

## **BIOLOGY**

# BOOKS - VGS BRILLIANT BIOLOGY (TELUGU ENGLISH)

# **NUTRITION- FOOD SUPPLYING SYSTEM**

Textual Lesson Part Review Of Your Previous Knowledge

1. What are heterotrophs? How do heterotrophs get

their food ?

2. What are autotrophs ? How do autotrophs get their

food?



#### Improve Your Learning Conceptual Understanding

#### 1. Write differences between

Autotrophic nutrition - Heterotrophic nutrition :



2. Write differences between

Ingestion - Digestion :



#### 3. Write differences between

Light reaction - Dark reaction:

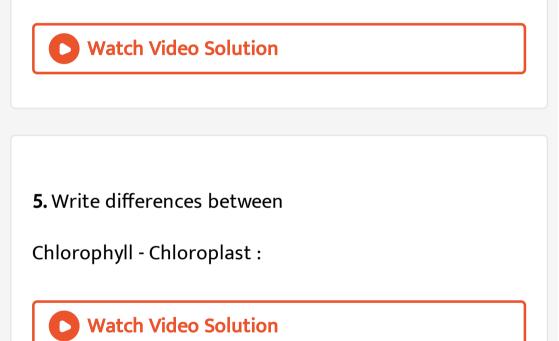


#### 4. Write differences between

Nutrition in autotrophs occurs when there is light and without light also. What is the difference between these two situations ?

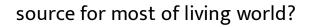
Differentiate the reactions that take place in presence

of light and the reactions which do not require light in photosynthesis.



6. Give reasons.

Why photosynthesis is considered as the basic energy





7. Give reasons.

How can we say that photosynthesis is the basic energy

source for the living world ?



8. Give reasons.

Why is it better to call the dark phase of

photosynthesis as a light independent phase?

9. Give reasons.

Why is it necessary destarch a plant before performing

any experiment on photosynthesis?



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10. Give reasons.

Why is it not possible to demonstrate respiration in

green plant kept in sunlight?

11. Give examples.

**Digestive enzymes** 



12. Give examples.

Organisms having heter()trophic nutrition

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13. Give examples.

Vitamins



14. Give examples.

Nutritional deficiency diseases

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15. Where do plants get each of the raw materials

required for photosynthesis ?

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فبالحم الأحدا بالمد

**16.** Explain the necessary conditions for autotrophic nutrition and what are its by products.



**17.** With the help of chemical equation explain the process of photosynthesis in detail with the help of flow chart.

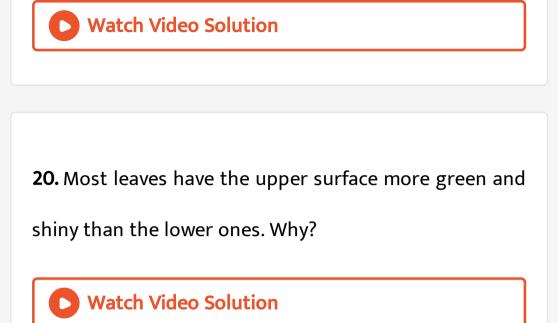


#### **18.** Name the three end products of phot0\$ynthesis.



19. What is the connecting substance between light

reaction and dark reaction ?



### 21. Explain the structure of cell organelle that performs

the photosynthesis, with the help of a labelled diagram.



22. Explain the structure of cell organelle that performs

the photosynthesis, with the help of a labelled diagram.



23. Explain the structure of cell organelle that performs

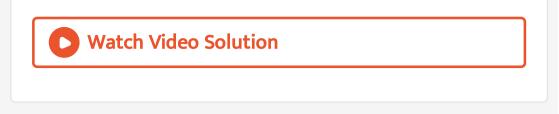
the photosynthesis, with the help of a labelled diagram.



24. What is the role of acid in stomach?



**25.** What is the function of digestive enzyme ?



**26.** Describe with diagram haw villi are helpful in absorption of digested food in small intestine.

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27. How digested food is absorbed in small intestine ?



