..4..of water becomes important.

A. 1 – light, 2 – water, 3 – animals, 4 – quantity

B. 1 – water, 2 – air, 3 – plants, 4 – quality

C. 1 – soil, 2 – water, 3 – animals, 4 – quantity

D. 1 – water, 2 – water, 3 – plants, 4 – quality

**Answer: D**



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**22.** Match the column I and II, and choose the correct combination from the options given.

<b>Column I</b>	<b>Column II</b>
<b>Salt concentration</b>	<b>Example</b>
a. $<5$	1. Sea
b. $30-35$	2. Hypersaline lagoons
c. $>100$	3. Inland waters

A. a – 1, b – 2, c – 3

B. a – 3, b – 1, c – 2

C.  $a - 3, b - 2, c - 1$

D.  $a - 2, b - 1, c - 3$

**Answer: B**



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**23.** Plants require sun light for their

A. Photosynthesis

B. Photoperiodic requirement for flowering

C. Migratory activities

D. Both A and B

**Answer: D**



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**24.** For many animals, light is important in that they use the diurnal and seasonal variations in light intensity and duration (photoperiod) as cues for timing their

A. Foraging activities

B. Reproductive activities

C. Migratory activities

D. All of the above

**Answer: D**



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**25.** What is the 'celestial source' of energy?

A. Sun

B. Fossil fuels

C. Wood/plains

D. All of the above

**Answer: A**



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**26.** How much deep in the oceans, the environment is perpetually dark and its inhabitants are not aware of the existence of Sun?

A.  $> 3500$  m

B.  $> 500$  m

C.  $> 500$  feet

D.  $> 3500$  feet

**Answer: B**



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**27. Which of the following is likely to be found in the deepest waters?**



A. Red algae

B. Green algae

C. Brown algae

D. All of the above

**Answer: A**



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**28.** The nature and properties of soil in different places vary, it is dependent on the

a. Climate

b. Weathering process

c. Whether soil is transported or sedimentary

d. How soil development occurred

A. a, b and c

B. b, c and d

C. a, c and d

D. a, b, c and d

**Answer: D**



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**29.** Who determine the percolation and water holding capacity of the soils?

a. Soil composition

b. Grain size

c. Aggregation

d. pH

e. Mineral composition

f. Topography

A. a, b and c

B. d, e and f

C. a, b, c, d and e

D. a, b, c, d, e and f

**Answer: A**



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**30.** Which characteristics determine to a large extent the vegetation in any area?

- a. Soil composition
- b. Grain size .
- c. Aggregation
- d. pH

e. Mineral composition

f. Topography

A. a, b and c

B. d, e and f

C. a, b, c, d and e

D. a, b, c, d, e and f

**Answer: D**



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31. Who dedicates the type of animals that can be supported in any area?

A. pH, mineral composition and topography

B. Topography, soil composition and grain size

C. Type of vegetation

D. Sediments characteristics

**Answer: C**



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32. Organisms restricted to narrow range of temperature are

A. Stenothermal

B. Eurythermal

C. Biothermal

D. Geothermal

**Answer: A**



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**33.** Which one is the famous plant ecologist of India?

A. Charles Drawin

B. Ramdeo Misra

C. Birbal Sahani

D. Jagdish Chandra Bose

**Answer: B**



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**34.** Ecology is study of relationships of

A. Members of a family

B. Man and environment

C. Organisms and environment

D. Soil and water

**Answer: C**



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**35.** More ecological community of plants and animals extending over large natural area is known as

A. Bioregion

B. Biosphere

C. Biota

D. Biome

**Answer: D**



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**36.** Transition zone between two communities is

A. Ecotone

B. Ecad

C. Ecotype

D. Keystone

**Answer: A**



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37.  $1^{\circ}$  C to  $13^{\circ}$  C temperature and 50 to 250 cm rainfall account for the formation of a major biome

A. Temperature forest

B. Coniferous forest

C. Grassland

D. Tropical forest

**Answer: B**



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**38.** Organisms which can tolerate and thrive in wide range of temperature are called

- A. Eurythermal
- B. Stenothermal
- C. Poikilothermal
- D. homiothermal

**Answer: A**



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**39.** Pedology refers to study of

A. Soil

B. Population

C. Fossils

D. Water

**Answer: A**



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40. Study of ecology of a population /organism is

A. Autecology

B. Synecology

C. Ecotype

D. Demecology

**Answer: D**



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41. Niche of a species is

A. Place of living

B. Specific functions and competitive power

C. Habitat and specific functions

D. None of the above

**Answer: C**



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**42.** Deserts, grasslands, forests and tundra are example of

A. Biomes

B. Populations

C. Biogeographical regions

D. Biospheres

**Answer: A**



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**43.** Biome is

A. The fauna of an ocean

B. The flora of land

C. Communities of organisms interacting  
with one another

D. The part of the earth and its atmosphere  
which is inhabited by living organisms

**Answer: C**



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**44.** Large unit of land having different communities is called

A. Biome

B. Ecosystem

C. Niche

D. Biosphere

**Answer: A**



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**45.** Geographic limit within which a population exists is called

A. Biome

B. Ecosystem

C. Niche

D. Habitat

**Answer: D**



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**46.** Which part of the world has high density of organisms?

A. Grasslands

B. Savannahs

C. Deciduous forests

D. Tropical rain forests

**Answer: D**



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47. Niche overlap is

- A. Mutualism between two species
- B. Active cooperation between two species
- C. Two different parasites on same host
- D. Sharing resources between two species

**Answer: D**



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48. Which one has the maximum biomass?

A. Temperature forest

B. Tropical rain forest

C. Alpine vegetation

D. Taiga

**Answer: B**



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**49.** Grassland with scattered trees is

A. Savannah

B. Deciduous forest

C. Evergreen forest

D. Tropical rain forest

**Answer: A**



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**50. Which is not correctly matched?**

A. Laterite – Contains aluminium

B. Terra rosa – Most suitable for roses



C. Chenozen – Richest soil

D. Black Cotton Soil – Rich in calcium carbonate

**Answer: B**



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**51.** Study of inner-relationship between organisms and their environment is

A. Ecology

B. Ecosystem

C. Phytogeography

D. Ethology

**Answer: A**



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**52.** Match the columns I and II, and choose the correct combination from the options given.

**Column I (Grain Size)****Column II (Grain)**

- |                       |                            |
|-----------------------|----------------------------|
| a. 0.2–2.00 mm        | i. Silt                    |
| b. less than 0.002 mm | ii. Clay                   |
| c. 0.02–0.2 mm        | iii. Coarse sand particles |
| d. 0.002–0.02 mm      | iv. Fine sand particles    |

A. a – iv, b – i, c – iii, d – ii

B. a – iii, b – ii, c – iv, d – i

C. a – ii, b – iii, c – vi, d – i

D. None of the above

**Answer: B**



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**53.** Tropical forests are denser due to

A. Wild animals

B. High temperature and less rainfall

C. Low temperature and excess rainfall

D. High temperature and high rain

**Answer: D**



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54. Soil carried by gravity is

A. Alluvial

B. Eluvial

C. Colluvial

D. Glacial

**Answer: C**



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55. Soil rich in Fe and Al due to excessive leaching is

A. Alluvial

B. Laterite

C. Loam

D. Both A and B

**Answer: B**



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56. Of all the species of insects known, nearly 70-80% are found in

- A. Tropical savannah
- B. Chapparal
- C. Tropical rain forests
- D. Deciduous forests

**Answer: C**



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## 57. River water deposits

A. Colluvial

B. Alluvial soil

C. Eolian

D. Sandy soil

**Answer: B**



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58. Water held tightly by soil particles as a thin film over their surface is

- A. Hygroscopic water
- B. Capillary water
- C. Chemical water
- D. Gravitational water

**Answer: A**



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**59.** What is best pH of soil for cultivation?

A. 3.4-5.4

B. 4.5-5.5

C. 5.5-6.5

D. 6.5-7.5

**Answer: C**



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**60.** Savannah is found commonly in

A. U.S.A

B. U.S.S.R

C. Australia

D. India

**Answer: C**



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**61.** Plains with snow, ice and frozen soil for most of the year are found in

A. Chaparral

B. Taiga

C. Tundra

D. Savannah

**Answer: C**



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**62.** The factor related to structure of earth surface is

A. Edaphic

B. Biotic

C. Temperature

D. Topographic

**Answer: D**



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**63.** Physical and chemical conditions of soil are studied under

A. Topographic factors

B. Edaphic factors

C. Biotic factors

D. Climatic factors

**Answer: B**



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**64.** Organisms living at the bottom of a lake are

A. Nekton

B. Benthos

C. Plankton

D. Pelagic

**Answer: B**



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**65.** Biotic factors refer to

A. Gases produced by industries

B. Nutrient deficient soils

C. Living organisms

D. Fossil fuels

**Answer: C**



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**66.** Tropical plants Prosopis, Acacia and Cappar  
is belong to

A. Evergreen forest



B. Deciduous forest

C. Grassland

D. Thorn forest

**Answer: D**



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**67. Moderate rain during summer produces**

A. Desert

B. Grassland

C. Scrub forest

D. Deciduous forest

**Answer: D**



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**68.** Species diversity is lowest in ecosystem

A. Desert

B. Tundra

C. Scrub forest

D. Deciduous forest

**Answer: B**



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**69.** Which one has the correct sequence of increasing organisational complexity?

A. Population, Community, Ecosystem and

Biome

B. Population, Community, Species and  
Ecosystem

C. Population, Variety, Commonly and  
Ecosystem

D. Species, variety, Ecosystem and  
Population

**Answer: A**



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70. Tropical rain forests are found in

A. Andamans

B. Bihar

C. Himachal Pradesh

D. Jammu and Kashmir

**Answer: A**



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71. Deciduous forests have

A. Variety of grasses

B. Broad-leaved trees

C. Narrow-leaved trees

D. Variety and crocodiles

**Answer: B**



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72. Benthic animals live

A. Deep in sea

B. Floating

C. Submerged

D. Active swimmers

**Answer: A**



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73. Edaphic factors are related to

A. Soil

B. Man

C. Animals

D. Temperature

**Answer: A**



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1. The following figure shows the major biomes of India. Identify them and find the correct match.

**Column I**

a.



b.



c.



d.



**Column II**

1. Deciduous forest

2. Sea coast

3. Tropical rain forest

4. Desert

A. a – 1, b – 3, c – 4, d – 2

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

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

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

**Answer: B**



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**Section A Topicwise Questions Topic 2 Responses  
To Abiotic Factors**

1. The organism in which body temperature changes with the ambient temperature and in aquatic animals, the osmotic concentration of the body fluid change with that of the ambient water osmotic concentration. These animals and plants are simply

A. Regulators

B. Conformers

C. Migratory

D. Hibernating

**Answer: B**



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2. Some organisms are able to maintain homeostasis by physiological (sometimes behavioural also) means which ensure constant body temperature, constant osmotic concentration, etc., are called

A. Regulators

B. Conformers

C. Migratory

D. Hibernating

**Answer: A**



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3. Which of the following organisms are indeed capable of thermoregulation and osmoregulation?

