



# **BIOLOGY**

# BOOKS - SURA BIOLOGY (TAMIL ENGLISH)

# PRINCIPLES OF ECOLOGY

**Evaluation** 

**1.** What is ecological hierarchy? Name the levels of ecological hierarchy.

A. Individual organism ightarrow Population

Landscape → Ecosystem

B. Landscape ightarrow Ecosystem ightarrow Biome

→ Biosphere

C. community ightarrow Ecosystem ightarrow

 ${\sf Landscape} \ \to \ {\sf Biome}$ 

D. Population ightarrow organism ightarrow Biome

→ Landscape

# **Answer: C**



2. Ecology is the study of an individual species

is called

Community ecology

Autecology

Species ecology

Synecology

A. i only

B. ii only

C. i and iv only

D. ii and iii only

#### **Answer: D**



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**3.** A specific place in an ecosystem, where an organism lives and performs its functions is

A. habitat

B. niche

C. landscape

D. biome

#### **Answer: B**



- **4.** Read the given statements and select the correct option.
- (i) Hydrophytes possess aerenchyma to support themselves in water.
- (ii) Seeds of Viscum are positively photoblastic as they germinate only in presence of light.

(iii) Hygroscopic water is the only soil water available to roots of plant growing in soil as it is present inside the micropores.

(iv) High temperature reduces use of water and solute absorption by roots.

A. i, ii, and iii only

B. ii, iii and iv

C. ii and iii only

D. i and ii only

## Answer: B

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**5.** Which of the given plant produces cardiac glycosides?

A. Calotropis

B. Acacia

C. Nepenthes

D. Utricularia

**Answer: A** 



- **6.** Read the given statements and select the correct option.
- (i) Loamy soil is best suited for plant growth as it contains a mixture of silt, sand and clay.
- (ii) The process ofhumification is slow in case of organic remains containing a large amount of lignin and cellulose.
- (iii) Capillary water is the only water available to plant roots as it is present inside the micropores.
- (iv) Leaves of shade plant have more total

chlorophyll per reaction centre, low ratio of chl a and chl b are usually thinner leaves.

- A. i, ii and iii only
- B. ii, iii and iv only
- C. i, ii and iv only
- D. ii and iii only

### **Answer: D**



**7.** Read the given statements and select the correct option.

Statement A: Cattle do not graze on weeds of Calotropis.

Statement B: Calotropis have thorns and spines, as defense against herbivores.

A. Both statements A and B are incorrect.

B. Statement A is correct but statement B

is incorrect.

C. Both statements A and B are correct but statement B is not the correct explanation of statement A.

D. Both statements A and B are correct and statement B is the correct explanation of statement A.

## Answer: B



8. In soil water available for plants is

A. gravitational water

B. chemically bound water

C. capillary water

D. hygroscopic water

## **Answer: C**



9. Read the following statements and fill up
the blanks with correct option.
(i) Total soil water content in soil is called
(ii) Soil water not available to plants is called.
(iii) Soil water available to plants is called
A. 🔀
B. 🔀
C. 🔀
D. 🗾

## **Answer: A**



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**10.** The plant of this group are adapted to live partly in water and partly above substratum and free from water

- A. Xerophytes
- B. Mesophytes
- C. Hydrophytes
- D. Halophytes

#### **Answer: D**



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11. Ophrys an orchid resembling the female of an insect so as to able to get pollinated is due to phenomenon of

- A. Myrmecophily
- B. Ecological equivalents
- C. Mimicry
- D. None of these

#### **Answer: C**



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- A. Nostoc
- B. Anabaena
- C. Chiarella
- D. Rhizobium

## **Answer: B**



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# 13. Pedogenesis refers to

A. Fossils

B. Water

C. Population

D. Soil

**Answer: D** 

14.	Mycorrhiza	promotes	plant	growth	by

- A. Serving as a plant growth regulators
- B. Absorbing inorganic ions from soil
- C. Helping the plant in utilizing atmospheric nitrogen
- D. Protecting the plant from infection

#### **Answer: B**



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**15.** Which of the following plant has a non-succulent xerophytic and thick leathery leaves with waxy coating?