**28.** How is the digested fat absorbed?

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<b>29.</b> What is emulsification ? How does it help in					
digestion of fats ?					
Watch Video Solution					
<b>30.</b> What is the role of saliva in the digestion of food?					
<b>Watch Video Solution</b>					

**31.** What is the role of saliva in the digestion of food?

<b>O</b> Watch Video Solution						

**32.** What will happen to protein digestion as the medium of intestine is gradually rendered alkaline ?

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33. What is the role of roughages in the alimentary

tract?

34. What is malnutrition? Explain some nutrition

deficiency diseases.



Improve Your Learning Asking Questions And Making Hypothesis

1. How do non-green plants such as fungi and bacteria

obtain their nourishment?

**2.** If we keep on increasing  $CO_2$  concentration in the

air, what will be the rate of pho-tosynthesis?



3. What happens to plant if the rate of respiration

becomes more than the rate of photosynthesis ?



**4.** Why do you think that carbohydrates are not digested in the stomach ?



Improve Your Learning Experimentation And Field Investigation

1. Rajani told that "Chapatis will not digest in stomach".

Will you agree with her statement? Why?

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2. What chemical do we use to test the presence of

starch ?

**3.** Pushpa wants to conduct an experiment to know whether the starch is present in given leaf or not. For this,

a) what apparatus does she require ?

b) what procedure does she follow ?

c) what precautions does she need to take ?

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4. How would you demonstrate that green plants

release oxygen when exposed to light ?

5. Write the experimental procedure to prove that oxygen is produced during photo-synthesis in the presence of light.



**6.** Write the experimental procedure to prove that oxygen is produced during photo-synthesis in the presence of light.



**7.** We have conducted experiment that proves the release of oxygen when photosynthesis happens ? i)

What are the plants used for this experiment ? Where do they grow ?

ii) How did you conduct the above experiment ? In which context are large number of air bubbles released? Did you notice?



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#### Improve Your Learning Information Skills And Projects

**1.** Collect information from your primary health centre

of malnutrition child at various ages and make a table

your own and display in the classroom.

S.No.	Age group	No. of children with malnutrition		
		Proteins	Calories	Vitamins
	1			



Improve Your Learning Communication Through Drawing Modal Making

1. If there were no green plants, all life on the earth

would come to an end ! Comment.



2. Would the survival of organisms become difficult if there are no green plants on the earth. How do you support ?

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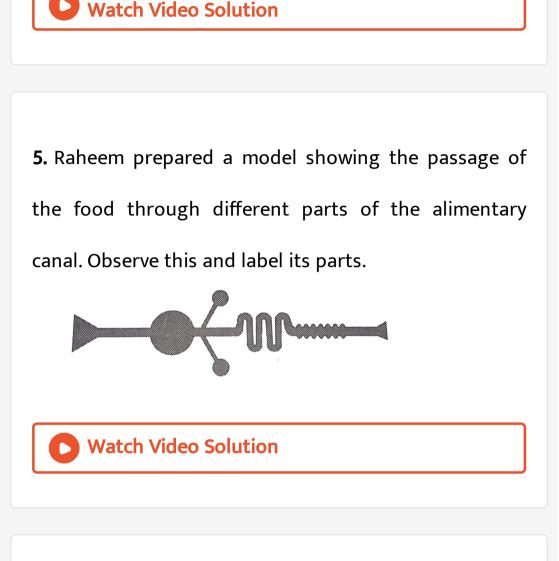
3. Draw a neat labelled diagram of chloroplast found in

leaf, and its role in photosyn-thesis.

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**4.** Draw the labelled diagram  $\cdot$  of human digestive system. List out the parts where peristalsis takes place.





6. Observe the following diagram and write a note on

light dependent, light indepen- dent reactions.

**View Text Solution** 

 Almost all the living world depends on plants for food material. How do you appre- ciate the process of making food by the green plants ?

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**2.** Almost all the living world depends on plants for food material. How do you appre- ciate the process of making food by the green plants ?