A. All birds

B. All mammals

C. Very few lower vertebrate and  
invertebrate species

D. All of the above

**Answer: D**



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4. Evolutionary biologists believe that the success of mammals is largely due to their ability to maintain a

- A. Constant body temperature
- B. Constant osmotic temperature
- C. Both A and B
- D. None of the above

**Answer: A**



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**5. Fill in the blanks:**

1. The mechanism used by most mammals to regulate their body temperature are similar to

the ones that ..a..use.

2. Human maintain a constant body temperature of ..b..

3. In summer body temperature is maintained by ..c..

4. ..d..do not have any mechanism to maintain internal temperatures.

A. a – plants, b –  $98.6^{\circ}\text{C}$ , c – sweating, d

– vertebrates

B. a – humans, b –  $37^{\circ}\text{C}$ , c – shivering, d

– plants



C. a – invertebrates, b –  $37^{\circ}\text{C}$ , c – sweating, d – plants

D. a – humans, b –  $37^{\circ}\text{C}$ , c – sweat, d – plants

**Answer: D**



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**6.** Thermoregulation is energetically expensive for many organisms particularly

A. Small animals

B. Shrews

C. Humming birds

D. All of the above

**Answer: D**



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7. Heat loss or heat gain is the function of

A. Surface area

B. Body volume

C. Body weight

D. Body size

**Answer: A**



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

a. Regulate b. Conform

c. Migrate d. Suspend

A. a and b

B. b and c

C. c and d

D. a, b, c and d

**Answer: C**



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9. Match the columns I and II, and choose the correct combination from the options given.

Column I	Column II
a. Bears	p. Diapause
b. Snail	q. Hibernation
c. Zooplankton	r. Dormancy
d. Seeds	s. Aestivation

A. a – r, b – s, c – p, d – q

B. a – q, b – p, c – s, d – r

C. a – s, b – p, c – r, d – q

D. a – q, b – s, c – p, d – r

**Answer: D**



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**10.** Various kinds of thick-walled spores which help organisms to survive unfavourable conditions and germinate on availability of suitable environment, are found in

A. Bacteria

B. Fungi

C. Lower plants/algae

D. All of the above

**Answer: D**



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**11.** In higher plants, which structure serve as means to tide over period of stress and also helping in dispersal

A. Seed

B. Vegetative

reproductive

structures/propagules

C. Both A and B

D. Spores

**Answer: C**



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**12.** Under unfavorable conditions many zooplankton species in lakes and ponds enter



A. Diapause

B. Hibernation

C. Aestivation

D. None of the above

**Answer: A**



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**13.** Annual migration does not occur in case of

A. Arc Tern

B. Salamander

C. Salmon

D. Siberian Crane

**Answer: B**



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**14. Hibernation occurring in certain animals**

A. Occasional

B. Intermittent

C. Rhythmic

D. Periodic

**Answer: D**



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## Section A Topicwise Questions Topic 3 Adaptions

1. Any attribute of the organism (morphological, physiological and behavioural)

that enables the organism to survive and reproduce in its habitat is called

- A. Homeostasis
- B. Adaptation
- C. Altitude sickness
- D. Migration

**Answer: B**



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2. In polar seas, aquatic ..a.. Like ..b..have a thick layer of fat called ..c..below their skin that acts as an ..d..and reduces loss of body heat.

A. a – fishes, b – sharks, c – clasper, d –  
conductor

B. a – mammals, b – seals, c – blubber, d –  
– insulator

C. a – fishes, b – seals, c – blubber, d –  
insulator

D. a – mammals, b – seals, c – blubber, d  
– conductor

**Answer: B**



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**3.** A person experienced altitude sickness when they go to any high altitude place like Rohtag Pass near Manali and Mansarover in China occupied Tibet, above a height

A. gt3500 m

B. gt3500 feet

C. gt500 m

D. gt500 feet

**Answer: A**



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**4.** What are the symptoms of altitude sickness?

A. Nausea

B. Fatigue

C. Heart palpitations

D. All of the above

**Answer: D**



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**5. The reason of the altitude sickness is**



- A. The low atmospheric pressure of high altitudes
- B. The high atmosphere pressure of high altitudes
- C. The low atmospheric temperature of high altitudes
- D. Both A and C

**Answer: A**



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6. In altitude sickness, the body compensates low oxygen availability by

A. Increasing red blood cell formation

B. Increasing the binding affinity of hemoglobin

C. Decreasing breathing rate

D. All of the above

**Answer: A**



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7. Read the following statements and find out the incorrect statement.

A. Microbes/archaeobacteria flourish in hot springs and deep sea hydrothermal vents where temperature far exceeds  $100^{\circ}$  C.

B. Many fish thrive in Antarctic waters where the temperature is always below zero.

C. A large variety of marine invertebrates and fish live at great depths in the ocean where the pressure could be 100 times the normal atmosphere pressure.

D. Desert lizard have physiological ability that mammals have to deal with the high temperature of their habitat.

**Answer: D**



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8. Sun loving plants are

A. Xerophytes

B. Heliophytes

C. Halophytes

D. Hydrophytes

**Answer: B**



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9. Stomato open at night in

A. Succulents

B. Xerophytes

C. Hydrophytes

D. Mesophytes

**Answer: A**



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10. Adaptive measure to protect against extreme heat by poikilotherms is

A. Hibernation

B. Sweating

C. Aestivation

D. Coiling

**Answer: C**



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11. Succulents occur in

A. Tropical rain forest

B. Tundra

C. Desert

D. Temperature deciduous forests

**Answer: C**



**Watch Video Solution**

12. Sunken stomata occur in



A. Xerophytes

B. Hydrophytes

C. Mesophytes

D. Psammophytes

**Answer: A**



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**13.** In xerophytes, photosynthesis often occurs through

A. Root

B. Modified stem

C. Stomata

D. Scaly leaves

**Answer: B**



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**14.** Warm blood animals of cold climate have small extremities. This was stated by

A. Bergman

B. Gloger

C. Dollo

D. Allen

**Answer: D**



**Watch Video Solution**

**15.** Which mammal excretes solid urine to avoid water loss?

A. Crow

B. Kangaroo Rat

C. Camel

D. Squirrel

**Answer: B**



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**16. Mechanical tissues is best developed in**

A. Hydrophytes

B. Halophytes

C. Xerophytes

D. Mesophytes

**Answer: C**



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**17. Plants adapted to grow in sand are**

A. Psammophytes

B. Sciophytes

C. Mesophytes

D. Hydrophytes

**Answer: A**



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**18.** In submergd hydrophytes, the stomata occur

A. On the lower surface

B. On the upper surface

C. No where

D. On both the surface

**Answer: C**



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**19.** Submerged hydrophytes exchange gases through

A. Stomata

B. Hydathodes

C. Lenticels

D. General surface

**Answer: D**



**Watch Video Solution**

**20.** Relatively more abundant animals of desert ecosystem are

A. Arboreal

B. Fossorial



C. Diurnal

D. Aquatic

**Answer: B**



**Watch Video Solution**

**21. Which is dominant in desert?**

A. Hyla

B. Leopard

C. Tiger

D. Lizard

**Answer: D**



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**Section A Topicwise Questions Topic 4  
Populations Population Attributes Population  
Growth And L**

**1. Which of the following example signifies a population?**

**a. All the components in a wetland**

- b. Rats in an abandoned dwelling
- c. Teakwood trees in a forest tract
- d. Bacteria in a culture plate
- e. All the animals in a forest
- f. Lotus plants in a pond

A. a, b, c, d and f

B. a, b, c, d and e

C. a, b, c, d, e and f

D. b, d, e and f

**Answer: A**



2. A population has certain attributes that an individual organism does not. These are

- a. Birth rate
- b. Death rate
- c. Sex ratio
- d. Age distribution

A. a and b

B. b and c

C. c and d

D. a, b, c and d

**Answer: D**



**Watch Video Solution**

**3. Natural selection acts at**

A. Organismic level

B. Population level

C. Species level

D. Ecosystem level

**Answer: B**



**Watch Video Solution**

4. In a pond there are 20 lotus plants last year and through reproduction 8 new plants are added, taking the current population to 28.

What is the birth rate?

A. 0.28 offspring per lotus per year

B. 0.8 offspring per lotus per year

C. 0.32 offspring per lotus per year

D. 0.4 offspring per lotus per year

**Answer: D**



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5. In a laboratory there are 40 fruitflies last week and during experiment 4 fruitflies died in a week. Calculate the death rate.

A. 0.1 individual per fruitfly per year

B. 0.36 individual per fruitfly per week

C. 0.4 individual per fruitfly per week

D. 0.1 individual per fruitfly per week

**Answer: D**



**Watch Video Solution**

6. 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**



**Watch Video Solution**

7. Match the columns I and II, and choose the correct combination from the option given.

	<b>Column I</b>		<b>Column II</b>
i.	Mortality	1.	'b'
ii.	Natality	2.	'B'
iii.	Birth rates	3.	'd'
iv.	Death rates	4.	'D'

A. i – 3, ii – 1, iii – 2, iv – 4

B. i – 4, ii – 1, iii – 2, iv – 3

C. i – 3, ii – 2, iii – 1, iv – 4

D. i – 4, ii – 2, iii – 1, iv – 3

**Answer: D**



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**8.** If the age distribution is plotted for the population, the resulting structure is called

A. Growth model

B. Growth rate

C. Age pyramid

D. Ecological pyramid

**Answer: C**



**Watch Video Solution**

9. During any ecological investigation in a population, the evaluation is in the terms of

- A. Increase in the population size
- B. Decrease in the population size
- C. Any change in the population size
- D. Constancy in the population size

**Answer: C**



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**10.** The population size is more technically called  
called

A. Population gradient

B. Population census

C. Population pressure

D. Population density

**Answer: D**



**Watch Video Solution**

**11. Population density is designated as**

A. D'

B.  $P'$

C.  $N'$

D.  $d'$

**Answer: C**



**Watch Video Solution**

**12.** The most appropriate measure of population density is generally

A. Number

B. Biomass

C. Per cent cover

D. All of the above

**Answer: A**



**Watch Video Solution**

**13.** The population density can be measured in

A. Number

B. Biomass and percent cover

C. Relative densities

D. All of the above

**Answer: D**



**Watch Video Solution**

**14.** Although total number is generally the most appropriate measure of population density, it is in some cases either meaningless or difficult to determine as in the case of



A. A density laboratory culture of bacteria  
in a petri dish

B. Comparison of population density of  
200 Parthenium plants and a single  
hyge-banyan tree with a large canopy

C. Tiger census

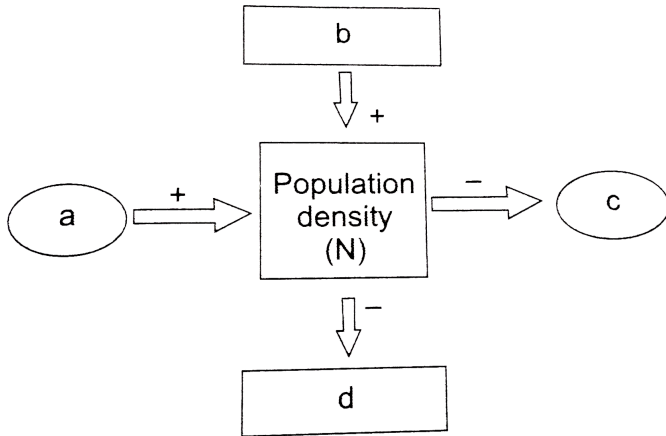
D. Both A and B

**Answer: D**



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15. Recognise the figure and find out the correct matching.