- A. Bryophyllum
- B. Ruscus
- C. Nerium
- D. Calotropis

#### **Answer: C**



- **16.** In a fresh water environment like pond, rooted autotrophs are
  - A. Nymphaea and typha
  - B. Ceratophyllum and Utricularia
  - C. Wolffia and pistia
  - D. Azolla and lemna

## **Answer: A**



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**17.** Strong, sharp spines that get attached to animal's feet are found in the fruits of

- A. Argemone
- B. Ecballium
- C. Heritier
- D. Crossandra

## **Answer: A**



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**18.** Sticky glands of Boerhaavia and Cleome support

- A. Anemochory
- B. Zoochory
- C. Autochory
- D. Hydrochory

## **Answer: B**



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**19.** Define ecology.



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**20.** What is ecological hierarchy? Name the levels of ecological hierarchy.



**21.** What are ecological equivalents? Give one example.



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22. Distinguish habitat and niche.



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**23.** Why are some organisms called as eurythermals and some others as

stenothermals?

**24.** 'Green algae are not likely to be found in the deepest strata of the ocean'. Give at least one reason.



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**25.** What is Phytoremediation?



**26.** What is Albedo effect and write their effects?



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**27.** The organic horizon is generally absent from agricultural soils because tilling, e.g., plowing, buries organic matter. Why is an organic horizon generally absent in desert soils?



**28.** Soil formation can be initiated by biological organisms. Explain how?



**29.** Sandy soil is not suitable for cultivation Explain why?



**30.** Describe the mutual relationship between the fig and wasp and comment on the phenomenon that operates in this relationship.



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**31.** Lichen is considered as a good example of obligate mutualism. Explain.



**32.** What is mutualism? Mention any two examples where the organisms involved are commercially exploited in modern agriculture.



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**33.** List any two adaptive features evolved in parasites enabling them to live successfully on their host.



**34.** Mention any two significant roles of predation plays in nature.



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**35.** How does an orchid ophrys ensures its pollination by bees?



**36.** Water is very essential for life. Write any three features for plants which enable them to survive in water scarce environment.



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**37.** Why do submerged plants receive weak illumination than exposed floating plants in a lake?



**38.** What is vivipary? Name a plant group which exhibits vivipary.



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**39.** What is thermal stratification? Mention their types.



**40.** Rhytidome acts as a structural defence by plants against fire - Comment.



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**41.** What is myrmecophily?



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42. What is seed ball?



**43.** How is anemochory differ from zoochory?



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**44.** What is co-evolution?



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**45.** Explain Raunkiaer classification in the world's vegetation based on the temperature.



**46.** List out the effects of fire to plants.



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**47.** What is soil profile?



**48.** Give an account of various types of parasitism with examples.



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**49.** List the different types of hydrophytes with Examples.



**50.** Enumerate the anatomical adaptations of xerophytes.



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**51.** List the anatomical adaptations of Halophytes.



**52.** What are the advantages of seed dispersal?



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**53.** Describe dispersal of fruit and seeds by animals.



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Additional Questions And Answers Choose The Correct Answers

1. The term "Ec	ology" was firs	st proposed by
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- A. Ernest Haeckel
- B. Reiter
- C. R. Misra
- D. odum

**Answer: B** 



**2.** Living : biotic, non -living : \_\_\_\_\_

A. symbiotic

B. abiotic

C. biotope

D. ecotope

**Answer: B** 



**3.** \_\_\_\_ is the application of the science of Ecology.

A. Applied Ecology

B. Environmental technology

C. Both (a) and (b)

D. None of these

**Answer: C** 



A. Pistia
B. Lemna
C. Wolffia
D. Habenaria
Answer: C
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<b>5.</b> The common name of Bauhinia Vahli is

**4.** \_\_\_\_ is the smallest flowering plant.

- A. Horse's foot climber
- B. Dogs foot climber
- C. Camel's foot climber
- D. Foot climber

## **Answer: C**



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**6.** Which one of the following consumes the herbs and shrubs?