**3.** Even a hard solid food also becomes smooth slurry in the digestive system by the enzymes released at a particular time. This mechanism is an amazing fact. Prepare a cartoon on it.

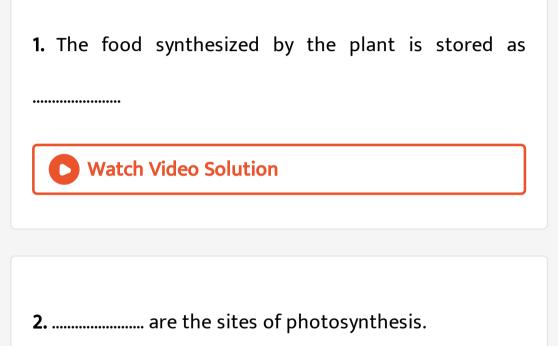
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Improve Your Learning Application To Daily Life Concern To Biodcersity

**1.** What food habits are you going to follow after reading this chapter (Nutrition - Food supplying system) ? Why ?



#### Fill In The Blanks





3. Pancreatic juice contains enzymes for carrying the

process of digestion of ..... and .....



4. Name the finger like projection which increase the

surface area of absorption in small intestine.



5. The gastric juice contains ...... acid.



6. ..... vitamin is synthesized by bacteria present

in intestine.



#### **Choose The Correct Answer**

**1.** Which of the following organisms take the food by parasitic nutrition ?

A. Yeast

**B.** Mushrooms

C. Cuscuta

D. Leeches

Answer: A::C::D



2. The rate of photosynthesis is not affected by

A. Light intensity

B. Humidity

C. Temperature

D. Carbon dioxide concentration

#### Answer: B





**3.** A plant is kept in dark cupboard for about forty eight hours before conducting any experiment on photosynthesis in order to

A. Remove chlorophyll from leaves

B. Remove starch from leaves

C. Ensure that no photosynthesis occurred

D. Ensure that leaves are free from the starch

**Answer: B** 

4. The digestive juice without enzyme is

A. Bile

B. Gastric juice

C. Pancreatic juice

D. Saliva

Answer: A

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5. In single celled animals, the food is taken by

A. The entire body surface

B. Mouth

C. Teeth

D. Vacuoles

Answer: A



6. Which part of the plant takes in carbon dioxide from

the air for photosynthesis ?

A. Root hair

B. Stomata

C. Leaf vein

D. Sepals

Answer: B

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Questions Given Ln The Lesson 1 Mark Questions

1. Can you think of some raw materials needed for

photosynthesis?

2. What could be the end products of the process of

photosynthesis ?



3. Do you think solar energy transforms - into chemical

energy by the process of photosynthesis?



4. Do you think solar energy transforms - into chemical

energy by the process of photosynthesis?



5. Do you think the equation tells us about atl the

materials involved ?

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6. What had Priestly done to introduce the mint plant

without disturbing the experiment set-up?

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7. What precautions do you need while removing test

tube from the beaker? Discuss with your teacher.



8. Which part of leaf turns blue black ? What about the

remaining part ?

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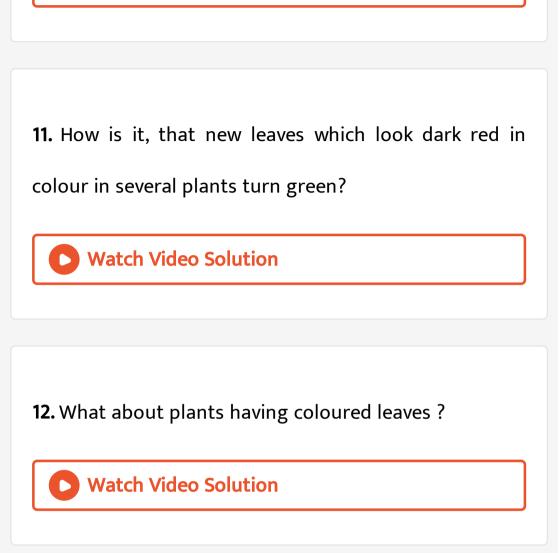
9. Observe the colour of leaf stained with iodine. Can

you tell why it is stained differently?