A. a – B, b – E, c – D, d – I

B. a – D, b – E, c – B, d – I

C. a – D, b – I, c – B, d – E

D. a – B, b – I, c – D, d – E

**Answer: D**



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**16.** In an area, if there are 200 Parthenium plants but only a single huge banyan tree with a large canopy, the population density is measured in terms of

- A. Number or biomass
- B. Number of per cent cover
- C. Biomass or per cent cover

D. Number, biomass or per cent cover.

**Answer: C**



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**17.** For which of the following population, the population size measured indirectly without actually counting them or seeing them?

A. Fishes

B. Tigers

C. Siberian cranes

D. All of the above

**Answer: B**



**Watch Video Solution**

**18.** The population size in nature could be as

$10^{10}$  for

A. Chlamydomonas in a pond

B. Siberian cranes at Bharatpur wetlands in any year

C. Cormorants in a wetland

D. All of the above

**Answer: B**



**View Text Solution**

**19.** The size of a population for any species is not a static parameter. It keeps changing in time, depending on various factors including

- A. Food availability
- B. Predation pressure
- C. Adverse weather
- D. All of the above

**Answer: D**



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**20.** Whatever might be the ultimate reasons, the density of a population in a given habitat

during a given period, fluctuates due to changes in

A. Two basic processes – naturally and mortality

B. Two basic processes – immigration and emigration

C. Four basic processes – natality, mortality, immigration and emigration

D. Four basic processes – birth rate, death rate, sex ratio and age distribution



**Answer: C**



**Watch Video Solution**

**21.** Match the columns I and II, and choose the correct combination from the option given.

**Column I**

**Column II**

- |                    |                  |
|--------------------|------------------|
| a. $B + I > D + E$ | 1. 'N' increases |
| b. $B + I < D + E$ | 2. 'N' decreases |
| c. $B + I = D + E$ | 3. 'N' stable    |

A. a – 1, b – 2, c – 3

B. a – 2, b – 1, c – 3

C. a – 3, b – 2, c – 1

D.  $a - 1, b - 3, c - 2$

**Answer: A**



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**22.** Give right answer of the following:

(a) Number of births during a given period in the population that are added to initial density : 1

(b) Number of deaths in the populations in a given period: 2

(c) Number of individuals of the same species that have come into the habitat from elsewhere during a given time period: 3

(d) Number of individuals who left habitat and gone elsewhere during a given time period: 4

A. 1 – mortality, 2 – natality, 3 – emigration, 4 – immigration

B. 1 – mortality, 2 – natality, 4 – emigration, 3 – immigration

C. 2 – mortality, 1 – natality, 3 – emigration, 4 – immigration

D. 2 – mortality, 1 – natality, 4 –  
emigration, 3 – immigration

**Answer: D**



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**23.** Under normal conditions, the most important factors influencing population density are

A. B and D

B. E and I

C. B, D and I

D. B, D, E and I

**Answer: A**



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**24.** If a\ new habitat is just being colonised,  
..1..may contribute more significantly to  
population growth than ..2..(where  $b$  = birth  
rate,  $E$  = Emigration,  $I$  = Irrigation).

A. 1 – b, 2 – E

B. 1 – I, 2 – b

C. 1 – I, 2 – E

D. 1 – b, 2 – I

**Answer: B**



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**25.** When resources are unlimited each species has the ability to realise fully its innate potential to grow in number as observed by

A. Lamarck while developing his theory of use and disuse of organs

B. Hugo de Vries while developing his theory of mutation

C. Darwin while developing his theory of natural selection

D. All of the above

**Answer: C**



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**26.** Match the columns I and II, and choose the correct combination from the option given.

<b>Column I</b> <b>'r' values</b>	<b>Column II</b> <b>Organism</b>
a. 0.12	1. Human population in India in 1981
b. 0.015	2. Norway rat
c. 0.0205	3. Flour beetle

A. a – 1, b – 2, c – 3

B. a – 3, b – 1, c – 2

C. a – 2, b – 3, c – 1

D. a – 3, b – 2, c – 1

**Answer: D**







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27. Who showed that even a glow growing animal like elephant could reach enormous numbers in the absence of checks?

A. Darwin

B. Lamarck

C. Wallace

D. Both A and C

**Answer: A**



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28. Which of the following is most important parameter chosen for assessing impacts of any biotic or abiotic factor on population growth?

A.  $r'$

B. 'N'

C.  $D'$

D.  $B'$

**Answer: A**



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**29.** For calculating the intrinsic rate of natural increase, one can need to know the

A. B and D

B. B, D, I and E

C. B, b, D and d

D. b and d

**Answer: D**



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**30.** The reproductive fitness of any population is also called

- A. Mendelian fitness, having high 'r' value
- B. Mendelian fitness, having low 'r' value
- C. Darwian fitness, having low 'r' value
- D. Darwinian fitness, having high 'r' value

**Answer: D**



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**31.** Ecologists suggest that life history trait of organisms have evolved in relation to the constraints imposed by the

- A. Biotic components
- B. Abiotic components
- C. Both biotic and abiotic components
- D. None of the above

**Answer: C**



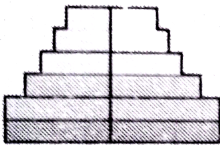
**Watch Video Solution**

**32.** Match the columns I and II, and choose the correct combination from the option given.

**Column I**

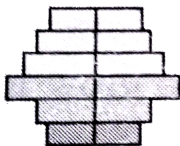
**Column II**

a.



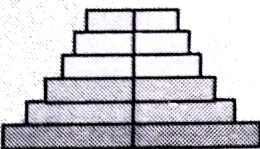
1. Stable

b.



2. Expanding

c.



3. Declining

A.  $a - 1, b - 2, c - 3$

B.  $a - 3, b - 1, c - 2$

C.  $a - 2, b - 3, c - 1$

D.  $a - 1, b - 3, c - 2$

**Answer: D**



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**33.** 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**



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**34.** 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**



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35. 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. Acutal head counts

**Answer: B**





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**36.** Which one of the following organisms reproduce sexually only once in its life time?

A. Banana plant

B. Mango

C. Tomato

D. Eucalyptus

**Answer: A**



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

A. Absolute density

B. Regional Density

C. Relative Density

D. Niche density

**Answer: D**



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**38.** After exponential increase, population becomes stagnant. The growth curve is

A. J-Shaped

B. S-Shaped

C. Fluctuating

D. Circular

**Answer: B**



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**39.** A force that acts against maximum population growth is

- A. Population pressure
- B. Carrying capacity
- C. Saturation point
- D. Environmental resistance

**Answer: D**



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40. Biggest flower belongs to a plant which is

- A. Partial root parasite
- B. Partial stem parasite
- C. Total stem parasite
- D. Total root parasite

**Answer: D**



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**41.** 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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42. 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**



**Watch Video Solution**

**43.** Permanent decrease in population would occur due to

A. Migration

B. Natality

C. Emigration

D. Mortality

**Answer: D**



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**44.** Match the columns I and II, and choose the correct combination from the option given.

**Column I**

- a. Breed only once in life time
- b. Breed many times in their lifetime
- c. Produce large number of small sized offsprings
- d. Produce small number of large-sized offsprings

**Column II**

- 1. Bird and mammals
- 2. Oysters and pelagic fishes
- 3. Bamboo
- 4. Pacific salmon fish

A. a – 3, b – 1, c – 2, d – 4

B. a – 4, b – 1, c – 4, d – 3

C. a – 3, b – 1, c – 2, d – 1

D. a – 3 and 4, b – 1, c – 2, d – 1

**Answer: D**



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**45.** Scholars caught marked and released 80 fishes in a pond. Later 100 fishes were caught at random. 40 of them were marked. The number of fishes in the pond is

A. 400

B. 200

C. 100

D. 50

**Answer: B**



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**46.** At asymptote stage, the population is

- A. Stabilised
- B. Increasing
- C. Decreasing
- D. Changing

**Answer: A**



[View Text Solution](#)

47. Sigmoid curve is

- A. Rate of transportation
- B. Rate of respiration
- C. Rate of photosynthesis
- D. Growth of population

**Answer: D**



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**48.** Proportion of young individuals is highest  
in case of

A. Declining population

B. Stable population

C. Both A and B

D. Expanding population

**Answer: D**



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**49.** Individuals of a species which occur in a particular area constitute

A. Flora

B. Fauna

C. Population

D. Flora and fauna

**Answer: C**



**Watch Video Solution**



50. Abundance of a species population within its habitat is

- A. Absolute density
- B. Regional density
- C. Relative density
- D. Niche density

**Answer: D**



**Watch Video Solution**

51. Two opposite forces operating in growth and development of every population. One of them has ability to reproduce at a given rate.

The opposing force is

A. Morbidity

B. Fecundity

C. Biotic potential

D. Environmental resistance

**Answer: D**



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52. Population where pre-reproductive animals occur in large number is

- A. Declining
- B. Stable
- C. Fluctuating
- D. Growing

**Answer: D**



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**53.** Increase in number of individuals in a population represents

A. Natality

B. Mortality

C. Density

D. Diversity

**Answer: A**



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## 54. Natality is

A. Total number of individuals present per unit area at a given time

B. Increase in number of individuals in a population under given environmental conditions

C. Loss of individuals due to death in a population under environmental conditions

D. Movement of individuals into and out of population.

**Answer: B**



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**55.** Geometric reproduction of age structure is a characteristic of

A. Biotic community

B. Population

C. Ecosystem

D. Landscape

**Answer: B**



**Watch Video Solution**

**56.** In change in population size,  $N_t = N_0 + B +$

I - D - E. What do I, B, D stand for?

A. Immigration, mortality, natality

B. Immigration, natality, mortality

C. Emigration, natality, mortality

D. Mortality, natality and immigration

**Answer: B**



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**Section A Topicwise Questions Topic 5**  
**Population Interactions**

1. Which of the following natural habitat is inhabitat just by a single species?



- A. A pond
- B. A dense forest
- C. A desert/Tundra
- D. Can't possible

**Answer: D**



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2. In nature, plants, animals and microbes interact in various ways to form a/an

A. Population

B. Community

C. Ecosystem

D. Biome

**Answer: B**



**Watch Video Solution**

**3.** The interacting species (A and B) live closely together in

A. Predation, parasitism and competition

B. Mutualism, competition and amensalism

C. Predation, competition and commensalism

D. Predation, parasitism and commensalism

**Answer: D**



**Watch Video Solution**

4. Read the following statements and find out the incorrect statements.

a. Predation is nature's way of transferring to higher trophic levels the energy fixed by plants

b. Prey keep predator population under control

c. Biological control methods adopted in agricultural pest control are based on the ability of the prey to regulate the predator population

d. Predators help in maintaining species diversity in a community by inducing the

intensity of competition among competing  
prey species

A. a and b

B. b and c

C. b, c and d

D. None of the above

**Answer: C**



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5. The prickly pear cactus in the entry 1920's introduced into

A. Americal Pacific Coast

B. Rocky sea coasts of Scotland

C. Galapagos islands

D. Australia

**Answer: D**



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6. Match the columns I and II, and choose the correct combination from the options given.