- A. Surface fire
- B. Ground fire
- C. Crown fire
- D. Canopy

## **Answer: A**



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**7.** Fungi which grow in soil of burnt areas is called

- A. parasitic
- B. pyrophilous
- C. pyrenoma
- D. coprophilous

## **Answer: B**



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**8.** The best pH range of the soil for cultivation of crop plants is

- A. 5.4 to 5.7
- B. 5.5 to 6.8
- C. 5.8 to 6.5
- D. 5.6 to 5.8

### **Answer: B**



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**9.** Which one of the following belongs to A-Horizon?

A. It consists of top soil with humus, living creatures and inorganic minerals.

B. It consists of fresh or partially decomposed organic matter.

C. It is a parent bed rock upon which underground water is found.

D. It consists of iron, aluminium and silica rich clay organic compounds.

## **Answer: A**



## 10. Drosera is commonly known as

- A. Sun dew plant
- B. Pitcher plant
- C. Venus fly trap
- D. Bladder wort

### **Answer: A**



<b>11.</b> Which	of	the	following	is	called	as	partial
stem para	site	es?					

- A. Opuntia
- B. Viscum
- C. Santalum
- D. Cuscuta

### **Answer: B**



## 12. Frugivores are otherwise known as

- A. Fruit eaters
- B. Vegetable eaters
- C. Frog eaters
- D. All the above

### **Answer: A**



**13.** Seeds germinating in the fruits of mother plant is known as

A. Hydrochory

B. aspospory

C. Vivipary

D. mimicry

**Answer: C** 



**14.** A plant which can tolerate cadmium poisoning \_\_\_\_

A. Maize

B. Soyabean

C. Pear

D. Mango

**Answer: B** 



**15.** The composition of Nitrogen in the atmosphere is \_\_\_\_

- A. 0.72
- B. 0.73
- C. 0.78
- D. 0.21

**Answer: C** 



<b>16.</b> The composition	of	carbon	di	oxide	in	air	is

A. 0.03

B. 0.0003

C. 0.3

D. 0.0302

## **Answer: B**



# **17.** The composition of oxygen in air is \_\_\_\_\_

- A. 0.24
- B. 0.35
- C. 0.78
- D. 0.21

#### **Answer: D**



18.	<b>Plants</b>	growing	in	acidic	soils	are	known	as
	1 Idiles	8, 6, 7, 11, 18		aciaic	50115	ai c	IXI I O VVI I	u J

- A. Cryophytes
- B. Calciphytes
- C. Oxylophytes
- D. Chasmophytes

### **Answer: C**



**19.** \_\_\_\_\_ is found in corolloid roots of Cycas.

A. Nostoc

B. Anabaena

C. Azolla

D. Tolypothrix

**Answer: B** 



# **20.** Nostoc is found in the thallus of

- A. Marchantia
- B. Riccia
- C. Anthoceros
- D. Azolla

**Answer: C** 



- **21.** \_\_\_\_ is not a cyanobacterium.
  - A. Rhizobium
  - **B.** Nostoc
  - C. Anabaena
  - D. None of these

**Answer: A** 



22. \_\_\_ is not a epiphyte.