10. What about plants having coloured leaves ?





13. Where are chlorophyll and other pigments present

in the plant?

14. What happens to the food once it enters our body?

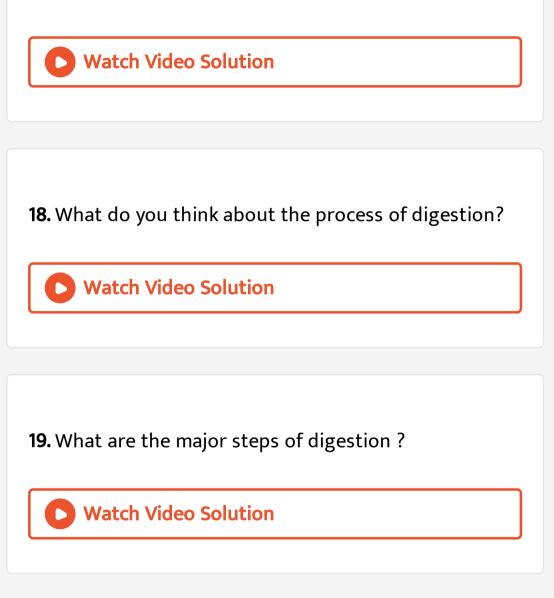


15. Name the enzymes which act on carbohydrates.

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16. Which juice contains no enzymes ?

17. What are the enzymes that act on proteins ?



Questions Given Ln The Lesson 2 Marks Questions

1. How did Pries tly light the candle from outside ?

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<b>2.</b> Do you find any relationship between candle, rat, tnint plant ? Discuss.					
<b>Watch Video Solution</b>					

3. Why was the plant kept in dark and then in sunlight?

4. Why did we study two leaves in this (Carbondioxide is

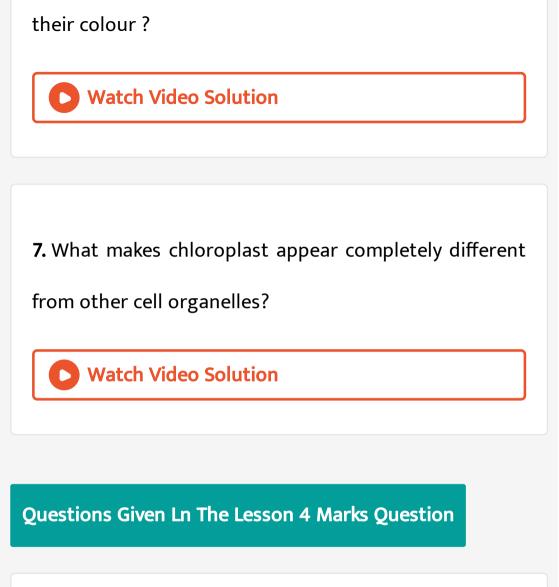
necessary for photosynthesis) experiment?



5. What made plants carry out photosynthesis while even green coloured animals (like some birds) could not?

> Watch Video Solution

**6.** Do you think the new reddish leaves of plants also carry out photosynthesis ? What could be the role of



**1.** Collect information about pellagra and discuss with your teacher.

# Creative Questions For New Model Paper 1 2 Mark Questions



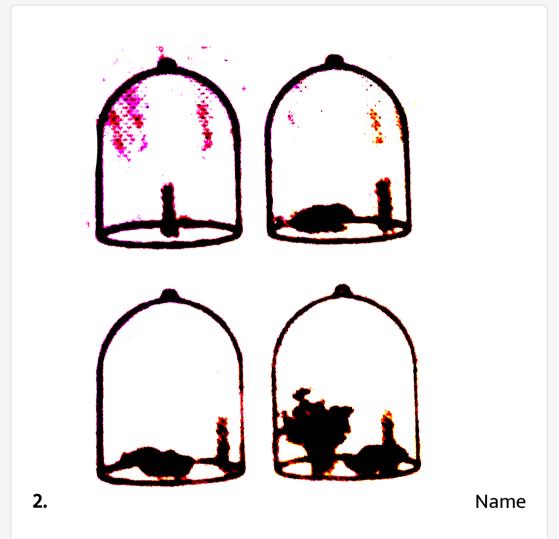
Can you

### name the test shown in the figure ?

1.