	<b>Column I</b>	<b>Column II</b>
a.	'+'	1. Detrimental
b.	'−'	2. Neutral
c.	'0'	3. Beneficial

A. a − 1, b − 2, c − 3

B. a − 3, b − 1, c − 2

C. a − 2, b − 3, c − 1

D. a − 2, b − 1, c − 2

**Answer: B**



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7. In the rocky communities of the American Pacific Coast which is an important predator

- A. Barnacle Balanus
- B. Barnacle Chthamalus
- C. Both A and B
- D. Starfish Pisaster

**Answer: D**



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8. In a field experiment, when all the starfish *Pisaster* were removed from an enclosed intertidal area, more than ..a..species of ..b... becomes extinct within ..c...because of ...d...

A. a – 200, b – vertebrates, c – a year, d  
– interspecific predation

B. a – 10, b – invertebrates, c – a decade,  
d – interspecific predation

C. a – 10, b – invertebrates, c – a decade,

d – interspecific competition

D. a – 10, b – invertebrates, c – a year, d

– interspecific competition.

**Answer: D**



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**9.** The monarch butterfly is highly distateful to its predator (bird) because of a special

chemical present in its body. The butterfly acquires this chemical during its

A. Larval stage by feeding on a poisonous seed

B. Caterpillar stage by feeding on a poisonous seed

C. Caterpillar stage by feeding on a poisonous weed

D. Any of the above

**Answer: C**



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10. How many insects are known to be phytophagous?

A. 0.25

B. 0.5

C. 0.32

D. 0.18

**Answer: A**



11. Match the columns I and II, and choose the correct combination from the option given.

Column I	Column II
a. Camouflaged	1. <i>Acacia</i>
b. Distasteful	2. <i>Calotropis</i>
c. Thorns	3. Monarch butterfly
d. Cardiac glycosides	4. Frogs

A. a – 4, b – 3, c – 1, d – 2

B. a – 3, b – 4, c – 2, d – 1

C. a – 4, b – 2, c – 1, d – 3

D. a – 3, b – 4, c – 1, d – 2

**Answer: A**



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**12.** In some shallow South American lakes visiting flamingoes and resident fishes compete for their common food, the

A. Phytoplankton

B. Zooplankton

C. Insects

D. Both A and B

**Answer: B**



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**13.** If feeding efficiency of one species might be reduced due to the interfering and inhibitory presence of the other species, even if resources (food and space) are abundant then it is called

A. Resource partitioning

B. Competitive release

C. Interference competition

D. Competitive exclusion

**Answer: C**



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**14.** The process in which the fitness of one species (measured in terms of 'r') is significantly lower in the presence of another species, is called



A. Predation

B. Parasitism

C. Commensalism

D. Competition

**Answer: D**



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**15.** Abingdon tortoise in Galapagos Islands became extinct within ...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 – goats, 3 – goats

D. 1 – a decade, 2 – goats, 3 – goats

**Answer: D**



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16. 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**



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17. A species whose distribution is restricted to a small geographical area because of the presence of a competitively superior species, is found to expand its distributional range dramatically when the competing species is experimentally removed. This is the observation of

A. Resource partitioning

B. Competitive release

C. Interference competition

## D. Competitive exclusion

**Answer: B**



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**18.** Two closely related species competing for the same resources cannot co-exist indefinitely and the competitively inferior one will be eliminated eventually. This is the conclusion of

A. Connell's elegant field experiment

B. Gause's Competitive Exclusion Principle

C. MacArthur experiment

D. Competitive release

**Answer: B**



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**19.** Match the columns I and II, and choose the correct combination from the option given.

**Column I****Column II**

- |              |              |
|--------------|--------------|
| a. Connell   | 1. Exclusion |
| b. MacArthur | 2. Barnacle  |
| c. Gause     | 3. Warblers  |

A. a – 1, b – 2, c – 3

B. a – 3, b – 1, c – 2

C. a – 1, b – 3, c – 2

D. a – 2, b – 3, c – 1

**Answer: D**



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20. Most recent studies point out that species facing competition might evolve mechanisms that promote co-existence rather than exclusion. One such mechanism is

- A. Resource partitioning
- B. Competitive release
- C. Interference competition
- D. All of the above

**Answer: A**



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21. If two species compete for the same resource, they could avoid competition by

A. Choosing different times for feeding

B. Different foraging pattern

C. Behavioural difference in their foraging activities

D. All of the above

**Answer: D**



22. Who showed that five closely related species of warblers living on the same tree were able to avoid competition and co-exist due to behavioural differences in their foraging activities?

A. Gause

B. Connel

C. MacArthur

D. Verhulst – Pearl.

**Answer: C**



**View Text Solution**

**23.** In a general ...a... and ...b.. Appear to be more adversely affected by competition than ...  
C...

A. a – herbivores, b – carnivores, c –  
plants

B. b – herbivores, c – carnivores, a –  
plants

C. c – herbivores, a – carnivores, b –  
plants

D. c – herbivores, b – carnivores, a –  
plants

**Answer: B**



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**24.** When certain exotic species are introduced into a geographical area, they become invasive

and start spreading fast because the invalid  
land does not have its natural

A. Competitors

B. Predators

C. Parasites

D. Symbionts

**Answer: B**



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**25.** Read the following statements and find out the incorrect statement(s).

a. Parasitic mode of life ensures free lodging and meals so parasitism has evolved in so many taxonomic groups from plants to higher vertebrates/

b. Many parasites have evolved to be host specific, i.e. they can parasitise only a single species of host.

c. The life-cycle of parasites are often complex, involving one or two intermediate host or vectors to facilitate parasitisation of its

secondary host.

d. All parasites harm the host.

e. Lice on dogs and ticks on humans are familiar examples of ectoparasites.

A. a, b and c

B. b, c and d

C. c, d and e

D. a, b and d

**Answer: C**



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26. The human liver fluke belongs to class.

A. Cestoda

B. Trematoda

C. Gestoda

D. Turbellaria

**Answer: B**



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27. Match the columns and choose the correct options.

Column I	Column II
a. Mutualism	p. Ticks on dogs
b. Commensalism	q. <i>Balanus</i> and <i>Chthamalus</i>
c. Parasitism	r. Sparrow eating any seed
d. Competition	s. Orchid epiphyte on mango branch
e. Predation	t. <i>Ophrys</i> and bee

A. a – t, b – s, c – p, d – q, e – r

B. a – q, b – p, c – t, d – s, e – r

C. a – r, b – q, c – p, d – t, e – s

D. a – s, b – r, c – q, d – p, e – t

**Answer: A**



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28. To complete its life-cycle human liver fluke depends on

A. One intermediate host – snail

B. One intermediate host – snail

C. Two intermediate hosts – snail and sheep

D. Two intermediate hosts – snail and fish

**Answer: D**



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**29.** What is the effect of the parasite on host?

A. Parasite may reduce the survival, growth and reproduction of the host

B. Parasite reduce the population density of host

C. Parasite may render the host more vulnerable to predation by making it physically weak

D. All of the above

**Answer: D**



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**30.** Many marine fishes are infested with ectoparasitic

A. Barnacles

B. Copepods

C. Ticks

D. Mites

**Answer: B**



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**31.** The breeding season of koel (cuckoo) and crow is

A. Spring to summer

B. Winter to spring

C. Summer to winter

D. Winter to summer

**Answer: A**



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**32.** In case of blood parasitism, the host and parasite respectively are

A. Crow and koel

B. Koel and crow

C. Both A and B conditions are possible

D. Can't be predicted

**Answer: A**



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**33.** The most spectacular and evolutionary fascinating examples of mutualism are found in

A. Sea anemone and clown fish relationship

B. Barnacle and whale relationships

C. Plant – animal relationships

D. All of the above

**Answer: C**



**Watch Video Solution**

**34.** Plants offer rewards or fees to send dispersers in the form of



A. Nectar

B. Pollen grain

C. Juicy and nutritious fruits

D. All of the above

**Answer: C**



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**35.** Tight one-to-one relationship between plant and pollinator is found in

A. Fig and wasp

B. Yucca and moth

C. Amorphophallus and pollinator

D. All of the above

**Answer: D**



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**36.** 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**



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**37.** Which of the following plants do not offer reward and employ sexual deceit to get pollination done by a species of bee?

A. Ophrys species

B. Mediterranean orchid

C. Pronuba

D. Both A and B

**Answer: D**



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**38.** Which part of the Ophrys flower bears an uncanny resemblance to the female of the bee in size, colour and markings?

A. Sepal

B. Petal

C. Stamen

D. Both A and B

**Answer: B**



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**39.** The Ophrys is pollinated by the phenomenon of the

A. Camouflaging

B. Mimicry

C. Resource partitioning

D. Parasitism

**Answer: B**



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**40.** Recognise the table and find out the correct statement.

## Interspecific population interactions

Species A	Species B	Nature of interaction
+	+	a
-	-	b
+(Predator)	-(Prey)	d
+(Parasite)	-(Host)	c
+	0	e
-	0	f

A. a – competition, b – predation, c – commensalism, d – parasitism, e – amensalism, f – mutualism

B. b – competition, c – predation, f – commensalism, d – parasitism, e – amensalism, a – mutualism

C. b – competition, d – predation, e –  
commensalism, c – parasitism, f –  
amensalism, a – mutualism

D. b – competition, d – predation, c –  
commensalism, e – parasitism, f –  
amensalism, a – mutualism

**Answer: C**



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41. A group of animals of a species that live in a well-defined geographical area, share or compete for similar resources, potentially interbreed and thus constitute a

A. Community

B. Population

C. Biome

D. Ecosystem

**Answer: B**



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42. 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, the prey population will become extinct
- D. Tiger is an example of predator

**Answer: C**



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**43.** Match the columns and find the correct option.

<b>Interaction</b>	<b>Example</b>
1. Predation	a. <i>Cuscuta</i> and Hedge plants
2. Commensalism	b. <i>Balanus</i> and <i>Chthamalus</i>
3. Parasitism	c. Cactus and Moth
4. Competition	d. <i>Orchid</i> 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**



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**44.** Select the incorrect statement.

A. Orchid epiphytic on Mango is commensal.

B. Bird laying eggs in the nest of the another for incubation shows brood parasitism.

C. Most animals and plants maintain a constant internal temperature.

D. Small animals are rare in polar regions

**Answer: C**



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**45.** The phenomenon of one organism being benefitted with out affecting the other is

- A. Scavenging
- B. Amensalism
- C. Commensalism
- D. Sumbiosis

**Answer: C**



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**46.** Gause law is related to

A. Predation

B. Parasitism

C. Competitive exclusion

D. Coexistence

**Answer: C**



**Watch Video Solution**

**47.** There are two ways of exploitation. One way is parasitism, the other one is

A. Antibiosis

B. Competition

C. Predation

D. Commensalism

**Answer: C**



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48. Which are correct categories with one exception?

