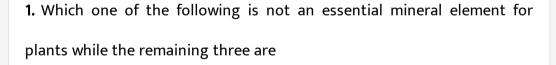


### **BIOLOGY**

### BOOKS - UNIVERSAL BOOK DEPOT 1960 BIOLOGY (HINGLISH)

### MINERAL NUTRITION

### **Mineral Nutrition**



- A. Cadmium
- B. Phosphorus
- C. Iron
- D. Manganese



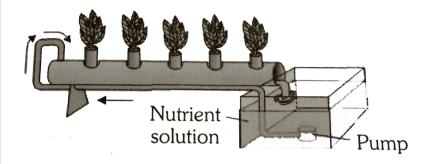
- 2. In plant nutrition elements are classified as major or minor depending on
  - A. Their availability in the soil
  - B. Their relative production in the ash obtained after burning the plants
  - C. The relative amounts required by the plants
  - D. Their relative importance in plant growth

#### **Answer: C**



**3.** The given figure shows hydrophonic/soil less plant production. Plants are grown in a tube or through placed on a slight incline. The arrows indicate the direction of flow of nutrient solution.

Nutrient solution is sent to the elevated end of the tube from the reservoir by \_\_\_\_\_ and it flows back into reservoir due to \_\_\_\_\_



- A. Pump, Gravity
- B. Gravity, Pump
- C. Gravity, Gravity
- D. Pump, Pump

#### Answer:



4. Inorganic nutrients are presents in the soil in the form of A. Molecules B. Atoms C. Electrically charged ions D. Parasite **Answer: C Watch Video Solution** 5. Sulphur is an important nutrient for optimum growth and productivity in A. Fibre crops B. Oilseed crops C. Pulse crops D. Cereals

# **Watch Video Solution** 6. An essential element is one A. Improve plant growth B. Present in plant ash C. Is indispensable for growth and is irreplaceable D. Available in soil **Answer: C Watch Video Solution** 7. Hydroponics are A. Growing of aquatic plants

Answer:

- B. Growing of floating aquatic plants C. Growing of plants is sand
- D. Growing of plants aqueous balanced nutrient



- 8. Which of the following ions of heavy metals participate in process of photosynthesis in higher plants
  - A. Pb, Fe, Ni, Co
  - B. Mg, Zn, Cu, Hg
  - C. Mg, Mn, Co, Fe
  - D. Mg, Cu, Mn, Fe

#### Answer:



### **9.** Necrosis means

- A. Yellow spots on the leaves
- B. Death of tissue and decomposition
- C. Darkening of green colour in leaves
- D. None of the above

#### **Answer: B**



- 10. Tracer elements are
  - A. Micro elements
  - B. Macro-elements
  - C. Radio isotops
  - D. Vitamins

# **Watch Video Solution** 11. Essential elements for plants are A. Life cycle incomplete without it B. Non replaceable C. Metabolism (necessary for it) D. All above Answer: **Watch Video Solution** 12. In hydrophytic plants, water and salts are absorbed by A. Roots

Answer:

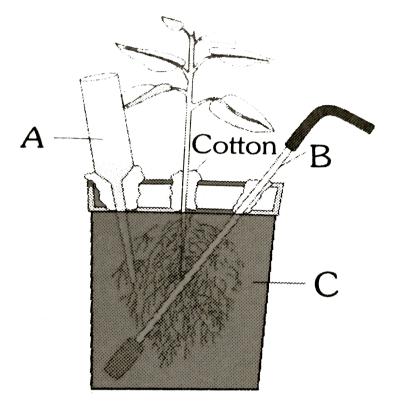
- B. Leaves
- C. Stem
- D. Outer layer of plants



**Watch Video Solution** 

13. The given figure shows a typical setup for hydrophonic technique.

Choose the option which gives correct set words for all the three blanks



A. A-funnel for adding water and nutrients, B - Aerating tube, C - Water

- B. A -Funnel for adding nutrients only B, Aerating tube, C Nutrient solution
- C. A-Funnel for adding water only, B Aerating tube, C-Nutrient solution

D. A - Funnel for adding water and nutrients, B - Aerating tube, C -**Nutrient solution Answer:** Watch Video Solution 14. The number of essential elements required for normal growth of plant is A. 10 B. 16

C. 20

D. 25

**Answer: B** 

<b>15.</b> Aeroponic is also called as
A. Soilless cultivation of plants
B. Parthenocaropy
C. Vivipary
D. Phytotron
Answer: A
Watch Video Solution
16. Who gave the criteria of essentiality
16. Who gave the criteria of essentiality  A. R. Hill
A. R. Hill
A. R. Hill B. F.F. Blackman

## Answer: Watch Video Solution 17. Which one of the following scientists used the nutrient culture solution in hydroponic cultures A. Sachs B. Webster C. Wallace D. Knop **Answer:** Watch Video Solution 18. Which group of element is not essential for a normal plant

A. Potassium, calcium, magnesium B. Iron, zinc, magnaese, boron C. Lead, nickel, iodine, sodium, barium D. Magnesium, iron, molybdenum **Answer: Watch Video Solution** 19. The charcoal culture experiment is better than water culture experiment because A. Plants get support B. Problem of aeration is removed C. Charcoal is an inert substance D. All the above Answer:





- A. Necrosis
- B. Chlorosis
- C. Etiolation
- D. Shorterning internode



### 21. Cultivation by sand culture is also called

- A. Soilles cultivation
- B. Green house effect
- C. Photorespiration

Answer: A
Watch Video Solution
2. In which of the following forms is iron absorbed by plants
A. Ferric
B. Ferrous
C. Free element
D. Both ferric and ferrous
Answer: A
<b>◯</b> Watch Video Solution

D. None of these

23. Which of the following is associated with electron transport in
photosynthesis
A. Sodium
B. Potassium
C. Iron
D. Cobalt
Avenues C
Answer: C
Watch Video Solution
Watch Video Solution
Watch Video Solution  24. Which element forms part of structure of chlorophyll molecule
Watch Video Solution  24. Which element forms part of structure of chlorophyll molecule  A. Fe

# Answer: B **Watch Video Solution** 25. Deficiency symptoms of nitrogen and potassium are visible first in A. Roots B. Buds C. Senescent leaves D. Young leaves





26. In which of the following, all the three are macronutrients

A. Boron, zinc, maganese

- B. Iron, copper, molybdenum
- C. Molybdenum, magnesium, maganese
- D. Nitrogen, carbon, phosphorus



**Watch Video Solution** 

**27.** Plants requiring two metallic compounds (minerals) for chlorophyll synthesis, are

Or

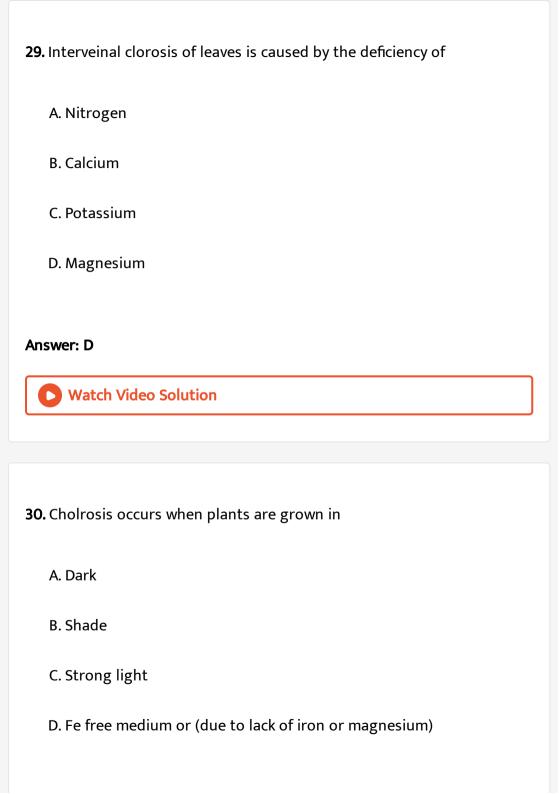
One mineral activates the enzyme catalase and the other is a constituents of the ring structure of chloropyll. These minerals are respectively

- A. Fe and Ca
- B. Fe and Mg
- C. Cu and Ca

Answer:
Watch Video Solution
<b>28.</b> Which of the following is essential mineral element and is not a constituent of any enzyme but stimulate the activity of many enzymes
A. Zn
B. Mg
C. Mn
D. K