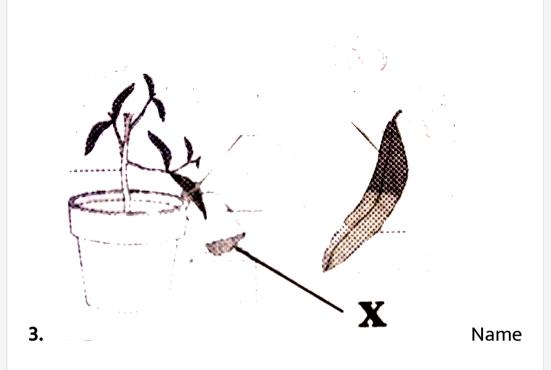


# **Watch Video Solution**



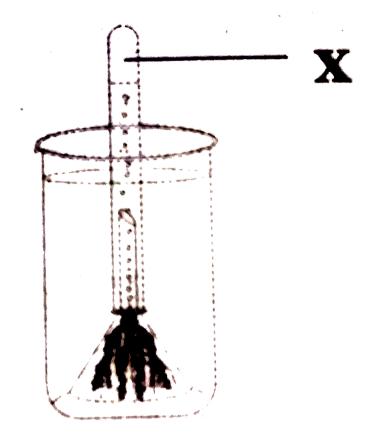
the scientist who conducted the given experiment.





the labelled part 'x' in the above picture.

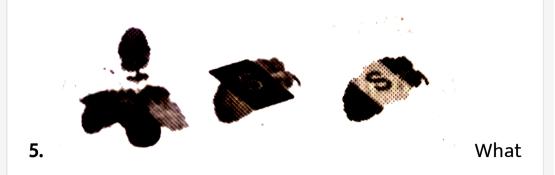




What is

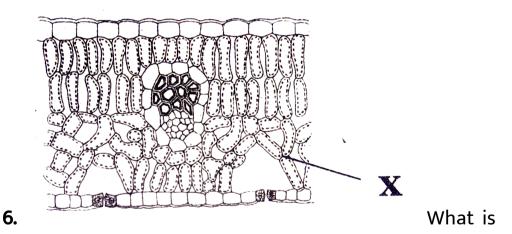
the labelled part 'x' in the above picture ?



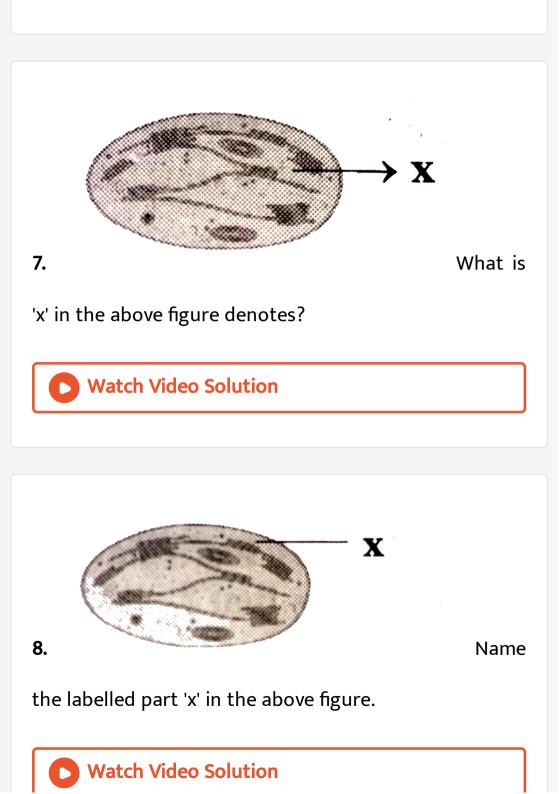


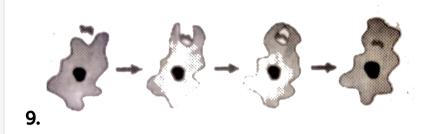
do yon prove from this experiment ?