A. Orchid

B. Usnea

C. Tillandsia

D. Azolla

**Answer: D** 



23.	Venus	fly	trap	refers	to	
		•				

- A. Drosera
- B. Diaonaea
- C. Utricularia
- D. Nepenthes

#### **Answer: B**



**24.** \_\_\_ is a total root parasite.

A. Orabanche

B. Cuscuta

C. Santalum

D. Viscum

**Answer: A** 



**25.** \_\_\_ is a partial root parasite.

A. Santalum

B. Orabanche

C. Rafflesia

D. Balanophora

**Answer: A** 



**26.** \_\_\_ is an example for Amensalism

A. Penicillium

**B.** Nostoc

C. Azolla

D. Mycorrhiza

**Answer: A** 



## 27. \_\_\_ inhibits growth of seedlings of Apple

- A. Quinine
- B. Nicotine
- C. Glycosides
- D. Junglone

#### **Answer: D**



28. \_\_\_ is a hygrophyte

A. Habenaria

B. Vallisneria

C. Typha

D. Nelumbo

**Answer: A** 



<b>29.</b> Roots	are	totally	absent	in	

- A. Hydrilla
- B. Salvinia
- C. Wolffia
- D. Ranunculus

**Answer: C** 



## **30.** Swollen petioles are seen in \_\_\_\_\_

- A. Vallisneria
- B. Pistia
- C. Eichhornia
- D. Ceratophyllum

### **Answer: C**



**31.** \_\_\_\_is not seen in hydrophytes.

A. Root pocket

B. offset

C. aerenchyma

D. velamen

**Answer: D** 



**32.** is not a True xerophyte

A. Argemone

B. Bryophyllum

C. Aloe

D. Nerium

**Answer: A** 



**33.** \_\_\_ is a True xerophyte

A. Casuarina

B. Zizyphus

C. Acacia

D. All of these

**Answer: D** 



**34.** Acacia is an example of \_\_\_\_\_

A. Phylloclade

B. Cladode

C. Phyllode

D. ephemeral

**Answer: C** 



**35.** \_\_\_ is a not seen in epiphytes

A. Velamen

B. Myrmecophilly

C. Clinging Roots

D. Respiratory roots

**Answer: D** 



**36.** \_\_\_\_ is a Succulent halophyte

A. Vanda

B. Habenaria

C. Orabanche

D. Salicornia

**Answer: D** 



<b>27</b> Leaves	are modified	inta	cninac	in
<b>57.</b> Leaves	are modified	IIILO	spines	111

- A. Opuntia
- B. Asparagus
- C. Argemone
- D. Tribulus

**Answer: A** 



38.	High	osmotic	pressure	is	characteristic	of
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\_\_\_\_

- A. Xerophytes
- B. Halophytes
- C. Trophophytes
- D. Epiphytes

## **Answer: B**



39.	Censor	mechanism	of	wind	dispersal	is
see	n in	-				

- A. Vernonia
- B. Maple
- C. Poppy
- D. Gyrocarpus

# **Answer: C**



40.	Feathery	appendages	for	wind	dispersal
occi	ur in				

- A. Vernonia
- B. Aristolochia
- C. Terminalia
- D. Mango

**Answer: A** 



<b>41.</b> Hydrochory is seen in
A. Mango
B. Ruellia
C. Bauhinia
D. Coconut
Angurar, D
Answer: D
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<b>42.</b> is an example for Autochory.

A. Crosssandra B. Xanthium C. Balsam D. a and c **Answer: D Watch Video Solution** 43. Seed dispersal caused by high turgor pressure is seen in \_\_\_\_

- A. Gyrocarpus
- B. Diplocyclos
- C. Boerhacvia
- D. Andropogon

**Answer: A** 



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Additional Questions And Answers Choose The Correct Statements

- **1.** (I) Ecology deals with the study of environment in relation to organisms.
- (II) Most widely accepted definition of Ecology was given by Ernest Haeckel.
- (III) Eugene P. Odum Father of Indian Ecology
- (IV) R. Misra Father of Ecology
  - A. I, III and IV only
  - B. I, II and IV only
  - C. I and II only
  - D. I, II and III only

#### **Answer: C**



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- 2. (I) Autecology is also called species Ecology.
- (II) Habitat is a specific physical place.
- (III) Synecology is also known as community

Ecology.

(IV) Science of Ecology is also known as Ecotopy.