D. Ca and K

**Answer:** 



### Answer: D



**Watch Video Solution** 

31. K, N, Ca, Mg deficiency causes

- A. Chlorosis
- B. Leaf curl
- C. Exanthema
- D. Little leaf

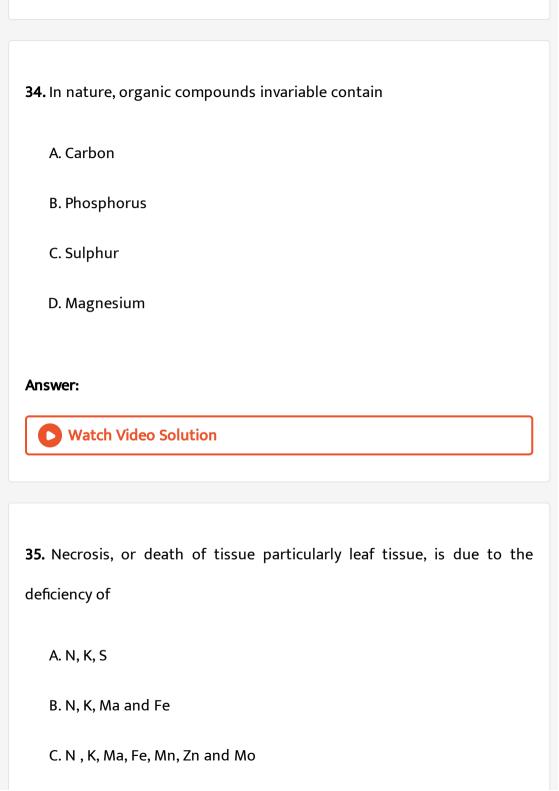
#### **Answer:**



**Watch Video Solution** 

**32.** The possible resource of phosphorus ions and nitrogen ions in soil generally get depleted because they are usually found as

- A. Positively charged ions B. Negatively charged ions C. A disproportionate mixture of negatively charged ions D. Particles carrying no charge **Answer: Watch Video Solution**
- 33. Which of the following does NPK (Critical element) denote
  - A. Nitrogen, postassium, kinetin
  - B. Nitrogen, protein, kinetin
  - C. Nitrogen, protein, potassium
  - D. Nitrogen, phosphorus, potassium



D. Mn, Zn and Mo

Answer: A::C::D



**Watch Video Solution** 

**36.** Which element is require for the gemination of pollen grain

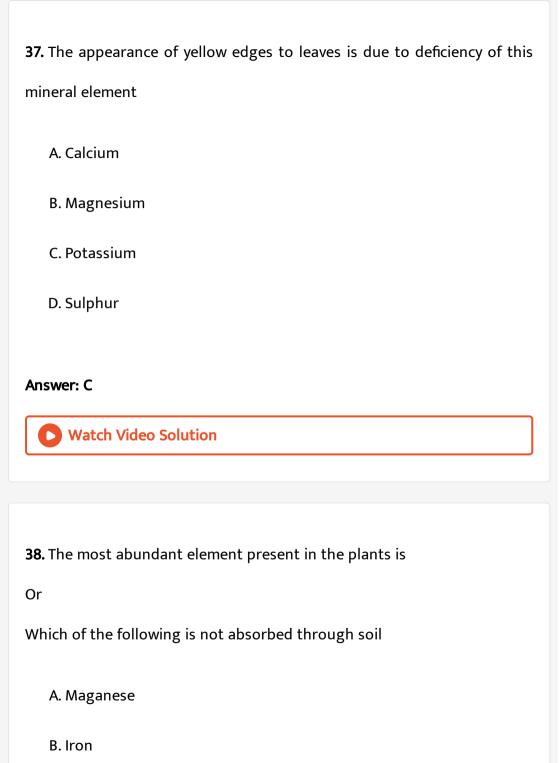
Or

Which of the following element is very essential for uptake and utilization of  $Ca^{2\,+}$  and membrane function

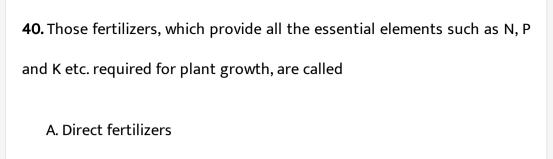
- A. Boron, zinc, maganese
- B. Calcium
- C. Chlorine
- D. Potassium

**Answer:** 





C. Carbon
D. Nitrogen
Answer:
Watch Video Solution
<b>39.</b> The major portion of the dry weight of plants comrises of
Or
Frame work elements in plants are
A. Carbon, hydrogen, and oxygen
B. Nitrogen, Phosphorus and potassium
C. Calcium, maganesium and sulphur
D. Carbon, nitrogen and hydrogen
Answer:



- B. Indirect fertilizers
- C. Complete fertilizers
- D. Incomplete fertilizers



- **41.** Which of the following element is used up in phosphorylation
  - A. Calcium and sulphur
  - B. Chlorine and maganese
  - C. Iron and phosphorous

Answer:
Watch Video Solution
<b>42.</b> Which of the following is not an essential macro-element for the
growth of plants
A. N
B. Zn
C. Ca
D. K
Answer:
Watch Video Solution

D. Magnesium and phosphate

<b>43.</b> Most common free ion in a cell is
A. P
B. K
C. Fe
D. B
Answer: B
Watch Video Solution
<b>44.</b> The major role of phosphorus in plant metabolism is
A. To generate metabolic energy
B. To evolve oxygen during photosynthesis
C. To evolve carbon dioxide during respiration
D. To create anaerobic conditions

# Answer: **Watch Video Solution** 45. In plants sulphur is found as A. Fast moving B. Moving C. About non-moving D. None of the above **Answer: Watch Video Solution** 46. Which one is not related with plant ash A. Trace elements

A. Soluble phosphate  B. All phosphates  C. Phosphoric acid  D. As element	C. Nitrogen
47. Plants absorb phosphates as  A. Soluble phosphate  B. All phosphates  C. Phosphoric acid  D. As element	D. Mineral elements
47. Plants absorb phosphates as  A. Soluble phosphate  B. All phosphates  C. Phosphoric acid  D. As element	Answer:
A. Soluble phosphate  B. All phosphates  C. Phosphoric acid  D. As element	Watch Video Solution
B. All phosphates  C. Phosphoric acid	
B. All phosphates  C. Phosphoric acid  D. As element	<b>47.</b> Plants absorb phosphates as
C. Phosphoric acid  D. As element	A. Soluble phosphate
D. As element	B. All phosphates
	C. Phosphoric acid
Answer:	D. As element
	Answer:
Watch Video Solution	Watch Video Solution

B. Essential elements

<b>48.</b> Which of the following is a macro nutrient
A. Ca and Mg
B. Mo
C. Mn
D. Zn
Answer:
Watch Video Solution
<b>49.</b> Deficiency of which of the following element casue weaking of pedicel
and petiole
Or
Which of the following is required for binding protein wit nucleic acid
A. Magnesium
B. Zinc

D. Calcium
Answer:
Watch Video Solution
50. Magnesium is mainly present in the form of
A. Citrate
B. Bicarbonate
C. Carbonate
D. Phosphate
Answer:
Watch Video Solution

C. Nitrogen

<b>51.</b> The constant pH of body fluid is maintained by buffer salts like
A. Potassium phosphates
B. Sodium phosphates
C. Adenosine monophosphate
D. Sodium and potassium phosphates
Answer:
Watch Video Solution
<b>52.</b> Permature leaf fall is caused due to the deficiency of
<b>52.</b> Permature leaf fall is caused due to the deficiency of  A. Molybdenum
A. Molybdenum
A. Molybdenum  B. Sulphur

### Watch Video Solution 53. Which of the following is considered to be the elements between macro-nutrients and micro-nutrients A. Iron B. Nitrogen C. Phosporus D. Manganese **Answer:** Watch Video Solution 54. The cause of special flavour in onion and garlic is due to the presence of

Answer:

Or
Yellowing of tea leaf takes place by the deficiency of
A. Sulphur
B. Phosphorus
C. Potassium
D. Nitrogen
Answer:
Watch Video Solution
55. Which is essential for root hair growth
Or
The mineral present in cell wall is
A. Zn
B. Ca