Items	Category	Exception
(A) UAA, UAG, UGA	Stop codons	UAG
(B) Typhoid, Pneumonia, Diphtheria	Bacterial diseases	Diphtheria
(C) <i>Plasmodium</i> , <i>Cuscuta</i> , <i>Trypanosoma</i>	Protozoan parasites	<i>Cuscuta</i>
(D) Kangaroo, Koala, Wombat	Australian marsupials	Wombat



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49. Browsing of animals is an example of

A. Commensalism

B. Predation

C. Parasitism

D. Amensalism

**Answer: B**



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**50.** Alien species introduced into lake Victoria that was responsible for the extinction of cichlid species is

A. African Catfish

B. Murrels

C. Water Hyacinth

D. Nile perch

**Answer: D**



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**51.** One species is harmed whereas the other is unaffected. Such type of interaction is called

A. Commensalism

B. Amensalism

C. Parasitism

D. Predation

**Answer: B**



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**52.** Parasitic phanerogams absorb water and solute from host plant by

A. Mycorrhiza

B. Clinging roots

C. Adventitious roots

D. Haustoria

**Answer: D**



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**53.** Zoochlorellae in Hydra produces an association called

A. Commensalism

B. Parasitism

C. Mutualism

D. Predation

**Answer: C**



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**54.** In commensalism

A. Both partners are benefited

B. Both partners are harmed

C. Weaker is benefitted while stronger  
unharmed

D. None of the above

**Answer: C**



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**55. Which statements are true?**

(a) One is benefitted and other unaffected in mutualism.

(b) Both partners are benefitted in

commensalism.

(c ) One kills and feeds on another in predation.

(d) Both partners are benefitted in symbiosis.

A. a and b only

B. a and c only

C. b and c only

D. c and d only

**Answer: D**



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**56.** Animals have innate ability to escape from predation. Select the incorrect example.

A. Colour change in Chameleon

B. Enlargement of body by swallowing air  
in Puffer fish

C. Poison fangs of snakes

D. Melanin in moths

**Answer: C**



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57. Match the columns and choose the correct combination.

Column I	Column II
(i) Mutualism	(p) Beneficial to a, no effect for b
(ii) Competition	(q) Beneficial to both a and b
(iii) Parasitism	(r) Beneficial to a and inhibitory for b
(iv) Predation	(s) Beneficial to a and harmful to b
(v) Commensalism	(t) Harmful to both a and b

A. i – t, ii – s, iii – p, iv – q, v – r

B. i – p, ii – r, iii – q, iv – t, v – s

C. i – q, ii – t, iii – s, iv – r, v – p

D. i – r, ii – p, iii – q, iv – s, v – t

**Answer: C**



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**58.** A plant growing on another plant without drawing any nourishment is

A. Ectoparasite

B. Epiphyte

C. Symbiont

D. Saprophyte

**Answer: B**



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**59. Community is**

A. Group of independent, interacting

populations of same species

B. Group of independent and interacting

populations of same species in specific

area

C. Group of independent and interacting populations of different species in a specific area

D. Group of independent and interacting populations of different species

**Answer: C**



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60. Two different types of plant species living together at a place represent

A. Plant coenosis

B. Zoocoenosis

C. Plant community

D. Ecotype

**Answer: C**



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## Section B Assertion Reasoning Questions

1. Assertion: At any level of biological organisation, there are two types of questions arises - 'how type' and 'why type'.

Reason: 'How type' questions seek the significance of the process while the 'why type', questions seek the mechanisms behind the process.

A. If both assertion and reason are true  
and the reason is the correct

explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: C**



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2. Assertion: Ecology is basically concerned with four levels of biological organisations.

Reason: These are-organisms, populations, communities and biomes.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: C**



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**3. Assertion:** On planet Earth, life exist not just in a few favourable habitats but even in extreme and harsh habitats such as according Rajasthan deserty, perpetually rain-soaked Meghalaya forest, deep ocean trenches,

torrential streams, permafrost polar regions, high mountain tops, streams, permafrost polar regions, high mountains tops, boiling thermal springs, and stinking compost pits, etc.

Reason: Even our intestine is a unique habitat for hundreds of species of microbes.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

4. Assertion: Temperature, water, light and soil are major abiotic/physico-chemical factors.

Reason: Water is most ecologically relevant environment factor.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: C**



**Watch Video Solution**

5. Assertion: Temperature ranges from subzero levels in polar areas to  $> 50^{\circ}\text{C}$  in tropical deserts in summer and high altitudes.

Reason: The salt concentrations is measured as salinity in parts per million.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: D**



**Watch Video Solution**

**6. Assertion:** For aquatic organisms the quality (chemical composition and pH) of water becomes important.

**Reason:** Many freshwater of light on land is closely linked with that of temperature.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.



B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

7. Assertion: The availability of light on land is closely linked with that of temperature.

Reason: Sun is the source for both light and temperature.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**8.** Assertion: 99 per cent animals and nearly all plants are conformers.

Reason: During the course of evolution, the costs and benefits of maintaining a constant

internal environment are taken into consideration.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**9. Assertion:** Small animals tend to lose body heat very fast when it is cold outside.

**Reason:** Small animals have a larger surface area relative to their volume.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**10. Assertion:** Very small animals are rarely found in polar regions.

**Reason:** Smaller animals have larger area to volume ratio, they tend to lose heat very fast when it is cold outside then they have to expend much energy to generate body heat through metabolism.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



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**11. Assertion:** Many adaptations have evolved over a long evolutionary time and are genetically fixed.

**Reason:** Some organisms coping with extremes in the environment able to respond through certain physiological and behavioural adjustments.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

**12. Assertion:** Many tribes live in the high altitude of Himalayans have a higher red blood cell count or total hemoglobin than people living in the plains.

**Reason:** At high altitude, body does not get enough oxygen.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**13.** Assertion: Population ecology is an important area of ecology.

Reason: Populations ecology links ecology to population genetics and evolutions.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**14.** Assertion: The term interbonding implies the sexual reproduction.

Reason: A group of individuals resulting from even asexual reproduction is also generally

considered a populations for the purpose of ecological studies.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

**15. Assertion:** In a population birth rates refers to per capital birth and death rate refers to per capita deaths.

**Reason:** The birth and death rates expressed in change in numbers (increase or decrease) with respect to the members of the populations.



A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



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**16. Assertion:** For human populations, the age pyramids generally show age distribution of males and females in a combined diagram.

**Reason:** The shape of age pyramid reflects the growth status of the populations, whether it is growing, stable or declining.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



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17. Assertion: Total number is an easily adoptable measure if the populations is huge and counting is impossible or very time consuming.

Reason: In a dense laboratory culture of bacteria in a petri dish the best measures to report its density is number or biomass.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: D**



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**18. Assertion:** The number of fish caught per trap is good enough measure of its populations density in the lake.

**Reason:** For certain ecological investigations, there is no need to know the absolute populations densities, relative densities serve the purpose equally well.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**19. Assertion:** Logistic growth model is considered a more realistic as compared to exponential growth model.

**Reason:** Resources for growth for most animal population are finite and becomes limiting sooner or later.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.



B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**20. Assertion:** In nature, animals, plants and microbes do not and cannot live in isolation.

**Reason:** For any species, the minimal requirement is one more species on which it can feed.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of

the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**21. Assertion:** The problem of predator unlike animals.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**View Text Solution**

**22.** Assertion: Nicotine, caffeine, quinine, strychnine and opium are produced by plants actually as defences against grazers and browsers.

Reason: Thorns of Aacia and Cactus are most common physiological of defence.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: C**



**Watch Video Solution**

**23.** Assertion: Predators in nature are 'prudent'.

Reason: If a predator is too efficient and overexploits its prey, then the prey might become extinct and following it, the predator will also become extinct for lack of food.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



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**24.** Assertion: Prey species have evolved various defences to lessen the impact of predation.

Reason: Some species of insects and frogs are cryptically-coloured (camouflaged) to avoid being detected easily by the predator

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

**25.** Assertion: The female mosquito is not considered a parasite.

Reason: The female mosquito needs out blood for reproduction.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

**26.** Assertion: The life cycles of endoparasites are more complex.

Reason: The morphological and anatomical feature of endoparasites are simple while emphasizing their reproductive potential.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

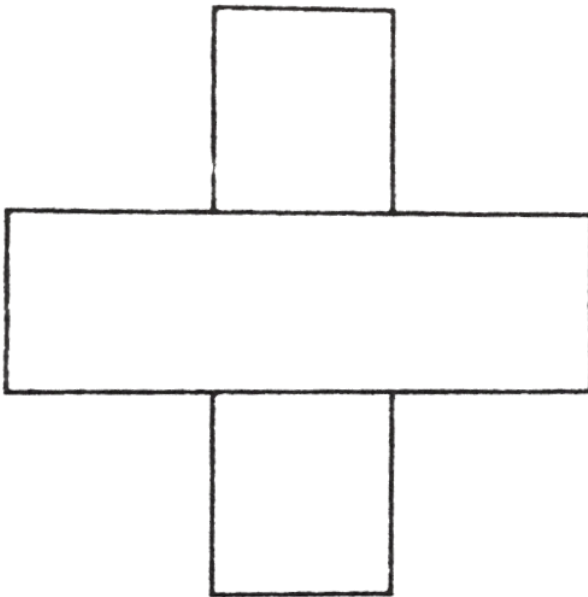
**Answer: B**



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## Section C Previous Years Examination Questions

1. Which type of human population is represented by this age pyramid?



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

**Answer: A**



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**Section D Chapter End Test**

1. Wettest region of India is

A. Assam

B. Meghalaya

C. U.P.

D. Rajasthan

**Answer: B**



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2. Biome with broad-leaved resinous fire resistance drought enduring plants is

A. Savannah

B. Steppes

C. Chappral

D. Decidious forest

**Answer: C**



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3. Plants growing on sandstone are

A. Psammophytes

B. Oxylophytes

C. Lithophytes

D. Phanerophytes.

**Answer: C**



**Watch Video Solution**

4. Soil salinity is measured by

A. Prometer

B. Potometer

C. Calporimeter

D. Conductivity meter

**Answer: D**



**Watch Video Solution**

**5. Grasslands of Asia are**

A. Savannah

B. Pampas

C. Steppes

D. Veldt

**Answer: C**



**Watch Video Solution**

**6.** Which one of the following is a partial root parasite?

A. Balanophora

B. Santalum

C. Viscum

D. Cuscutta

**Answer: B**



**Watch Video Solution**

7. Population was termed as self-perpetuating unit by

A. Malthus

B. Spencer

C. Mobius

D. Odum

**Answer: A**



**Watch Video Solution**

**8. Viscum is**

A. Partial root parasite

B. Partial stem parasite

C. Total stem parasite

D. Total root parasite

**Answer: B**



**Watch Video Solution**

9. Instrument used for measuring wind velocity is

A. Anemometer

B. Hydrometer

C. Lactometer

D. Photometer

**Answer: A**



**Watch Video Solution**

**10. An obligate root parasite is**

A. Viscum

B. Striga

C. Loranthus



D. Rafflesia

**Answer: D**



**Watch Video Solution**

**11.** Plants growing under a average conditions of temperature and moisture are

A. Hygrophytes

B. Mesophytes

C. Hydrophytes

D. Epiphytes.

**Answer: B**



**Watch Video Solution**

**12. Halophyte are**

A. Salt resistant

B. Fire resistant

C. Cold resistant

D. Sand loving

**Answer: A**



**Watch Video Solution**

**13. Which pair is mismatched?**

A. Tundra-Permafrost

B. Savannah-Acacia trees

C. Praires-Epiphytes

D. Coniferous forest-Evergreen trees

**Answer: C**



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14. Which one is a correct matching of plant, its habitat and the forest type where it normally occurs

A. Prosopis-tree-scrub

B. Saccharum-grass-forest

C. Shorea robusta-herb-tropical rain forest

D. Acacia catechu-tree-coniferous forest

**Answer: A**



[Watch Video Solution](#)

15. Plants growing in saline soil are called

- A. Xerophytes
- B. halophytes
- C. Heliophytes
- D. Hydrophytes.