A. I, III and IV only

- B. I, II and III only
- C. I and II only
- D. I and IV only

## **Answer: B**



- **3.** (I) Light is basic need of physiological processes of plants.
- (II) The visible part of light is made-up of wavelength from about 500 nm (violet) to 600

nm (red).

(III) The rate of photosynthesis is maximum at blue (400 - 500 nm) and green 600 nm.

(IV) The green (500 - 600 nm) wave length of spectrum is less strongly absorbed by plants.

A. II and IV only

B. I and IV only

C. I and II only

D. I, III and IV only

#### Answer: B



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- **4.** (I) Temperature affects almost all the metabolic activities of an organism.
- (II) At minimum temperature, physiological activities are lowest.
- (III) At optimum temperature, physiological activities will stop.
- (IV) Maximum temperature physiological activities are maximum

A. I and IV only

- B. II, IV only
- C. I and II only
- D. I and III only

#### **Answer: C**



- **5.** (I) Epilimnion is the upper layer of warmer water.
- (II) Metalimnion is the middle layer with a zone of gradual decrease in temperature.

(III) Hypolimnion is the bottom layer of colder water.

(IV) There are 5 kinds of thermal stratifications.

A. I and III only

B. II, IV only

C. I, II and III only

D. I, II and III only

## **Answer: D**



# Additional Questions And Answers Choose The Incorrect Statements

- **1.** (I) Calotropis produces highly poisonous cardiac glycosides.
  - (II) Tobacco produces nicotine.
- (III) Coffee plant produces caffine.
- (IV) Cinchona plant produces quinine.
  - A. I and II
  - B. II and III
  - C. All the above

D. None of the above

#### **Answer: D**



- **2.** (I) Calotropis produces highly poisonous cardiac glycosides.
- (II) Tobacco produces nicotine.
- (III) Coffee plant produces caffine.
- (IV) Cinchona plant produces quinine.

A. Water is one of the most important climatic factors.

B. Water covers more than 70% of the earth's surface.

C. Marine algae can live in water with wide range of salinity.

D. Marine angiosperms can withstand only small range of salinity.

# **Answer: D**



- **3.** (I) Calotropis produces highly poisonous cardiac glycosides.
- (II) Tobacco produces nicotine.
- (III) Coffee plant produces caffine.
- (IV) Cinchona plant produces quinine.
  - A. Fire is an exothermic factor.
  - B. It is caused due to the chemical process of combustion.

- C. Develops naturally due to the friction between the tree surfaces.
- D. Surface fire burns the forest canopy.

#### **Answer: D**



- **4.** (I) Calotropis produces highly poisonous cardiac glycosides.
- (II) Tobacco produces nicotine.

(III) Coffee plant produces caffine.

(IV) Cinchona plant produces quinine.

A. Air in motion is called wind

B. Wind is also a vital ecological factor.

C. 50% of nitrogen is present in the atmosphere.

D. Anemometer is the instrument used to measure the speed of wind.

# **Answer: C**



- **5.** (I) Calotropis produces highly poisonous cardiac glycosides.
- (II) Tobacco produces nicotine.
- (III) Coffee plant produces caffine.
- (IV) Cinchona plant produces quinine.
  - A. The surface of water is called topography.
  - B. Latitudes represent distance from the equator.

C. Height above the sea level forms the altitude.

D. Ecotone is a transition zone between two ecosystems.

**Answer: A** 



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Additional Questions And Answers Assertion And Reason

**1.** Assertion (A): Rhytidome is the structural defense by plants.

Reason (R): Rhytidome is composed of multiple layers of suberized periderm.

A. Both Assertion and Reason are true and

Reason is correct explanation of

Assertion.

B. Both Assertion and Reason are true and

Reason is not correct explanation of

Assertion.

C. Assertion is false and Reason is true.

D. Both Assertion and Reason are false.

## **Answer: A**



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**2.** Assertion (A): Climate is important natural factor controlling the plant life.

Reason (R): The climatic factors includes light, temperature, water, wind and fire.