<b>レ</b> . ン

#### Answer:



**Watch Video Solution** 

**56.** Rapid deterioration of root and shoot tip occurs due to the deficiency of

- A. Calcium
- B. Phosphorus
- C. Nitrogen
- D. Carbon

#### Answer:



Watch Video Solution

57. About 98 percent of the mass of every living organism is composed of just six elements including carbon, hydrogen, nitrogen, oxygen and

- A. Phosphorus and sulphur
- B. Sulphur and magnesium
- C. Magnesium and sodium
- D. Calcium and phosphorus

#### **Answer:**



**Watch Video Solution** 

- 58. Phosphorus is a structural element in
  - A. Fat
  - B. Starch
  - C. Nucleotide
  - D. Carbohydrate

### **Answer: C** Watch Video Solution 59. Which of the following is not a macro-nutrient Or Which is essential for the growth of root tip A. MN B. Ca C. Mg D. Phosphorus **Answer: Watch Video Solution** 60. Presence of phosphorus in a plant

A. Brings about healthy root growth B. Retards fruit ripening C. Retards protein formation D. None of the above **Answer: Watch Video Solution** 61. Essential macroelements are A. Absorbed from soil B. Manufactured during photosynthesis C. Produce by enzymes D. Produced by growth hormones **Answer: Watch Video Solution** 

- **62**. A trace element is an element which
  - A. Is radioactive and can be traced by Geiger counter
  - B. Is required in very minute amounts
  - C. Draws other element out of protoplasm
  - D. Was one og the first to be discovered in photoplasm

#### **Answer:**



**Watch Video Solution** 

- 63. Micro-untrients are
  - A. Less important in nutrition than macro-nutrients
  - B. As important in nutrition as macro-nutrients

C. May be omitted from culture media without any detrimental effect on the plant

D. Called micro because they play only minor role in nutrition

#### **Answer:**



**Watch Video Solution** 

#### 64. Deficiency of molybdenum cause

- A. Poor development of vasculature
- B. Bending of leaf tip
- C. Yellowing of leaves
- D. Mottling and necrosis of leaves

#### Answer: C



**Watch Video Solution** 

#### 65. Find the correctly matched pair

Nutrients Functions

- $(a) \quad Zince \quad \quad \quad Helpes \ to \ maintain \ the \ ribosome \ struture$
- (b) Magnesium Needed during the formation of mitotic spindle
- (c) Calcium Plays a role in the opening and closing of stomata
- (d) Manganese Needed in the splitting of water to liberate oxygen d
   (e) Potassium Needed in the synthesis of auxin
  - Watch Video Solution

# **66.** In a Citrus plantation, all the plants were found to be suffering from the die-back, spraying of fungicides was of no help. This problem was due to the deficiency of

- A. Copper
- B. Gibberellic acid
- C. Zinc
- D. Auxins

#### Answer:

**...** 

**67.** The appearance of brown spots surrounded by chlorotic veins is the prominent symptom of:-

A. Mn

B. Mo

C. Mg

D. Zn

#### **Answer:**



#### **Watch Video Solution**

**68.** Which of the following is widely used metal cofactor

A.  $Ca^{2+}$ 

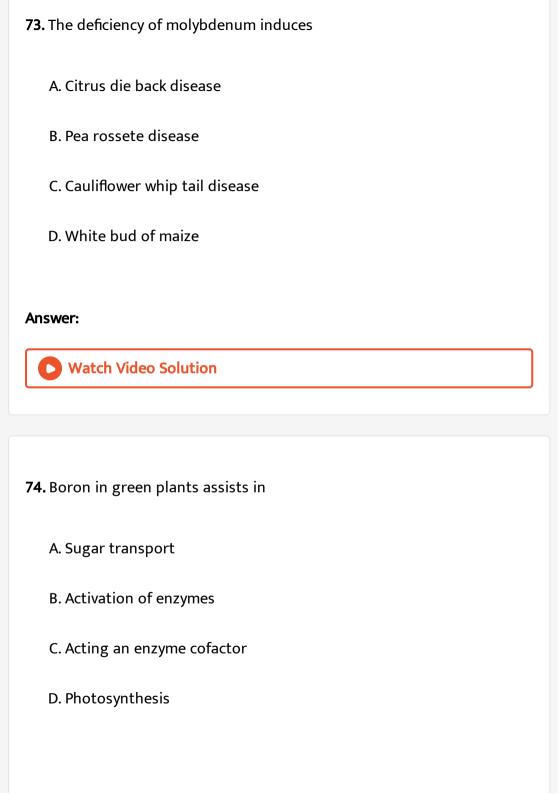
B.  $Al^{3+}$ 

C. $Ni^{2+}$
D. $Mg^{3+}$
Answer:  Watch Video Solution
watch video Solution
<b>69.</b> For its activity, carboxypeptidase requires
Which one is the co-factor of carbonic anhydrase
A. Zinc
B. Tron
C. Niacin
D. Copper
Answer:
Watch Video Solution

Or
'Petiole crack' is caused by the deficiency of
A. Magnesium
B. Iron
C. Manganese
D. Boron
Answer:
Watch Video Solution
Watch Video Solution
71. Micronutrients are needed in amounts equivalent to
71. Micronutrients are needed in amounts equivalent to

**70.** Apple fruit develop internal cork due to deficiency of

D. 30 m mol/ kg of dry matter
Answer:
Watch Video Solution
<b>72.</b> Mottle leaf in citrus plants is due to deficiency of
Or
One of the causes of littles leaf is due to deficiency of
A. Boron
B. Magnesium
C. Zinc
D. None of these
Answer:
Watch Video Solution



#### **Answer:**



**Watch Video Solution** 

**75.** The deficiencies of micronutrients, not only affects growth of plants but also vital functions such s photosynthetic and mitochondrial electron flow. Among the list given below, which group of these elements shall affect most, both photosynthetic and mitochondrial electron transport

- A. Cu, Mn, Fe
- B. Co, Ni, Mo
- C. Mn, Co, Ca
- D. Ca, K, Na

#### Answer:



**View Text Solution** 

76. The element arsenic, copper and murcury have which of the following effect

A. Catalytic effect

B. pH effect

C. Toxic effect

D. Antagonastic action

#### **Answer:**



**Watch Video Solution** 

77. Deficiency of iorn causes

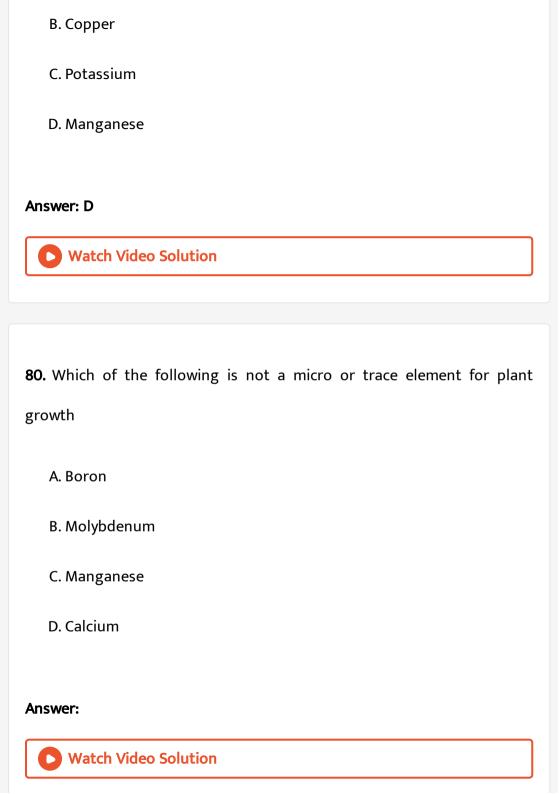
A. Bending of leaf tip

B. Interveinal chlorosis first on young leaves

C. Decreases of protein synthesis

D. Reduced leaves and stunted growth

## Answer: **Watch Video Solution 78.** Zn, Mo, Fe, Cu are A. Trace elements B. Non-essential elements C. Macro nutrients D. None of these **Answer: Watch Video Solution** 79. Gray speck disease in oats takes place by the distance deficiency of A. Zinc



81. Which one of the following is not a micronutrient
A. Boron
B. Molybdenum
C. Magnesium
D. Zinc
Answer:
Watch Video Solution
Watch Video Solution
Watch Video Solution  82. The micronutrient least required by planys is
82. The micronutrient least required by planys is
82. The micronutrient least required by planys is  A. Calcium