**Answer: B**



[Watch Video Solution](#)

**16.** Praying mantis is a good example of :

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

**Answer: A**



**Watch Video Solution**

17. Santalum album/Sandal-wood Tree is

- A. Partial root parasite
- B. Partial stem parasite
- C. Total stem parasite
- D. Total root parasite

**Answer: A**



**Watch Video Solution**

**18.** Psammophytes are plants growing on soil

A. Alluvial

B. Sandy

C. Alkaline

D. Acidic

**Answer: B**



**Watch Video Solution**



19. Total root parasite is

A. Rafflesia

B. Cassytha

C. Viscum

D. Loranthus

**Answer: A**



**Watch Video Solution**

20. Consequences of population explosion were explained for the first time by

A. Darwin

B. De Vries

C. Lamarck

D. Malthus

**Answer: D**



**Watch Video Solution**

21. Aerenchyma occurs in

A. Epiphytes

B. halophytes

C. Hydrophytes

D. Xerophytes

**Answer: C**



**Watch Video Solution**

22. Ephemerals are a type of xerophytes

A. Drought escaping

B. Drought resisting

C. Drought enduring

D. None of the above

**Answer: A**



**Watch Video Solution**

**23.** Association between Barnacles and whale/Limulus is

A. Symbiosis

B. Commensalism

C. Parasitism

D. Predatorship

**Answer: B**



**Watch Video Solution**

**24. Plants growing on sandy soils are**

A. Xerophytes

B. Psammophytes

C. Psychrophytes

D. Lithophytes

**Answer: B**



**Watch Video Solution**

**25.** Maximum survival and reproductive capacity shown in population under optimal conditions is

A. Carrying capacity

B. Natality

C. Biotic potential

D. Vitality

**Answer: C**



**Watch Video Solution**

**26.** An unrestricted or maximum reproductive capacity called

A. Birth rate

B. Biotic potential

C. Carrying capacity

D. Fertility

**Answer: B**



**Watch Video Solution**

**27.** Actively moving organisms in aquatic ecosystem are



A. Benthos

B. Zooplankton

C. Phytoplankton

D. Nekton

**Answer: D**



**Watch Video Solution**

**28.** Resemblance of an organisms to another for protection and hiding is

A. Camouflage

B. Mimicry

C. Predation

D. Adaption

**Answer: B**



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**29.** Best method to solve population problem in India is

A. increase food production

B. Increase medical facilities

C. Reduce birth rate

D. Conserve natural resources.

**Answer: C**



**Watch Video Solution**

**30. Hydrilla is**

A. Phytoplankton

B. Floating hydrophyte

C. Submerged hydrophyte

D. Amphibian

**Answer: C**



**Watch Video Solution**

**31.** Fresh water bony fishes maintain water balance by

A. Excreting hypotonic urine

B. Excreting wastes as uric acid

C. Drinking small amount of water

D. Excreting salt across their gills

**Answer: A**



**Watch Video Solution**

**32.** A class with the largest number of animals

is

A. Mammalia

B. Insecta

C. Reptilia

D. Pisces.

**Answer: B**



**Watch Video Solution**

**33.** In *Opuntia*, the spines are modifications of

A. Stems

B. Leaves

C. Roots

D. None of the above

**Answer: B**



**Watch Video Solution**

**34.** Leaves are changed into spines in xerophytic structures called

A. Phyllode

B. Chadode

C. Phylloclade

D. All of the above.

**Answer: C**



**Watch Video Solution**

**35. Which among the following is monocarpic?**

A. Coconut

B. Apple

C. Bamboo/Agave



D. Mango

**Answer: C**



**Watch Video Solution**

**36.** Which two of the following changes (A-B) usually tend to occur in the plain dwellers when they move to high altitudes (3500 m or more )

(A) Increase in red blood cell size

(B) Increase in red blood cell production

( C) Increased breathing rate

(D) Increase in thrombocyte count

A. c and d

B. a and d

C. a and b

D. b and c

**Answer: D**



**Watch Video Solution**

37. Mountain sickness at high altitude is due to

- A. Excess  $CO_2$  in blood
- B. Decrease  $CO_2$  in air
- C. Decrease partial pressure of oxygen.
- D. Decrease efficiency of haemoglobin

**Answer: C**



**Watch Video Solution**

**38.** At high altitude , RBC of human blood will

- A. Increase in number
- B. Decrease in number
- C. Decrease in size
- D. Increase in size

**Answer: A**



**Watch Video Solution**

**39.** People living at sea level have around 5 million RBC per cubic millimetre of their blood whereas those living at an altitude of 5400 metres have around 8 million. This is because at high altitude.

A. There is more UV radiation which enhances RBCs production.

B. People eat more nutritive food which helps in formation of more RBCs

C. People get pollution free air to breathe with more oxygen becoming available

D. Atmospheric  $O_2$  level is less so that more RBCs are needed to absorb the required amount of  $O_2$  to survive.

**Answer: D**



**Watch Video Solution**

**40.** Many fresh water animals cannot live for long in sea water and vice versa mainly because of

- A. Change in nitrogen level
- B. Change in thermal tolerance
- C. Variation in light intensity
- D. Osmotic problems

**Answer: D**



**Watch Video Solution**

**41.** Which are true about the following statements about kangaroo rats?

a) They have dark colour, high rate of reproduction and excrete solid urine.

b) They do not drink water, breathe at slow rate, and have their body covered with thick hair.

c) They feed on dry seeds and do not require drinking water

d) They excrete very concentrated urine and do not use water to regulate body temperature



A. c and a

B. a and b

C. c and d

D. b and c

**Answer: C**



**View Text Solution**

**42. Water holding capacity is highest in**

A. Sandy soil

B. Slit soil

C. Clay soil

D. Loam soil

**Answer: C**



**Watch Video Solution**

**43.** Soil water available to roots is

A. Surface water

B. Hygroscopic water

C. Gravitational water

D. Capillary water

**Answer: D**



**Watch Video Solution**

**44.** During extreme aridity, Desert Rat

A. Stores water

B. Uses metabolic water

C. Saves water

D. Does not use water

**Answer: B**



**Watch Video Solution**

**45.** 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**



**Watch Video Solution**

**46.** Tropical forests occur in India

A. Jammu and Kashmir

B. Rajasthan

C. Kerala and Assam

D. These forests do not occur in India

**Answer: C**



**Watch Video Solution**

**47. Carrying capacity is determined by**

A. Limiting resources

B. Mortality rate

C. Natality rate

D. Predation

**Answer: A**



Watch Video Solution

**48.** Each environment can support a limited population depending upon its

A. Biotic potential

B. Carrying capacity

C. Natality

D. Reproductive potential

**Answer: B**



**49.** Population day is

A. 5th may

B. 11th July

C. 43800

D. 21st August

**Answer: B**





50. Competition is the most severe between two

A. Closely related species growing in different niches

B. Closely related species growing in the same habitat

C. Distantly related species growing in the same habitat

D. Distantly related species growing in different niches.

**Answer: B**



**Watch Video Solution**

**Others**

1.  $A_0$  layer is rich in

A. Litter

B. Minerals

C. Leachates

D. Humus

**Answer: D**



**Watch Video Solution**

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

A. Macrophytes

B. Microphytes

C. Phagophytes

## D. Saprophytes

**Answer: A**



**Watch Video Solution**

**3.** Population of an insect species increases explosively during any season and then disappears at the end of the season. It shows

**A.** Food plants mature and die at the end of rainy season

B. Population of predators increases enormously

C. Population growth curve is J-shaped

D. Population growth curve is S-shaped

**Answer: C**



**Watch Video Solution**

4. Study of inter-relationship between a species/individuals and its environment in all stages of its life cycle is

A. Synecology

B. Forest Ecology

C. Autecology

D. Ecology

**Answer: C**



**Watch Video Solution**

5. Study of inter-relationship between an entire community and its environment is

A. Autecology

B. Resource Ecology

C. Species Ecology

D. Synecology

**Answer: D**



**Watch Video Solution**

6. The sum total of the populations of the same kind of organisms constitute

A. Colony

B. Genus

C. Community

D. Species.

**Answer: D**



**Watch Video Solution**

7. *Quercus* species is the dominant component  
in



A. Temperature forest

B. Tropical rain forest

C. Alpine forest

D. Scrub forest

**Answer: A**



**Watch Video Solution**

**8. Most populous country of the world is**

A. Bangladesh

B. Indonesia

C. India

D. China

**Answer: D**



**Watch Video Solution**

**9. Roots of higher plants develop mycorrhiza for obtaining**

A. Sulphates

B. Nitrogen

C. Phosphates

D. All of the above.

**Answer: D**



**Watch Video Solution**

**10.** Small fish sticks to bottom of shark to obtain food crumbs. The association is

A. Antibiosis

B. Predation

C. Commensalism

D. Parasitism

**Answer: C**



**Watch Video Solution**

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

A. Populations

B. Ecological niche

C. Biotic community

D. Ecosystem

**Answer: C**



**Watch Video Solution**

**12.** Reduction in vascular tissue, mechanical tissue and cuticle are characteristics of

A. Mesophytes

B. Hydrophytes

C. Xerophytes

D. Epiphytes.

**Answer: B**



**Watch Video Solution**

**13. Halophyte occur in**

A. Salty soil

B. Desert

C. Near river

D. Rainy water

**Answer: A**



**Watch Video Solution**

**14.** A mutually beneficial association necessary for survival of both partners is

A. Mutualism/Symbiosis

B. Commensalism

C. Amensalism

D. Both A and B

**Answer: A**



**Watch Video Solution**

**15.** 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**



**Watch Video Solution**

**16. Soil transported by air is**

- A. Alluvial

B. Colluvial

C. Glacial

D. Eolian

**Answer: D**



**Watch Video Solution**

**17. Soil best suited for plant growth is**

A. Clay

B. Loam

C. Sandy

D. Gravel

**Answer: B**



**Watch Video Solution**

**18.** One of the following is not true for hydrophytes

A. Vessels are usually absent

B. Cuticle is poorly developed

C. Tracheids are absent

D. Air chambers are well developed

**Answer: C**



**Watch Video Solution**

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

A. Pleuston

B. Nekton

C. Plankton

D. Seston

**Answer: C**



**Watch Video Solution**

**20.** Which of the following is a xerophytic plant in which the stem is modified into a flat green and succulent structure?