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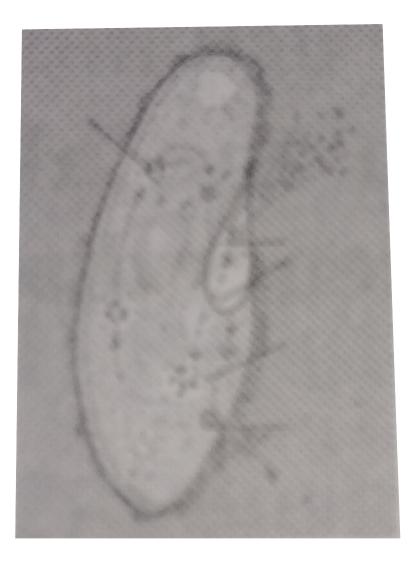
the labelled part 'x' in- the above figure ?





What is

the life process going on in Amoeba?



What

## is the life process going on in Paramoecium ?





The

above shown plant is an example for





#### What

# does the given figure represent?

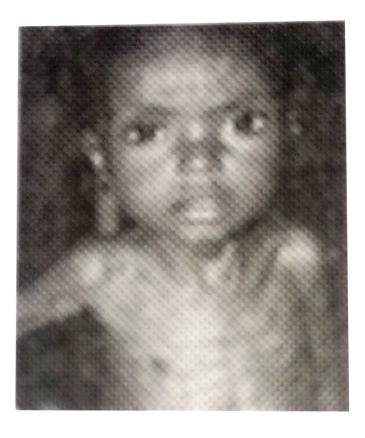




Tlie

boys shown in the figure are suffering from which malnutrition disease?





The.

boy in the picture has a malnutri- tion disease. What is

that ?

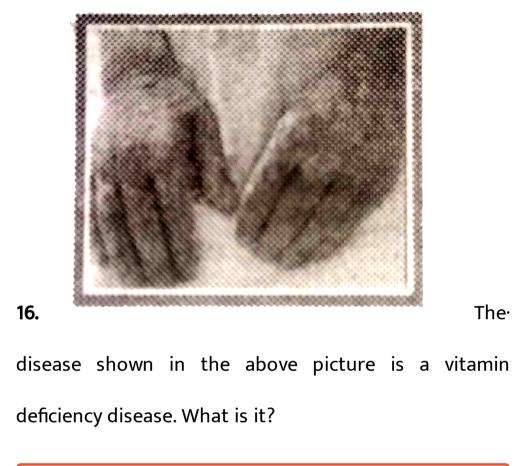


boy in the picture is suffering from a health hazard.

The

What is that ?

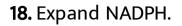






### 17. Expand A. T.P.





_			
Watch	Vidoo	Co	lution
Watch	VIGEO	30	IULIOII

19. Expand A.D.P.



20. Identify the scientist with the followirig lines.

His experiment confirmed that gaseous exchange was going on and plants were giving out a gas that supported burning and was essential for the survival of

animals.



**21.** Identify the scientist with the help of the following paragraph.

He proposed the famous and well accepted chemical

equation for photo-synthesis in the year 1931

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**22.** Identify the scientist with the help of the following paragraph.

He was a famous Dutch Scientist. He studied the way in which plants formed oxygen and they produce it in the presence of light only, in the year 1779.



**23.** Identify the scientist with the help of the following lines.

In the early 20th century, he detected the point of maximum rate of photosynthesis. He conducted his · experiments on the strands of algae exposed to different colours.



24. Identify the scientist with the help of the following

lines.

In the year 1817, they obtained an extract of the green coloured substance, named it chlorophyll, which means green leaf,



**25.** Identify the scientist with the help of the following

lines.

In 1883, he found that chlorophyll is present organelles

within the cell. They are called chloroplasts.