A. Both Assertion and Reason are true and

Reason is correct explanation of

Assertion.

B. Both Assertion and Reason are true and

Reason is not correct explanation of

Assertion.

C. Assertion is false and Reason is true.

D. Both Assertion and Reason are false.

# **Answer: A**



**3.** Assertion (A): Soil is the weathered superficial layer of the Earth

Reason (R): Soil serves as the natural medium for the growth of plants.

A. Both Assertion and Reason are true and

Reason is correct explanation of

Assertion.

B. Both Assertion and Reason are true and

Reason is not correct explanation of

Assertion.

C. Assertion is false and Reason is true.

D. Both Assertion and Reason are false.

#### **Answer: A**



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**4.** Assertion (A) : Leaf shows maximum photosynthesis at green wavelength.

Reason (R): Leaf is green in colour and hence

photosynthesis is maximum at green wavelength.

A. Both Assertion and Reason are true and
Reason is correct explanation of
Assertion.

B. Both Assertion and Reason are true and
Reason is not correct explanation of
Assertion.

C. Assertion is false and Reason is true.

D. Both Assertion and Reason are false.

#### **Answer: D**



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**5.** Assertion (A): Strong winds are always harmful for plants.

Reason (R): Fruits have hooks to be carried by wind

A. Both Assertion and Reason are true and

Reason is correct explanation of

Assertion.

B. Both Assertion and Reason are true and

Reason is not correct explanation of

Assertion.

C. Assertion is false and Reason is true.

D. Both Assertion and Reason are false.

#### **Answer: C**



6. Assertion (A): Mimicry can help in defense.

Reason (R): Stick insect resembles a stick to escape from its predator.

A. Both Assertion and Reason are true and

Reason is correct explanation of

Assertion.

B. Both Assertion and Reason are true and

Reason is not correct explanation of

Assertion.

C. Assertion is false and Reason is true.

D. Both Assertion and Reason are false.

**Answer: A** 



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# Additional Questions And Answers Choose The Correct Pair

1. Undirectional - Formation of rain wind

Ground fire - Flag forms

Surface fire - Flameless

Crown fire - Forest canopy



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2. Rhytidome - Soil reactions

Indicator of fire - Pteris

Pedogenesis - Soil water

Pedology - Soil moisture



3. Cryophytes - Acidic soil

Chasmophytes - Rocky crevices

Oxylophytes - Alkaline soil

Halophytes - Calcium rich soil



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Additional Questions And Answers Choose The **Incorrect Pair** 

1. March 21 - World forest day

April 22 - Earth day

May 22 - International Ozone day

June 05 - World environment day



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2. Seed ball - Japanese

Mucilaginous - High turgor fluid pressure

Hooks - Xanthium

Barbs - Aristida



3. Bauhinia vahlii - Camel's foot climber

Light seeds - orchid

Obconical receptacle - Nelumbo

Aerial roots - Myrmecophily



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4. Heliophytes - Light loving

Eurythermal - Palm

Sciophytes - Shade loving

Stenothermal - Mango





## Additional Questions And Answers Choose The Odd Man Out Give Reason

1. Vallisneria

Orchid

Typha

Hydrilla



2. Root pocket

absence of roots

Succulent tissues

buoyancy



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3. Rhizobium

Lichen

Mycorrhiza

Penicillium





**4.** Salt glands

Velamen

**Aerial Roots** 

**Clinging Roots** 



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5. Multilayered epidermis

Scotoactive stomata

Pneumathodes

water storage tissue



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## Additional Questions And Answers Answer In **One Word**

1. Tissue present in epiphytic roots \_\_\_\_\_



<b>2.</b> Another name for respiratory roots
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<b>3.</b> Pores found in breathing roots
Watch Video Solution
<b>4.</b> Pollination by Ants
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**5.** Seeds germinating in the fruits of mother plant is known as