## Answer: Watch Video Solution

83. The plants accept Zn as

- A. Zn
- B.  $Zn^{2+}$
- C. ZnO
- D.  $ZnSO_4$

#### **Answer:**



Watch Video Solution

**84.** Major role of mirror essential elements is to act as

A. Co-factors of enzymes

B. Building blocks of important amino acids C. Constituents of hormones D. Binders of cell structure **Answer: Watch Video Solution** 

85. Which one of the following elements plays an important role in biological nitrogen fixation

or

Browning of cauliflower takes due to deficiency of which one of the following elements

- A. Molybdenum
- B. Manganese
- C. Copper
- D. Zinc

#### **Answer:**



**86.** Which one of the following nutrient serves as micro elements for plant growth

- A. Manganese, copper, calcium, zinc
- B. Sodium, potassium, boron, chlorine
- C. Sodium, nickel, chlorine, copper
- D. Copper, molybdenum, zinc, nickel

#### Answer:



**Watch Video Solution** 

87. Which of the following is micro-element in plant

A. Manganese B. Nitrogen C. Magnesium D. Calcium **Answer: Watch Video Solution** 88. Which of the following is the importance of molybdenum in plants metabolism A. Carbon assimulation B. Nitrate reduction C. Plant breeding D. Chromosome contraction **Answer:** 



A. Cu

B. Mn

C. Zn

D. Fe

#### **Answer:**



90. Conduction of inorganic materials in plants occur mainly through or

Minerals absorbed by roots move to the leaf through

A. Xylem

B. Phloem

C. Sieve tube
D. None
Answer:
Watch Video Solution
<b>91.</b> Active transport from outside to inside of molecules across a
membrane requires
A. Cyclic AMP
B. Acetyl chlorine
C. ATP
D. Phloroglucinol
Answer: C
Watch Video Solution

## A. lons are active B. Energy is expended C. Ions move freely D. Ions move passively Answer: **Watch Video Solution** 93. Plants absorb mineral salts from the soil solution through A. A semipermeable membrane into the cytoplasm B. Perforation at the apex of root hair cells C. The cell wall which is semipermeable D. None of these

92. Ion uptake is called active because

#### **Answer: A**



**94.** The theory which suggest that the  $CO_2$  produced in respiration plays an important role in mineral absorption

- A. Contact exchange theory
- B. Carbonic acid exchange theory
- C. Active absorption theory
- D. None of these

#### Answer:



**Watch Video Solution** 

95. All mineral slats are absorbed in cells as

A. lons
B. Atoms
C. Molecules
D. All the above
Answer:
Watch Video Solution
<b>96.</b> Carrier proteins are involved in
A. Active transport of ions
B. Passive transport of ions
C. Water transport
D. Water evaporation
Answer: A
Watch Video Solution

<b>97.</b> which statement is incorrect for ion-channels
A. They are proteins
B. Movement through them is simple diffusion
C. Movement through them is from high to low concentration
D. All ions pass through the same type of channel
Answer:
Watch Video Solution
<b>98.</b> Entry of mineral ions in plant root cells by diffusion is

A. Passive absorption

B. Active absorption

C. Osmosis

D. Endocytosis
Answer: A
Watch Video Solution
9. Active uptake of minerals by roots mainly depends on the
A. Availability of oxygen
B. Light
C. Temperature
D. Availability of carbon dioxide
nswer:
Watch Video Solution

100. The plany ash is an indication of

A. Organic matter of plant B. Waste product C. Mineral salt absorbed by plants D. None of these Answer: c **Watch Video Solution** 101. Minerals are absorbed by a plant from the soil by a process A. Independent of water absorption B. Dependent on water absorption C. Dependent on strength of solution D. Dependent on osmosis **Answer: Watch Video Solution** 

**102.** By which method ions absorbed by plants

- A. By difference in DPD
- B. By difference in water potential
- C. By carriers and pumps
- D. By molecular diffusion

#### **Answer:**



**103.** Nobel prize of 1991 for discovring the single ion channels in cell was awarded to

- A. Waston and Hargobind Khorana
- B. Erwin Neher and Bert Stakmann
- C. Nirenberg and Kornberg

D. Holley and Matthaei
Answer:
Watch Video Solution
<b>104.</b> In the light of carrier concept, the transport of ion across the membrane is
A. Passive process

B. Non-osmotic process

Watch Video Solution

C. Osmotic process

D. Active process

**Answer:** 

**105.** If the amount of an ion absorbed by a root hair cell at  $0^\circ C$  is 5 gm and at  $20^\circ C$  is 20 gm. The amount of this ion absorbed actively should be

- A. 25 gm
- B. 20 gm
- C. 15 gm
- D. 5 gm

#### Answer:



Watch Video Solution

- **106.** Solutes are absorbed by a plant cell through
  - A. Osmosis
  - B. Diffusion
  - C. Active absorption

D. Passive absorption
inswer:
Watch Video Solution
<b>07.</b> Most of the plants obtain nitrogen from soil in the form of
A. Free nitrogen gas
B. Nitric acid
C. Nitrite
D. Nitrates and ammonium salt
Answer:
Watch Video Solution

**108.** In root nodules of lengumes, leg-haemoglobin is important because

A. It transpots oxygen to the root nodule B. It acts as an oxygen scavenger C. It provides energy to the nitrogen fixing bacterium D. It acts as a catalyst in trans-amination **Answer: Watch Video Solution** 109. The possibility of increase of infection become more due to more supply of A. Potassium B. Magnesium C. Copper D. Nitrogen Answer: d



**110.** Cell elongation is adversely afected by

Or

Element required by plant in large quentity is

- A. Sodium
- B. Cobalt
- C. Manganese
- D. Nitrogen

#### Answer: d



**Watch Video Solution** 

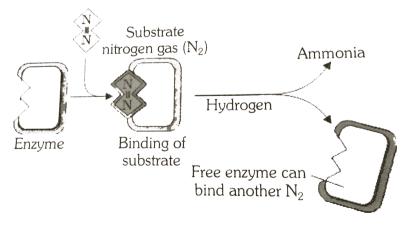
**111.** The enzyme responsible for the reduction of molecular nitrogen to the level of amonia in leguminous root nodule is

Or
The enzyme reponsible for atmospheric nitrogen fixation is
A. Nitrogenase
B. Nitrate reductase
C. Nitrite reductase
D. Hydrogenase
Answer:  Watch Video Solution
112. An important essential element is necessary in plants for protein
synthesis
Or
The most important element associated with protoplasm and
proteinaceous materials of plant is

- B. Phosphorus
- C. Magnesium
- D. Nitrogen



**113.** The given figure represents the Nitrogens fixation. See the diagram and select the correct option



- I. Nitrogenase catalyses the reaction
- II. The formation of ammonia is a reductive process
- III. One molecule of nitrogen produces two molecules of ammonia

IV. Nitrate raductase catalyse the reaction V. Formation of ammonia is an oxidation process VI. One molecule of nitrogen produces one molecule of ammonia A. III, IV and V are correct B. I, V and VI are correct C. IV, V and VI are correct D. I, II and III are correct Answer: **Watch Video Solution** 114. Nitrogen is an important constituent of A. Proteins B. Lipids C. Carbohydrates

D. Polyphosphates

**Answer:** 



**Watch Video Solution** 

**115.**  $N_2+8_{e-}+8H^++16ATP o 2NH+H_2+16ADP+16\Pi$  The above equation refers to

A. Ammonification

B. Nitrification

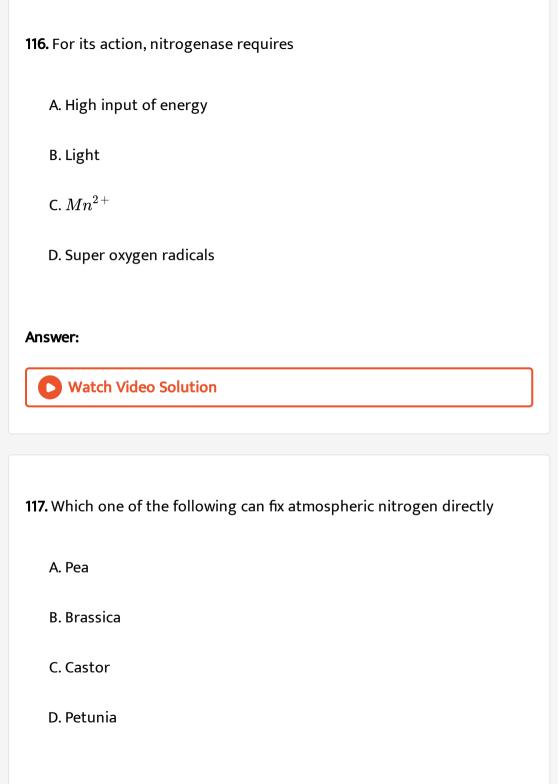
C. Nitrogen fixation

D. Denitrification

Answer:



Watch Video Solution





Watch Video Solution

## **118.** $N_2$ fixation is

- A.  $N_2 
  ightarrow NH_3$
- B.  $N_2 o NO_3$
- C.  $N_2 
  ightarrow$  Amino acid
- D. Both (a) and (b)

## **Answer:**



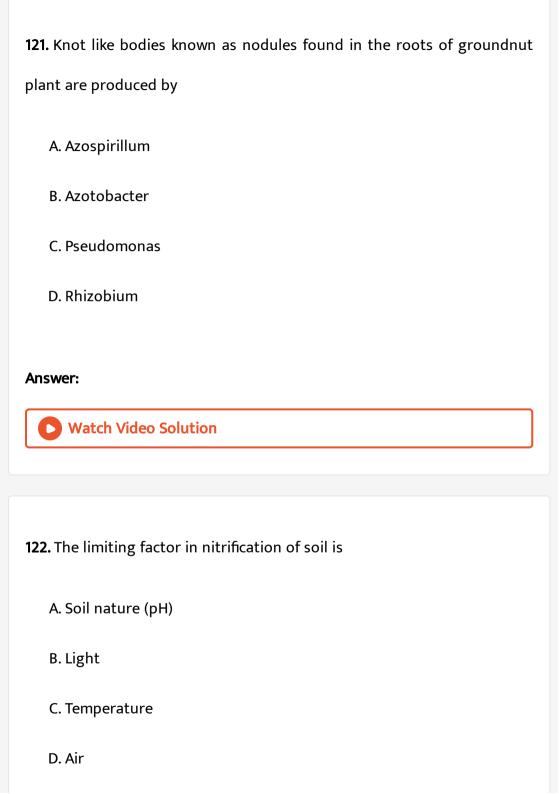
Watch Video Solution

119. Nodules with nitrogen fixing bacteria are present in

A. Cotton

C. Wheat
D. Mustard
Answer: B
Watch Video Solution
<b>120.</b> Legume plants are important for atmosphere because thet
A. Help in $NO_2$ fixation
B. Not help in $NO_2$ fixation
C. Increased soil fertility
D. All of these
Answer:
Watch Video Solution

B. Gram





Watch Video Solution

**123.** Which of the following pigments is essential for nitrogen fixation by leguminous plants

- A. Anthocyanin
- B. Phycocyanin
- C. Phycoerythrin
- D. Leghaemoglobin

## **Answer:**



Watch Video Solution

**124.** Fertilizers have a formula written in a set of three figures 8 -10-22

What for does it stand

A. % of Ca, Mg, PB. % of N, S, PC. % of N, P, KD. % of Fe, Mg, K Answer: 3 Watch Video Solution 125. The conversion of ammonia into nitrites and nitrates is called A. Ammonification B. Nitrification C. Denitrification D. All of these **Answer: Watch Video Solution** 

# **126.** Nif genes occur in

- A. Rhizobium
- B. Aspergillus
- C. Penicillium
- D. Streptococcus

## **Answer: A**



**Watch Video Solution** 

# 127. Nitrates are converted to nitrogen by

- A. Nitrogen fixing bacteria
- B. Ammonification bacteria
- C. Denitrifying bacteria

D. Nitrifying bacteria
Answer:
Watch Video Solution
<b>128.</b> Symbiotic nitrogen fixation in non - leguminous plant is carried out by
A. Azotobacter

B. Brodyrhizobium

Watch Video Solution

C. Clostridium

D. Frankia

**Answer: D** 

**129.** Leguminous plants are able to fix atmospheric nitrogen through the process of symbiotic nitrogen fixation. Which one of the following statements is not correct for this process of nitrogen fixation?

- A. Leg haemoglobin scavenges oxygen and is pinkish in colour
- B. Nodules act as sites for nitrogen fixation
- C. The enzyme nitrogenase catalyses the conversion of atmospheric

$$n_2 o NH_3$$

D. Nitrogenase is insensitive to oxygen

## **Answer:**



**Watch Video Solution** 

130. Higher plants obtain nitrogen from soil that has

A. Six forms  $(NO_3,NO_2,N_2,N_2O,N_2OH,NH_3)$  of nitrogen with

oxidation number ranging from +5 
ightarrow -3

B. Six forms  $(NO_3,NO_2,N_2O_2,N_2,NH_2OH,NH_3)$  of nitrogen with

oxidation number ranging from +6 
ightarrow -3

oxidation number ranging from +5 
ightarrow -3

C. Five forms  $(NO_3,NO_2,N_2,NH_2OH,NH_3)$  of nitrogen with

D. Five forms  $(NO_3,NO_2,N_2,NH_2OH,NH_3)$  of nitrogen with oxidation number ranging from +6 
ightarrow -3

## Answer: c



**131.** The first stable product of fixation of atmospheric nitrogen in leguminous plants is

A. Glutamate

B.  $NO_2^-$ 

C. Ammonia

D.  $NO_3^-$ 

**Answer: C** 



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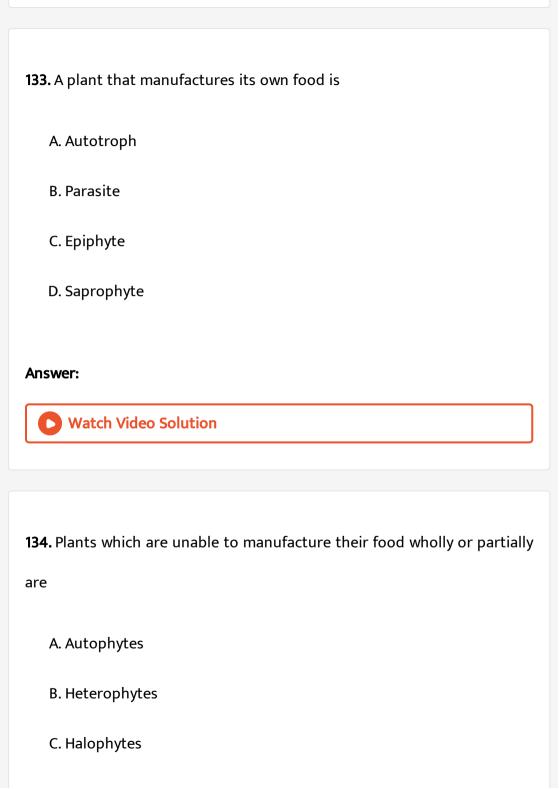
**132.** Which two distinct microbial processes are responsible for the release of fixed nitrogen as dinitrogen gas  $(N_2)$  to the atmosphere

- A. Aerobic nitrate oxidation and nitrite reduction
- B. Decomposition of organic nitrogen and conversion of dinitrogen to ammonium compounds
- C. Enteric fermentation in cattle and nitrogen fixation by Rhizobium in root nodules of legumes
- D. Anaerobic ammonium oxidation and denitrification

## Answer: d



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D. Holophytes	
Answer:	
Watch Video Solution	
Watch video Solution	
135. In Nepenthes (Pitcher plant) the pitcher is formed due to	
modification of	
A. Leaf petiole	
B. Leaf lamina	
C. Tendril	