A. Casuarina

B. Opuntia

C. Hydrilla

D. Acacia

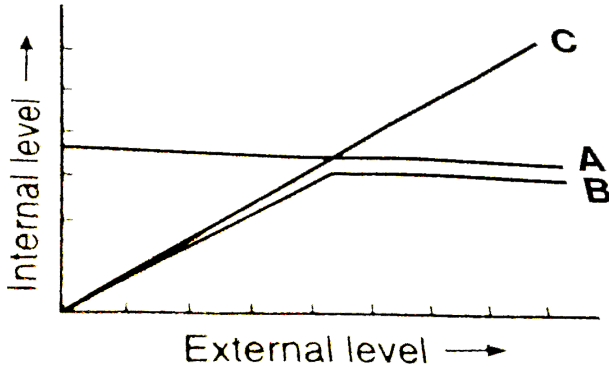
**Answer: B**



**Watch Video Solution**

**21.** The figure given below is a diagrammatic representation of response of organisms to abiotic factors. What do A, B and C represent

respectively?



A. a-Regulation, b-Partial regulator, c-

Conformer

B. a-Partial regulator, b-Regulator, c-

Conformer

C. a-Regulator, b-Conformer, c-Partial

regulator

D. a-Conformer,      b-Regulator,      c-Partial  
regulator

**Answer: C**



**Watch Video Solution**

**22.** Bell-shaped polygonal pyramid indicates.

A. High percentage of old individuals

B. Low percentage of young individuals



C. Moderate percentage of young individuals

D. Low percentage of old individuals.

**Answer: C**



**Watch Video Solution**

**23.** Rhizosphere microflora exhibits.

A. Symbiosis

B. Parasitism

C. Commensalism

D. Space parasitism

**Answer: A**



**Watch Video Solution**

**24. Biotrophic nutrition is shown by**

A. Humans

B. Invertebrates

C. Insectivorous plants

D. Saprophytic plants.

**Answer: C**



**Watch Video Solution**

**25. Which is appropriately defined?**

A. Host is an organism which provides food to another organism.

B. Amensalism is relationship in which one species is benefitted while the other is

unaffected.

C. Predator is an organism that catches and kills other organisms for food.

D. Predator is an organism which always lives inside the body of other organism and may kill it.

**Answer: C**



**Watch Video Solution**

**26.** Study statements (a-d) and select the correct ones,

a) A lion eating a deer and a sparrow feeding on grain are consumers.

b) Predators star fish, Pisaster, helps in maintaining species diversity of some invertebrates.

c) Predators ultimately lead to extinction of prey species.

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

A. c and d

B. a and d

C. a and b

D. b and c

**Answer: C**



**Watch Video Solution**

**27.** Which of the following is/are an angiospermic hydrophyte?

A. Hydrilla

B. Vallisneria

C. Zizyphus

D. Both A and B

**Answer: D**



**Watch Video Solution**

**28.** Large woody vines are more commonly found in

A. Tropical rain forests

B. Alpine forests

C. Temperate forests

D. Mangroves.

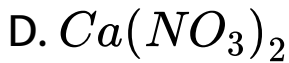
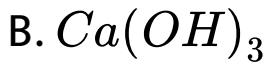
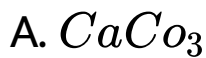
**Answer: A**



**Watch Video Solution**

**29.** Most economical and effective method of control of soil pH is application of





**Answer: A**



**Watch Video Solution**

**30.** Select the correct pair of adaptation in desert lizards.

a) Burrowing in soil to escape high

temperature.

b) Losing heat rapidly at high temperature.

c) Bask in the sun when temperature is low.

d) Insulating body with thick fatty dermis.

A. b,c

B. a,b

C. c,d

D. a,c

**Answer: D**



**Watch Video Solution**

**31.** Root cap is absent in

A. Xerophytes

B. Mesophytes

C. Hydrophytes

D. Halophytes

**Answer: C**



**Watch Video Solution**

32. Most important for determining populations growth is

A. Population size

B. Natality

C. Vital index

D. Population growth curves.

**Answer: A**



**Watch Video Solution**

**33.** Number of births per year per 1000 individuals is

A. Demography

B. Natality

C. Mortality

D. Density

**Answer: B**



**Watch Video Solution**

**34.** Which one is parasite in true sense?

A. Head Louse living on human scalp as well as laying eggs on human hair.

B. Cuckoo laying eggs in Crow's nest.

C. Female Anopheles biting and sucking blood from humans.

D. Human foetus inside uterus and drawing nourishment from mother.

**Answer: A**

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Watch Video Solution

**35.** Some organisms are tolerant to a narrow range of salinity and are termed as

- A. Euryhaline
- B. Stenohaline
- C. Neither a) or b)
- D. Saline

**Answer: B**



Watch Video Solution

**36.** Full name of professor Misra who is known as the Father of Ecology in India is

- A. Ramesh Misra
- B. Ramavtar Misra
- C. Ramekant Misra
- D. Ramdeo Misra

**Answer: D**



**Watch Video Solution**



**37.** The term "niche" of a species refers to:

- A. Specific place where an organisms lives
- B. Competitive power of an organism
- C. Specific function of an organism
- D. Specific and habitual function.

**Answer: D**



**Watch Video Solution**

**38.** Main characteristic of halophytes is

A. Sunken stomata

B. Vivipary

C. Heterophylly

D. All of the above.

**Answer: B**



**View Text Solution**

39. Population growth curve is sigmoid, if the growth pattern is

A. Logistic

B. Geometric

C. Exponential

D. Accretionary

**Answer: A**



**Watch Video Solution**

40. Which of the following is an intraspecific interaction?

- A. Amensalism
- B. Commensalism
- C. Symbiosis
- D. Cannibalism

**Answer: D**



**Watch Video Solution**

41. Orchid growing on other plants as

A. Parasite

B. Symbiont

C. Predator

D. Epiphytes.

**Answer: D**



**Watch Video Solution**

**42.** Benthic organism are affected the most by

A. Light reaching the forest floor

B. Surface turbulence of water

C. Sediment characteristics of aquatic ecosystem

D. Water - holding capacity of soil

**Answer: C**



**Watch Video Solution**

**43.** 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 populations is:

A. 5

B. Zero

C. 10

D. 15

**Answer: B**



[Watch Video Solution](#)

44. The age pyramid with broad base indicates

- A. High percentage of old individuals
- B. Low percentage of young individuals
- C. A stable population
- D. High percentage of young individuals.

**Answer: D**



[Watch Video Solution](#)



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

A. Commensalism

B. Amensalism

C. Ectoparasitism

D. Symbiosis

**Answer: D**



**Watch Video Solution**

**46.** Which one of the following is not a parasitic adaptation?

A. Development of adhesive organs

B. Loss of digestive organs

C. Loss of reproductive capacity

D. Loss of unnecessary sense organs.

**Answer: C**



**Watch Video Solution**

47. Most productive biome of India is

- A. Desert
- B. Deciduous forest
- C. Torpical Rain Forest
- D. Temperate forest

**Answer: C**



**Watch Video Solution**

**48.** Just as a person moving from Delhi to Shimla to escape the heat for the duration of hot summer, thousands of migratory birds from Siberia and other extremely cold northern regions move to:

A. Keolado National Park

B. Western Ghat

C. Meghalaya

D. Corbett National Park

**Answer: A**



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49. Which of the following is correct?

A. Population change = (Birth + Immigration) - (death + emigration)

B. Population change = (Birth + emigration) + (death + immigration)

C. Population change = (Birth + emigration) + (death - immigration)

D. Population change = (Birth - immigration) - (death + emigration)

**Answer: A**



**Watch Video Solution**

**50.** Age distribution is the characteristic of

A. Organism

B. Population

C. Community

## D. Ecosystem

**Answer: B**



**Watch Video Solution**

**51.** Which of the following is epiphytic plant species?

A. *Viscum*

B. *Cuscuta*

C. *Vanda*

D. Loranthus

**Answer: C**



**Watch Video Solution**

**52.** One species is benefitted and other is neutral. This association is called

A. Mutualism

B. Commensalism

C. Amensalism



## D. Parasitism

**Answer: B**



**Watch Video Solution**

**53.** Which of the following is an example of mutualism?

A. Abingdon tortoise in Galapago isaldn

B. Yeat and roots of plants

C. Fungi and cyanobacteria

D. Alage and cyanobacteria

**Answer: C**



**Watch Video Solution**

**54.** Which of the following shows mutualism?

A. Fig and wasp

B. Orchid growing on mango branch

C. Clown fish and Sea Anemone

D. Barnacle growing on back of whale

**Answer: A**



**Watch Video Solution**

**55.** "Two species competing for the same resources cannot co-exist indefinitely". This statement is

- A. Connell's elegant field experiment
- B. River Popper hypothesis
- C. Mac Arthur experiment
- D. Gause's competitive exclusion principle.

**Answer: D**



**Watch Video Solution**

**56. (+) and (0) interaction shown by**

A. Paraitism

B. Mutalism

C. Amensalism

D. Commensalism

**Answer: D**



[Watch Video Solution](#)

57. National tree of India is

- A. *Mangifera indica*
- B. *Azadirachta indica*
- C. *Ficus bengalensis*
- D. *Ficus religiosa*

**Answer: C**



[Watch Video Solution](#)

**58.** In which of the following interaction both partners are adversely affected ?

A. Predation

B. Parasitism

C. Mutualism

D. Competition

**Answer: D**



**Watch Video Solution**

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

A. Biotic community

B. Ecosystem

C. Population

D. Ecological niche

**Answer: A**



**Watch Video Solution**

**60.** Roots play insignificant role in absorption of water in

A. Pistia

B. Pea

C. Wheat

D. Sunflower

**Answer: A**



**Watch Video Solution**



61. Most animals are tree dwellers in a :

A. Temperate deciduous forest

B. Tropical rain forest

C. Coniferous forest

D. Thorn woodland

**Answer: B**



**Watch Video Solution**

62. The correct statement is

- A. In a population, number of births is different from birth rate
- B. A sigmoid growth curve is depiction of exponential growth
- C. In a logistic growth curve the asymptote is beyond the carrying capacity.
- D.  $r'$  is equal to the difference between number of births and number of deaths in a population.

**Answer: A**



Watch Video Solution

**63.** The adaptations in an organisms are meant for

- A. Optium primary production
- B. Optium life span
- C. Optium mobility
- D. Optimum survival and reproduction.