**6.** Dispersal by water \_\_\_\_



**7.** Dispersal by wind \_\_\_\_



8. Dispersal by explosive mechanism				
Watch Vide	o Solution			
<b>9.</b> Describe disperant	ersal of fr	uit and seeds	by	

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**10.** Plants found in saline water \_\_\_\_



**11.** Production of two kinds of leaves in the same plant



**12.** Petiole modified into leaflike structure \_\_\_\_



**13.** Stem modified into leaf like structure \_\_\_\_\_



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**14.** Living organism modifies its structure/behaviour and looks like another living organism



15 Mutual association of a place and from and				
<b>15.</b> Mutual association of a alga and fungus				
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<b>16.</b> Plants living in sandy soil				
Watch Video Solution				
<b>17.</b> Plants living in ice surface				
Watch Video Solution				

18. Cryophytes - Acidic soil

Chasmophytes - Rocky crevices

Oxylophytes - Alkaline soil

Halophytes - Calcium rich soil



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19. Plants living in calcium rich alkaline soil

\_\_\_\_



**20.** Process of soil formation .....



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**21.** Study of soil \_\_\_\_\_



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22. Heliophytes - Light loving

Eurythermal - Palm

Sciophytes - Shade loving Stenothermal - Mango **Watch Video Solution** 23. Light loving plants \_\_\_\_ **Watch Video Solution 24.** Father of modern Ecology **Watch Video Solution** 

**25.** Father of Ecology \_\_\_\_



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**26.** Father of Indian Ecology \_\_\_\_\_



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Additional Questions And Answers Very Short Answers 1. Name the types of ecological factors.



**2.** What is topography? Write the chief topographic factors.



**3.** Draw a free floating hydrophyte and label any 2 parts.



**4.** Name some succulent xerophytes.



**5.** Name two rooted submerged hydrophytes.



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**6.** Differentiate heliophytes and sciophytes.



7. What is meant by latitude?



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8. What is meant by phytophagous?



**Watch Video Solution** 

**9.** What is competition?



10. Comment on Amensalism.



**11.** What is biotope?



12. Name and explain the branches of ecology.



13. Name the organisms which are classified based on the range of tolerance of salinity.



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14. What is dadode?



**15.** What are phyllochides?



**Watch Video Solution** 

**16.** What are trichophyllous plants?



**Watch Video Solution** 

17. Mention two morphological adaptations of hydrophytes.



**18.** What is Timberline/ Tree line?



**Watch Video Solution** 

**19.** What are Sclerophyllous forests?



**Watch Video Solution** 

**20.** How is the speed of wind measured?



21. Mention two effects of strong winds.



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22. What are "indicators of fire"?



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23. What is a fire break?



**24.** Why is loamy soil ideal for cultivation?



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**25.** Explain the terms Hollard, Chresard, Echard.



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26. What is a ecotone?



27. What are Holoparasites?



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28. What are Hemiparasites?



**Watch Video Solution** 

29. What is antibiosis?



**30.** Mention two morphological adaptations of hydrophytes.



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**31.** What is Heterophylly?



**32.** What are Tropophytes?



**Watch Video Solution** 

**33.** What are halo Halophiles/ Halophytes?



**Watch Video Solution** 

**34.** What is Scotoactive stomata?



35. List the anatomical adaptations of Halophytes.



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**36.** What are Psammophytes?



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**37.** Define :

Lithonhytes



**38.** Define :

Chasmophytes



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**39.** Define :

Cryophytes



**40.** Define :

Cryophytes



**Watch Video Solution** 

**41.** Define :

Oxylophytes



**42.** Define :

Calciphytes



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Additional Questions And Answers Short
Answers

**1.** How is organism affected by temperature?



**2.** What are epiphytes? List the morphological adaptations seen in epiphytes.



**Watch Video Solution** 

**3.** Draw a epiphyte and label the parts.



**Watch Video Solution** 

**4.** Name the plant which consume insects as a source of nitrogen. Draw the structure of the plant.



**5.** What is edge effect?



**Watch Video Solution** 

**6.** What is proto cooperation?



**Watch Video Solution** 

7. What are insectivorous plants?



8. What is Junglone?



**Watch Video Solution** 

9. Draw a free floating hydrophyte and label any 2 parts.



**10.** What are hygrophytes?



**Watch Video Solution** 

11. Name some succulent xerophytes.



**Watch Video Solution** 

**12.** What are true xerophytes/ Non succulents?



13. Differentiate Phylloclade and Phyllode.



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**14.** Draw a succulent xerophyte and label the parts.