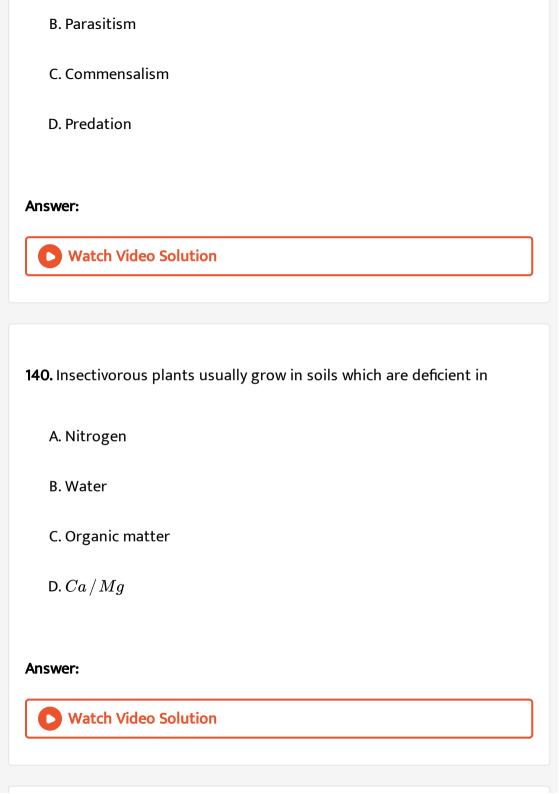


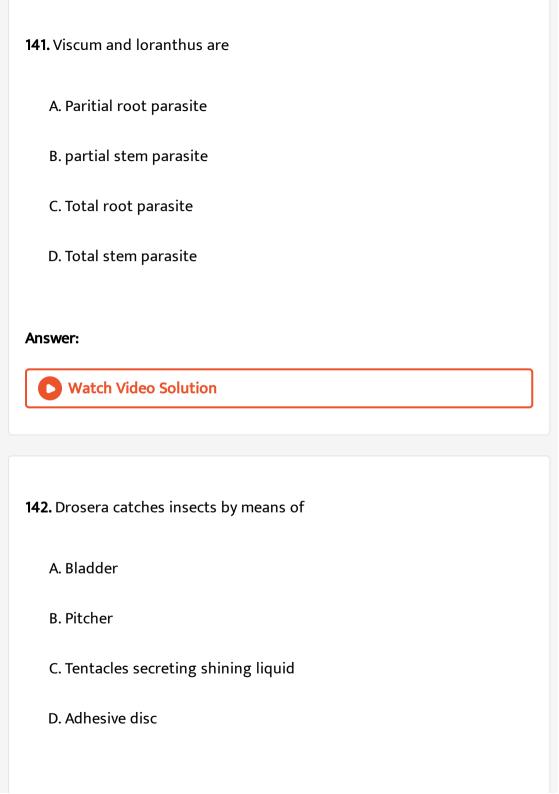
D. Leaflet



<b>136.</b> Epiphytes are the plants which are dependent on other plants
A. Only for water
B. For water and food
C. Only for food
D. Only for shelter (support)
Answer:
Watch Video Solution
<b>137.</b> Partial parasite is dependent upon the host for
A. Support
B. Food at times
C. Water
D. Water and minerals

# **Answer:** Watch Video Solution 138. Cuscuta is an example of A. Ectoparasitism B. Brood parasitism C. Predation D. Endoparasitism **Answer:** Watch Video Solution 139. Viscum album grows on trees This is an example of A. Symbiosis







**143.** Balanophora/Orobanche is a or Biggest flower belongs to a plant which is

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

## **Answer:**



Watch Video Solution

144. Santalum album is

A. Partial root parasite
B. partial stem parasite
C. Total stem parasite
D. Total root parasite
Answer:
Watch Video Solution
<b>145.</b> Select the one, which is pitcher plant
A. Drosera
B. Utricularia
C. Sarracenia
D. Aldrovanda
Answer:
Watch Video Solution

**146.** Majority of the orchids are or A plant growing on another plant without drawing any nourishment is

- A. Epizoics
- B. Epiphytes
- C. Saprophytes
- D. Parasites

## **Answer:**



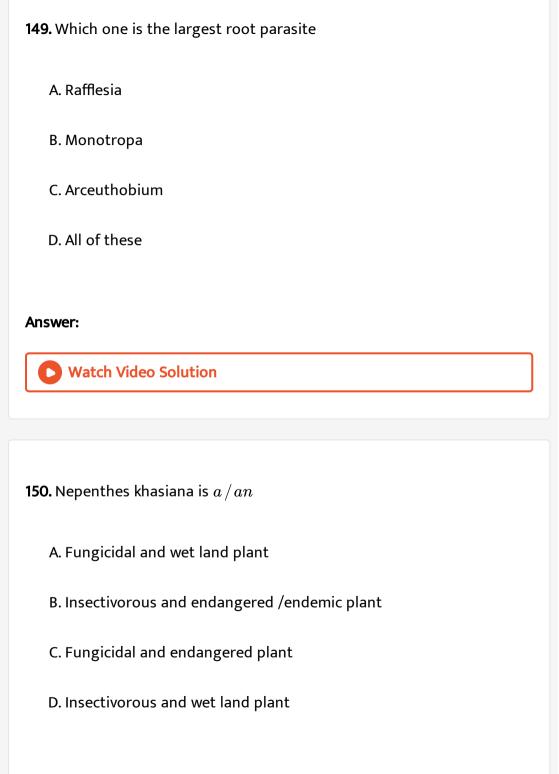
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**147.** Botanical name of Venus Fly trap is or Insectivorous plant with rosette of spiny margined bilobed hinged and winged leaves for catching the prey is

A. Aldrovanda

C. Utricularia
D. Nepenthes
Answer:
Watch Video Solution
<b>148.</b> One of the following in an insectivorous plant
A. Balanophora
B. Orobanche
C. Rafflesia
D. Drosera
Answer:
Watch Video Solution

B. Dionaea muscipula





**151.** Botanical generic name of bladderwort is or A rootless aquatic in which a portion of leaf is modified to form a bladder for catching small aquatic animals is

- A. Drocera
- **B.** Nepenthes
- C. Utricularia
- D. Dionaea

## Answer:



**Watch Video Solution** 

152. Plants obtaining food from other plants by means haustoria are

A. Symbionts B. Parasites C. Hydrophytes D. Saprophytes **Answer:** Watch Video Solution 153. Insects captured by carnivorous plants partially meet their requirement of A. Organic matter B. Enzymes C. Water D. Nitrogen **Answer:** 

154.	Ner	hent	hes	ıs
	110	,	1103	13

- A. Both producer and primary carnivore
- B. Producer
- C. Consumer
- D. None of these



**155.** Rhizophora is an example of or the plants that grow on saline soils with high concentration of  $NaC1,\,MgSO_4\,$  and  $\,MgC1_2\,$  are called

- A. Lithophyte
- B. Fresh water aquatic

D. Halophyte
Answer:
Watch Video Solution
<b>156.</b> A plant living symbiotically inside another plant is
A. Saprophyte
B. Endophyte
C. Semiparasite
D. Parasite
Answer:
Watch Video Solution

C. Mesophyte

<b>157.</b> which is not an insectivorous plant or A pitcher plant without lid
A. Dionaea
B. Dischidia
C. Drosera
D. Pinguicula
Answer:
Watch Video Solution
<b>158.</b> A pair of insectivorous plants is
A. Drosera and Rafflesia
B. Nepenthes and Bladderwort
C. Dionae and Viscum
D. Venus fly trap and Rafflesia



## Watch Video Solution

## 159. Match the following with correct combination

Column I Column II

A Cuscuta 1 Saprophyte

B Eichornia 2Pneumatophore

C Monotropa 3 Insevtivourous plant

D Rhizophora 4 Parasite

E Utricularia 5 Root pocket

A. A-4,B-3,C-1,D-5,E-2

B. A-4,B-5, C-1, D-2, E-3

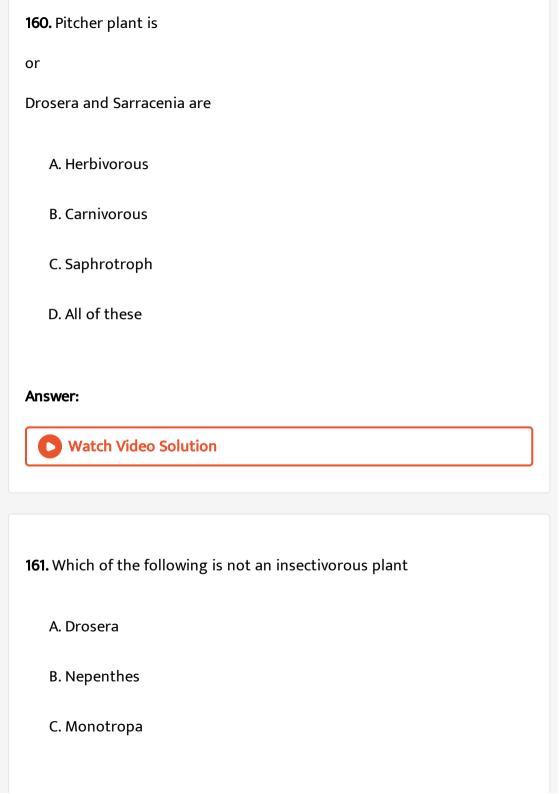
C. A-2, B-3, C-1, D-5,E-4

D. A-3,B-1,C-5,D-4,E-2

## **Answer:**



**Watch Video Solution** 



Answer:
Watch Video Solution
<b>162.</b> When a plant undergoes senescence, the nutrients may be
A. Exported
B. Withdrawn
C. Translocated
D. None of the above
Answer:
Watch Video Solution

D. Utrcularia

**163.** Choose the correct option Mycorrhiza is a symbiotic association of fungus with root system which helps in

 ${\cal A}.$  absorption of water

 ${\it B}.$  mineral nutrition

C. translocation

 ${\it D}.{\it gaseous}$  exchange.