**26.** Identify the scientist with the help of the following lines.

In 1954, he able to break the cell so gently that whole chloroplasts could be obtained and observed the photosynthesis stages.

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27. Identify the scientist with the help of the following

lines.

He discovered photolysis of water which means splitting by light. He proposed that

 $H_2O 
ightarrow H^+ + OH^-$ 

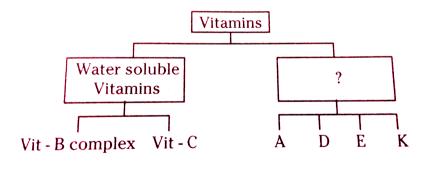




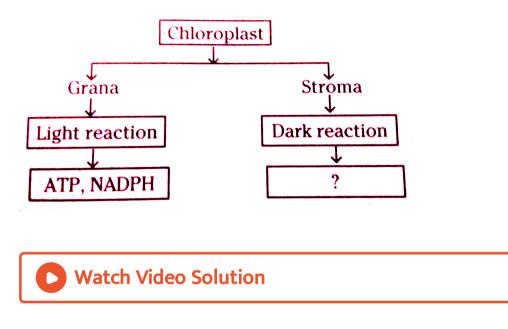


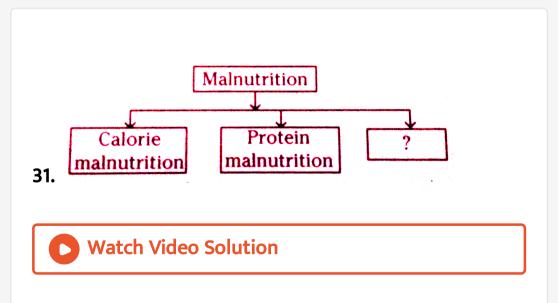
29. Observe the following classification and complete

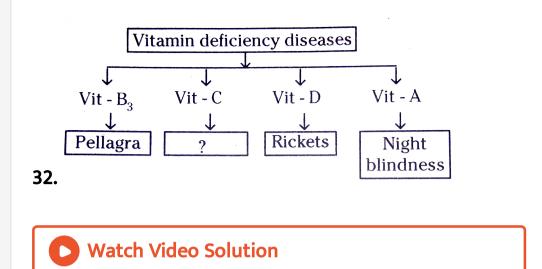
the blank.



## **30.** Observe the classification and complete the blank.







33. I am a digestive juice. I have no enzymes. Who am I?



**34.** I am a vitamin. My deficiency causes pernicious anaemia. I am synthesized by bacteria in the intestine ?



35. I am an enzyme produced by the salivary glands. 'I

act on carbohydrates. Who am I?

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**36.** I am a cell organelle. I can trap the solar energy and perform photosynthesis. Who am I ?

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**37.** I am a root like structure. I can penetrate into the tissue of the host plant. I can absorb food and water





**38.** Identify the mis-matched pair.

1) Calciferol - Rickets

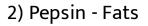
2) Phylloquinone -Sterility in females.

3) Ascorbic Acid -Scurvy.

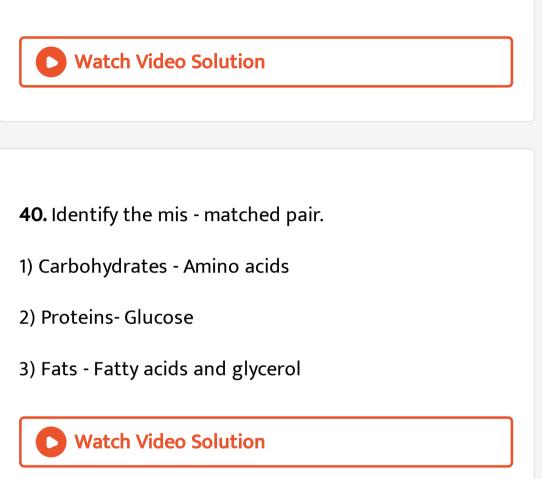
**D** Watch Video Solution

**39.** Identify the mis - matched pair.

1) Ptyalin - Carbohydrates



3) Lipase - Proteins



**41.** Which of the following group does not represent

digestive enzymes ?