**Answer: D**



64. Verhulst-Pearl' is associated with the equation

A.  $\frac{dN}{dt} = rN \frac{K - N}{K}$

B.  $\frac{dN}{dt} = tN \frac{K - N}{K}$

C.  $\frac{dN}{dt} = rN \frac{K - N}{N}$

D.  $\frac{dN}{dt} = tN \frac{K - N}{N}$

**Answer: A**



**65.** Organisms which can tolerate and thrive in wide range of temperature are called

- A. Eurythermal
- B. Isothermal
- C. Homothermal
- D. Stenothermal

**Answer: A**



**Watch Video Solution**

66. The Verhulst-Pearl logistic growth is described to the equation  $\frac{dN}{dt} = rN \frac{K - N}{K}$ , in this K stand

- A. Temperature in degree Kelvin
- B. Intrinsic rate of natural increase
- C. Carrying capacity
- D. Population density

**Answer: C**



**Watch Video Solution**

67. A succulent xerophyte is

A. Capparis

B. Calotropis

C. Agave

D. None of the above

**Answer: C**



**Watch Video Solution**

**68.** Germination of seed inside the fruit which is still attached to the parent plant is known as

A. Parthenocarpy

B. Parasitism

C. Commensalism

D. Vivipary

**Answer: D**



**Watch Video Solution**



69. Unlike in other plants, leaves of cactus serve the twin purpose of

A. Photosynthesis and transpiration

B. Transpiration and vegetative propagation

C. Protection and water conservation

D. Water storage and photosynthesis

**Answer: C**



**Watch Video Solution**

70. Sigmoid/logistic growth curve is represented by

A.  $\frac{dN}{dt} = rN$

B.  $\frac{dN}{dt} = rN(1 - N/k)$

C.  $N_t = N_0 + B + I - D - E$

D.  $\frac{dN}{dt} = 1 - \frac{N}{K}$

**Answer: B**



**Watch Video Solution**

71. Density of population D is

- A.  $S(\text{size})/W(\text{weight})$
- B.  $S(\text{space})/N(\text{number})$
- C.  $N(\text{number})/S(\text{space})$
- D.  $S(\text{space})/W(\text{weight})$

**Answer: C**



**Watch Video Solution**

72. Place occupied by an organism in relation to environment is

A. Habit

B. Habitat

C. Edaphic

D. Niche

**Answer: B**



**Watch Video Solution**

73. Amongst hydrophytes finely dissected leaves occur in

- A. Rooted floating leaved plants
- B. Submerged plants
- C. Emerged plants
- D. Free floating plants.

**Answer: B**



**Watch Video Solution**

74. 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  $N/K$  equals zero

B. When death rate is greater than birth rate

C. When  $N/K$  is exactly one

D. When  $N$  nears the carrying capacity of the habitat.

**Answer: C**



**Watch Video Solution**

**75.** Gause's principle of competitive exclusion states that:

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

B. Larger organisms exclude smaller ones through competition

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

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

**Answer: A**



**Watch Video Solution**



76. The primary producers of the deep-sea hydrothermal vent ecosystem are:

- A. Blue-green algae
- B. Coral reefs
- C. Green algae
- D. Chemosynthetic bacteria.

**Answer: D**



**Watch Video Solution**

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

A. Small numbers of progeny with small size

B. Small numbers of progeny with larger size.

C. Large numbers of progeny with small size.

D. Large numbers of progeny with small size.

**Answer: C**



**Watch Video Solution**

**78.** If '+' sign is assigned to benefited interaction '-' sign to detrimental and '0' sign to neutral interaction, then the population interaction represented by '+' '-' refers to:

A. Commensalism

B. Parasitism

C. Mutualism

D. Ammensalism

**Answer: B**



**Watch Video Solution**

**79.** The principle of competitive exclusion was stated by

A. MacArthur

B. Verhulst and Pearl

C. C.Darwin

D. G.F.Gause

**Answer: D**



**Watch Video Solution**

**80.** Asymptote in a logistic growth curve is obtained when

A.  $K = N$

B.  $K > N$

C.  $K < N$

D. The value of 'r' approaches zero

**Answer: A**



**Watch Video Solution**

**81.** Which ecosystem has the maximum biomass ?

A. Grassland ecosystem

B. Pond ecosystem

C. Lake ecosystem

D. Forest ecosystem

**Answer: D**



**Watch Video Solution**

**82. Mycorrhizae are the example of**

A. Amensalism

B. Antibiosis

C. Mutualism

D. Fungistasis

**Answer: C**



**Watch Video Solution**

**83.** Niche is

A. All the biological factors in the  
organism's environment



B. the physical space where an organism live

C. the range of temperature that the organism needs to live

D. the functional role played by the organism where it lives.

**Answer: D**



**Watch Video Solution**

**84.** Natality refers to

A. Death rate

B. Birth rate

C. Number of individuals the habitat

D. Number of individuals entering a  
habitat.

**Answer: B**



**Watch Video Solution**

**85.** Which one fo the following population interactions is widely used in medical science for the production of antibiotics?

A. Commensalism

B. Mutualism

C. Parasitism

D. Amensalism

**Answer: D**



**Watch Video Solution**

**86.** The abundance of a species population within its habitat is called :

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

**Answer: A**



**Watch Video Solution**

87. The maintenance of internal favourable conditions, by a self-regulated mechanisms in spite of the fact that there are changes in environment, is known as

A. entropy

B. enthalpy

C. homoeostasis

D. steady state

**Answer: C**



**Watch Video Solution**

**88.** July 11 is observed as

A. World Population Day

B. No Tobacco Day

C. World Environmental Day

D. World Health Day

**Answer: A**



**Watch Video Solution**

**89.** Which one of the following is a matching pair of certain organism(s) and the kind of association?

A. Shark and sucker fish - Commensalism

B. Algae and fungi in lichens- Mutualism

C. Orchids growing on trees-Parasitism

D. Cuscutta (dodder) growing on other  
flowering plants-Epiphytism

**Answer: B**





90. Which one of the following correctly represents an organism and its ecological niche?

A. Vallisneria and pond

B. Desert locust (*Schistocerca*) and the desert

C. Plant lice (aphids) and leaf

D. Vultures and dense forest



**Answer: C**



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**91.** Which one of the following is correct matching of a plant, its habit and forest type where it normally occurs?

A. *Prosopis*, tree, scrub

B. *Saccharum officinarum*, grass, forest

C. *Shorea robusta*, tree, tropical rain forest

D. *Acacia catechu*, tree, coniferous forest.

**Answer: A**



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**92.** Keystone species deserve protection because these

A. are capable of surviving in harsh environmental conditions.

B. indicate presence of certain minerals in the soil

C. have become rate due to

overexploitation

D. Play an important role in supporting other species.

**Answer: D**



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**93.** Which part of the world has a high density of organism?

A. Deciduous forests

B. Grasslands

C. Tropical rain forests

D. Savannahs

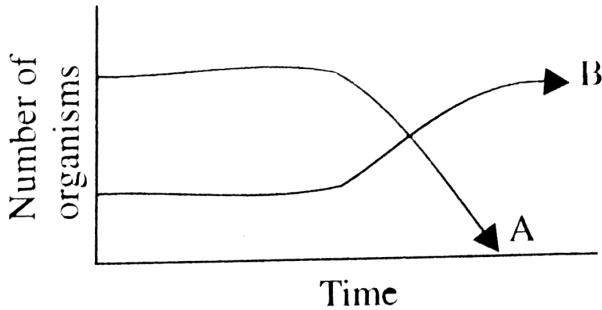
**Answer: C**



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**94.** The graph below shows the changes in two populations of herbivores in a grassy field. A

possible reason for these changes is that



A. all of the plant populations in this habitat decreased

B. populations B completed more successfully for food than population A did

C. population A produced more offspring than population B did

D. population A consumed the members of  
population B

**Answer: B**



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**95.** The xerophytic plants conserve water by  
storing it in

A. intercellular spaces

B. normal parenchymatous cells

C. intercellular spaces and parenchymatous cells

D. parenchymatous cells specialized for this purpose.

**Answer: D**



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**96.** Carrying capacity is

A. The capacity of an individual to produce young ones.

B. availability of resources in a given habitat to support a certain number of individuals of populations

C. gene frequency from one generation to next

D. gene frequency in same generation.

**Answer: B**



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**97.** The normal temperature of human body on the Kelvin scale is

A. 280

B. 290

C. 300

D. 310

**Answer: D**



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**98.** Most of the desert plants bloom during night times because

A. their blooming is controlled by low temperature

B. they are sensitive to the phases of moon

C. the desert insects eat away flowers during daytimes

D. the desert insects are active during night time.

**Answer: D**



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**99.** Within biological communities, some species are important in determining the ability of a large number of other species to persist in the community. Such species called

- A. keystone species
- B. allopatric species
- C. sympatric species

D. threatened species

**Answer: A**



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**100.** Which among the following is a rootless plant?

A. Nymphaea

B. Sagittaria

C. Ceratophyllum

D. Vallisneria

**Answer: C**



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**101.** Presence of flagellated protozoans in the gut of termites are the example of

A. Symbiosis

B. Parasitism

C. Antibiosis

## D. Commensalism

**Answer: A**



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**102.** The formula for exponential population growth is

A.  $\frac{dN}{r} N = dt$

B.  $r \frac{N}{d} N = dt$

C.  $d \frac{N}{dt} = rN$

$$D. \frac{dt}{d} N = rN$$

**Answer: C**



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**103.** If 4 individuals in a laboratory population of 40 fruitflies died during a specified time interval (i.e., a week), the death rate in the population during that period is

A. 1

B. 0.1

C. 0.01

D. 0.4

**Answer: B**



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**104.** A small rise in the body temperature of humans is corrected by

i) sweating

ii) dilating the skin arteries



iii) constructing the skin arteries

vi) Increased tension of muscles in the skin,

A. i) only

B. ii) only

C. i) and ii)

D. iii) and iv)

**Answer: C**



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**105.** Which of the following is a modified stem for the protection of plants from browsing animals?

A. Tendrils

B. Thorns

C. Rhizome

D. Tuber

**Answer: A**



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**106.** The free-living fungus *Tichoderma* can be used for

- A. killing insects
- B. biological control of plant diseases
- C. controlling butterfly caterpillars
- D. producing antibiotics

**Answer: A**



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**107.** Assertion: Leaf butterfly and sick insect show mimicry to dodge their enemies.

Reason: Mimicry is a method to acquire body colour blending with the surroundings.

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: A**



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**108.** Assertion: Animals adopt different strategies to survive in hostile environment.

Reasons: Praying mantis is green in colour which merges with plant foliage.

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: A**



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**109.** Assertion: The sex of kerala is highest in India.

Reason: In countries like India the population is increased at a rapid rate

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.



**Answer: B**



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**110.** Assertion: In tropical rain forests, O-horizon and A-Horizon of soil profile are shallow and nutrient-poor.

Reason: Excessive growth of micro-organisms in the soil depletes its organic content.

A. If both assertion and reason are true and the reason is a correct explanation

of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: C**



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**111.** Assertion: Smaller the organism higher is the rate of metabolism per gram weight.

Reason: The heart rate of a six-month-old baby is much lower than that of an old person.

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of

the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: B**



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**112.** Assertion: Thick cuticle is mostly present in disease resistant plants.

Reason: Disease causing agent

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: A**



**View Text Solution**

**113.** Assertion: Biotic community has higher position than population in ecological hierarchy.

Reason: Population of similar individuals remains isolated in the community.

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: C**



**View Text Solution**

**114.** Assertion: In sigmoid growth curve, population finally stabilize itself.

Reason: Finally, the death rate increases than the birth rate.



A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: C**



**Watch Video Solution**

**115.** Assertion: Presence of pneumatophores is a special adaptation of hydrophytes.

Reason: Pneumatophores are positively geotropic shoots that have lenticels and help in gaseous exchange.

A. If both assertion and reason are true and the reason is a correct explanation

of the assertion.

B. If both assertion and reason are true but reason is not a correct explanation of the assertion.

C. If the assertion is true but reason is false.

D. If both the assertion and reason are false.

**Answer: D**



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