A. only A

B. only B

C. Both A and B

D. Both B and C

## **Answer:**



**Watch Video Solution** 

**164.** Which one of the following roles is not characteristic of an essential element?

- A. Being a component of biomolecules
- B. Changing the chemistry of soil
- C. Being a structural component of energy releated chemical compounds
- D. Activation or ingibition of enzymes



retarded

becomes stunted

**165.** Which one of the following statements can best explain the term critical concentration of an essential element?

- A. Essential element concentration below which plant growth is
- B. Essential element concentration below which plant growth

C. Essential element concentration below which plant remains in the vegetative phase

D. None of the above

#### Answer: A



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**166.** Deficiency symptoms of an element tend to appear first in young leaves. It indicates that the element is relatively immobile. Which one of the following elemental deficiency would show such symptoms?

A. Sulphur

B. Magnesium

C. Nitrogen

D. Potassium

## Answer:

**167.** Which one of the following symptoms is not due to manganese toxicity in plants?

- A. Calcium translocation in shoot apex is inhibited
- B. Deficiency in both Iron and Nitrogen is induced
- C. Appearance of brown spot surrounded by chlorotic veins
- D. None of the above

#### **Answer: B**



**Watch Video Solution** 

**168.** Reaction carried out by  $N_2$  fixing microbes include

$$2NH_3+3O_2
ightarrow2NO_2^-+2H^++2H_2O$$
 ...(i)

 $2NO_2^- + O_2 
ightarrow 2NO_3^-$  ....(ii) Which of the following statements about

these equations is not true?

- A. Step (i) is carried out by Nitrosomonas or Nitrococcus
- B. Step (ii) is carried out by Nitrohacter
- C. Both steps (i) and (ii) can be called nitrification
- D. Bacteria carrying out these steps are usually photoautotrophs



- **169.** With regard to the bilogical nitrogen fixation by Rhizobium in association with soy bean, which one of the following statement/statements does not hold true?
  - A. Nitrogenase may require oxgyen for its functioning
  - B. Nitrogenase is MO-Fe protein
  - C. Leg -haemoglobin is a pink coloured pigment
  - D. Nitrogenase helps to convert  $N_2$  gas into tow molecular of ammonia



**170.** Match the element with its associated functions/roles and choose the correct option among given below.

- A. Boron (i). Splitting of  $H_2O$  to liberate  $O_2$  during
- B. Manganese (ii). Needed for synthesis of auxins
- C. Molybdenum (iii). component of nitrogenase
- D. Zinc (iv). Pollen germination
- E. Iron (v). Component of feredoxin
  - A. A I, B ii, C iii, D iv, E v
  - B. A iv, B-I, C-iii, D-ii, E-v
  - C. A-iii, B-ii, C-iv, D-v, E-i
  - D. A-ii, B-iii, C-v, D-l, E-iv

#### Answer:



171. Plants can be grown in (Tick the incorrect option)
A. Soil with essential nutrients
B. Water with essential nutrients
C. Either water or soil with essential nutrients
D. Water or soil without essential nutrients
Answer:
Watch Video Solution
172. Which of the following deficiency may cause leaf tip bending
172. Which of the following deficiency may cause leaf tip bending  A. Sulphur
A. Sulphur
A. Sulphur  B. Nitrogen

# Answer: **Watch Video Solution** 173. EDTA is much used in tissue cultures, it is a A. Hormone B. Vitamin C. Buffer D. Nutrient Answer: c **Watch Video Solution** 174. Match the following and choose the correct combination from the options given

		Column II	
A Potassium	1	Constituent of ferredoxin	
B Sulphur	2	Involved in stomatal movement	
C Molybdenum	3	Needed in the synthesis of auxin	
D Zinc	4	Component of nitrogenase	
A. A-2, B-1 , C-4, D-3			
B. A-1, B-2, C-3, D	)-4		
C. A-4, B-3, C-2, D-1			
D. A-1, B-3, C-4, D-2			
Answer: A  Watch Video Solution			
Watch Video	301		
Watch Video	301		
		o be required in large amounts for plant growth	
<b>175.</b> Minerals know include	vn t		
175. Minerals know include  A. Calcium, mag	vn t	o be required in large amounts for plant growth	

D. Phosphorus, potassium, sulphur. Calcium

#### Answer: d



**Watch Video Solution** 

176. Match the following mineral element with their deficiency symptom and choose the coorect option

Chlorotic veins Calcium  $\boldsymbol{A}$ 1

Potassium 2 Delayed germination of seeds

3 Necrosis of young leaves 4 Scoroched leaf tips Iron D

Malformed leaves  $\boldsymbol{E}$ Phosphorous 5

A. A-3, B-1, C-5, D-2, E-4

Zinc

B. A-1, B-4, C-5, D-3, E-2

C. A-3, B-4, C-5, D-1, E-2

D. A-2, B-3, C-4, D-1, E-5

#### Answer: c



**177.** Which of the following is considered to be the best chemical method of fixing atmopheric nitrogen

- A. Fisher method
- B. Decan method
- C. Haber-Bosch method
- D. Paranas-Meyerhoff method

#### Answer: c



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**178.** Fly -ash is a/an

- A. Infection particulate matter
- B. Light airborne particulate matter

- C. New name of orchid plant
- D. Causal organism of various disease

# Answer: b



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# 179. Which one of the followign is correctly matched

- A. Passive transport of nutrients ATP
- B. Apoplast Plasmodesmata
- C. Potassium Readily immobilisation
- D. Bakane of rice seedlings F.Skoog

# Answer: c



**180.** On the basis of symtoms of chlorosis in leaves, a student inferred that this was due to the deficiency of nitrogen. This inference could be correct only if yellowing of leaves appeared first in

- A. Young leaves
- B. Old leaves
- C. Young leaves followed by old leaves
- D. Old leaver followed by young leaves

#### Answer: b



- 181. Aldrovanda is
  - A. Fly catcher plant
  - B. Water flea trap
  - C. Devil's foot

D. None of these

#### **Answer:**



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**182.** Which of the following shows that metabolic energy is required in the absorption of ions

- A. More ions absorption in presence of oxygen
- B. Less absorption of ions in presence of oxygen
- C. More ions absorption in presence of ATP
- D. More ions absorption in presence of NAD

# Answer: B



**183.** According to the well known theory of transport of solutes across a cell membrane, what happens when sugan is passed through it

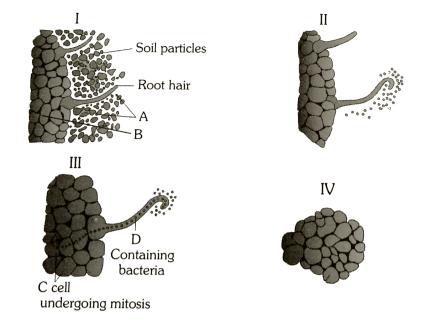
- A.  $Na^{\,+}$  flows in the direction of the sugar
- B.  $Na^{\,+}$  flows independent of sugar molecules
- C.  $NA^{\,+}$  flows against the sugar molecules
- D.  $Na^+$  ions do not flow at all

#### **Answer: 3**



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**184.** The given figure indicates the development of root nodule in soyabean



Identify A, B, C and D respectively

A. A- Nitrosomonas bacteria, B- Cortex cell, C - Inner cortex, D - Infection thread

- B. A Rhizobial bacteria, B Endodermal cell , C Inner Endodermis, DInfection thread
- C. A Rhizobial bacteria, B Cortex cell, C- Inner cortex, D Infection thread