**Watch Video Solution** 

**15.** What is unique about the stomata seen in xerophytes?



**16.** What are the types of roots seen in epiphytes?



17. What is velamen?



**18.** What are Pneumatophores?



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List the anatomical adaptations of 19. Halophytes.



**Watch Video Solution** 

20. Mention two adaptations seen Anemochory.



**21.** Give two examples of adaptations seen in Zoochory?



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**22.** What is Autochory?



**23.** What is paleo climatology?



**Watch Video Solution** 

**24.** Write the effects of temperature on plant.



**Watch Video Solution** 

Additional Questions And Answers Long Answers

**1.** How do seeds disperse by water?



**2.** Dispersal by wind \_\_\_\_



**3.** List the edaphic factors which vegetation affect.



**4.** Tabulate the different interactions seen in plant.



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**5.** What are epiphytes? List the morphological adaptations seen in epiphytes.



**Watch Video Solution** 

**Unit Test Choose The Correct Answer** 

**1.** Arrange the correct sequence of ecological hierarchy starting from lower to higher level.

A. Individual organism ightarrow Population Landscape ightarrow Ecosystem

B. Landscape  $\; 
ightarrow \;$  Ecosystem  $\; 
ightarrow \;$  Biome

ightarrow Biosphere

C. community ightarrow Ecosystem ightarrow

 ${\sf Landscape} \ \to \ {\sf Biome}$ 

D. Population  $\;
ightarrow\;$  organism  $\;
ightarrow\;$  Biome

ightarrow Landscape



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- 2. \_\_\_\_is found in corolloid roots of Cycas.
  - A. Nostoc
  - B. Anabaena
  - C. Azolla
  - D. Tolypothrix

#### **Answer:**

**3.** \_\_\_ is an example for Amensalism

A. Penicillium

B. Nostoc

C. Azolla

D. Mycorrhiza

**Answer:** 



- 4. \_\_\_ is not a True xerophyte
  - A. Argemone
  - B. Bryophyllum
  - C. Aloe
  - D. Nerium



5.	Hydroc	hory is	seen	in	
	,	,			

- A. Mango
- B. Ruellia
- C. Bauhinia
- D. Coconut



- **6.** Choose the incorrect statement(s).
  - A. Water is one of the most important climatic factors.
  - B. Water covers more than 70% of the earth's surface.
  - C. Marine algae can live in water with wide range of salinity.
  - D. Marine angiosperms can withstand only small range of salinity.



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**7.** Fungi which grow in soil of burnt areas is called

- A. parasitic
- B. pyrophilous
- C. pyrenoma
- D. Coprophilous



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- 8. Choose the incorrect pair.
  - A. March 21 World forest day
  - B. April 22 Earth day
  - C. May 22 International Ozone day
  - D. June 05 World environment day

#### **Answer:**

- 9. Choose the odd one out and give reason.
  - A. Salt glands
  - B. Velamen
  - C. Aerial Roots
  - D. Clinging Roots



### **Unit Test Very Short Answers**

1. 'Green algae are not likely to be found in the deepest strata of the ocean'. Give at least one reason.



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**2.** Sandy soil is not suitable for cultivation Explain why?



### **Unit Test Short Answer**

**1.** What is mutualism? Mention any two examples where the organisms involved are commercially exploited in modern agriculture.



2. Draw a epiphyte and label the parts.



## **Unit Test Long Answer**

**1.** Enumerate the anatomical adaptations of xerophytes.