D. A - Rhizobial bacteria, B - Cortex cell, C - Outer cortex, D - Infection thread

# Answer: c

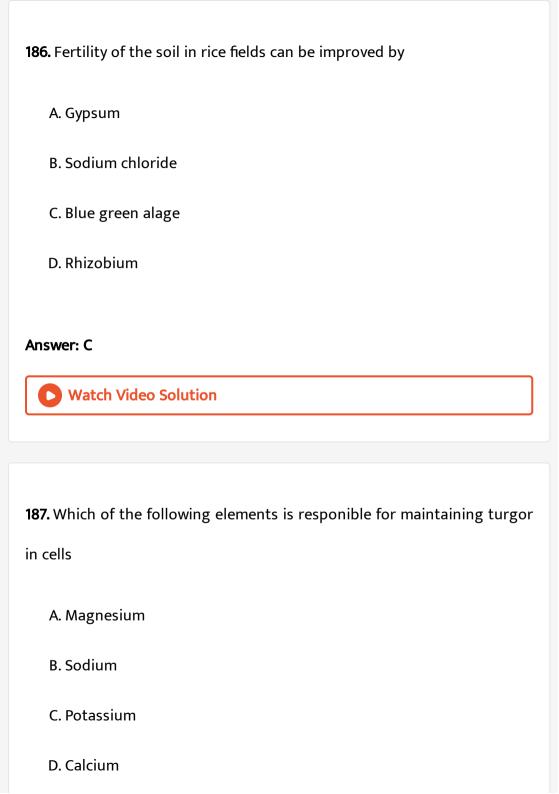


# 185. The smallest angiosphermic/dicot parasite is

- A. Arceuthobium
- B. Wolffia
- C. Cassytha
- D. Rafflesia

# Answer: a





#### Answer: c



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**188.** Assertion: Plants lack excretory organs.

Reason: Plant usually absorb essential nutrients and lead a passive life.

- A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion
- B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion
- C. If the assertion is true but the reason is false
- D. If both the assertion and reason are false

# Answer: b



**189.** Assertion: Leguminous plants are nitrogen fixers.

Reason: Leguminous plants have Rhizobium in their root nodules

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

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

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

D. If both the assertion and reason are false

#### Answer: a



**190.** Assertion : Insectivorous habitat of plants is to cope up  ${\cal O}_2$  deficiency Reason : Insectivorous plants are partly autotrophic and partly heterotrophic

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

correct explanation of the assertion

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

correct explanation of the assertion

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

D. If the assertion is false but reason is true

correct explanation of the assertion

#### Answer: d



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191. Assertion: Use of fertilizers greatly enhances crop productivity

 ${\it Reason: Irrigation is very important in increasing crop productivity.}$ 

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

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

correct explanation of the assertion

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

D. If both the assertion and reason are false

## **Answer:**



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192. Assertion: Hydroponics is used for solution culture.

Reason: A balanced nutrient solution contains both essential and nonessential elements

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

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

correct explanation of the assertion

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

D. If both the assertion and reason are false

#### **Answer:**



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**193.** Assertion : The leaves of cauliflower becomes flaccid and brown in molybdenum deficiency

Reason : Cauliflower plant is affected by whiptail disease in molybdenum deficiency

- A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion
- B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion
- C. If the assertion is true but the reason is false
- D. If both the assertion and reason are false



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194. Assertion: In Dionaea, each lamina has marginal teeth

Reason: Marginal teeth of Dionaea help in prey capturing

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

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

#### **Answer:**



195. Assertion: Plants absorb nitrogen in the form of nitrates only.

Reason: Nitrogen is the most critical element.

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

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

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

D. If the assertion is false but reason is true

#### **Answer:**



**196.** Assertion: Magnesium is important in photosynthesis and carbohydrate metabolism.

Reason :  $Mg^{\,+\,+}$  is involved in the synthesis of nucleic acids

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

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

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

D. If both the assertion and reason are false

#### **Answer:**



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**197.** Assertion: Manganese is an activation of enzyme nitrite reductase

Reason: Manganese deficient cells prefer ammonia over nitrate

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

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



- **198.** Assertion: Nitogen fixing bacteria in legume root nodules survive in oxygen depleted cells of nodules.
- Reason: Leghaemoglobin completely removes oxygen from the nodule cells.
  - A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion
  - B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

- C. If the assertion is true but the reason is false
- D. If both the assertion and reason are false



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199. Assertion: Deficiency of sulpur causes chlorosis in plants

Reason: Sulphur is a constituent of chlorophyll, proteins and nucleic acids.

- A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion
- B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion
- C. If the assertion is true but the reason is false
- D. If both the assertion and reason are false



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**200.** Assertion : Exanthema disease occure due to deficiency of manganese.

Reason: Reclamation is a disease of cereals

- A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion
- B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion
- C. If the assertion is true but the reason is false
- D. If the assertion is false but reason is true

#### **Answer:**



201. Assertion: Iron is a microelement

Reason: Microelements are required in traces only, less than 1 mg/gm of dry matter

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

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

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

D. If both the assertion and reason are false

#### Answer:



Fe-EDTA

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202. Assertion: In solution culture of plants, iron is added in the form of

Reason: Hydroponics set-up is costly A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false D. If both the assertion and reason are false Answer: **Watch Video Solution** 203. The element which is required by the sea plants is A. Cobalt

B. Zinc

C. Copper

D. Sodium

#### **Answer:**



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- 204. The ability of the venus fly trap of capture insects is due to
  - A. Chemical stimulation by the prey
  - B. A passive process requiring no special ability on the part of the plant
  - C. Specialized muscle-like cells
  - D. Rapid turgor pressure changes

# Answer: d



**205.** It is possible to determine whether an element is essential by observing growth of plants

A. On soil form which the particular element is removed

B. On soil in which only the particular element is present

C. On an inert medium to which solution of only the particular element is added

D. On an inert medium to which a nutrient solution excluding that particular element, is added

## Answer:



# 206. Which statement is wrong

A. Plants take very little amount of mineral elements from soil

B. Plants absorb one thing at a time either water or mineral salt

- C. Root hair absorb water and minerals together
- D. Mineral absorption primarily takes place by active method

# Answer: b

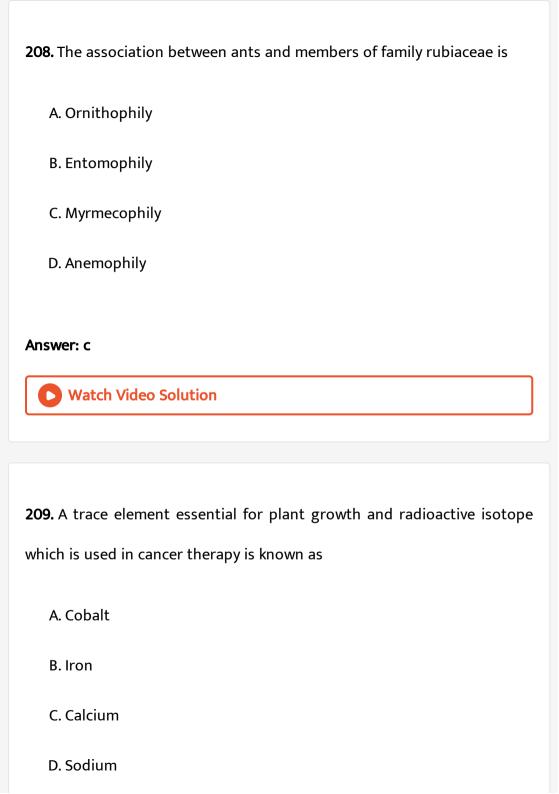


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- 207. Chlorosis, etiolation and albinism are caused by the deficieny of
  - A. Iron, light and certain genes
  - B. Zinc, iron, and magnesium
  - C. Magnesium, iron, zinc, light and certain genes
  - D. Manesium, zinc and light

# Answer: C





#### Answer: a



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**210.** The enzyme commonly presents in insectivorous plants to fulfil the need of their specific habit

- A. Trypsin
- B. Pepsin
- C. Pectinase
- D. Cellulase

# Answer: 2



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211. An example of a parasitic plant that is also strictly epiphytic is

- A. Cuscuta(dodder)
- B. Viscum(mistletoe)
- C. Refflesia
- D. Orobanche

## Answer: b