A. Pepsin, Trypsin, Amylase, Lipase

B. Thyroxine, Adrenalin, Somatotrophin, Testosterone

Watch Video Solution **42.** Which of the following group represent water soluble vitamins? A. IVit-A, Vit-D, Vit - K, Vit-E B. B Complex, Vit - C Watch Video Solution

**43.** Which group of the following does not represent the vitamin deficiency diseases?

A. Beri - beri, scurvy, pellagra, glossitis

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B. Kwashiorkar, marasmus, diabetes, obesity

**44.** Which -of the following group constitute the right passage of food in the alimentary canal? A) Food  $\rightarrow$  mouth  $\rightarrow$  buccal cavity  $\rightarrow$  pharynx  $\rightarrow$ oesophagus  $\rightarrow$  stomach  $\rightarrow$  large intestine  $\rightarrow$ small intestine  $\rightarrow$  anus  $\rightarrow$  rectum B) Food  $\rightarrow$  mouth  $\rightarrow$  buccal cavity  $\rightarrow$  pharynx  $\rightarrow$ oesophagus  $\rightarrow$  stomach  $\rightarrow$  small intes-tine  $\rightarrow$ large-intestine  $\rightarrow$  rectum  $\rightarrow$  anus



**45.** Read the sentence, find the error and rewrite it.

Dark -reaction takes place in stroma. That means it takes place when it is dark at night.

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**46.** Read the sentence, find the error and rewrite it.

The chlorophyll on exposure to sunlight becomes activated by absorbing electrons.



**47.** Read the sentence, find the error and rewrite it. In the dark phase, the hydrogen of the NADPH is used to combine with  $CO_2$  by utilising photon energy and to produce glucose.

C

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48. Comp, lete the following blanks.



**49.** Complete the following blanks.

..... (1) are the universal food providers. It is possible

due to the presence of a green pigment called .....

(2).



**50.** Complete the following blanks.

Chlorophyll is present ..... (1) tissue. of plants .

...... (2) help in the opening and closing of stomata.



**51.** Complete the following blanks.

We can observe ...... (1) nutrition in animals like amoeba, paramoecium and in man...... (2) plant is an example for parsitic nutrition.



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52. Complete the following blanks.

Ptyalin and amylase acts on ...... (1). Bile juice is

secreted by ..... (2) in digestive system.

**53.** Complete the following blanks.

Kwashiorkar is due to the deficiency of .....(1) and

Marasmus occurs because fo ...... (2).

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54. Complete the following blanks.

.....(1) is due to over eating of excess fo calories in take. It is a big health hazard. It leads to the diseases

like .....(2).

55. I present in the sunrays. I am a smallest unit of light

energy. Who am I?



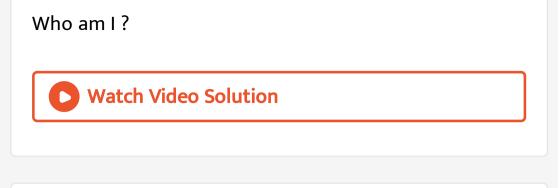
56. I am a vitamin. I am resphonsible for normal growth

of the body. My deficiency leads to night blindness, and

xerophthalmia. Who am I?

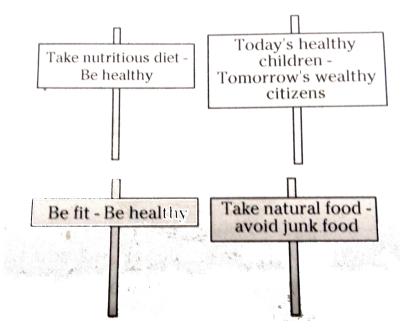
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**57.** I am a vitamin. I am present in green leafy vegetables and milk. I am responsible for blood clotting.



**58.** The following placards are prepared in your school for conducting a rally. Can you name the occasion to

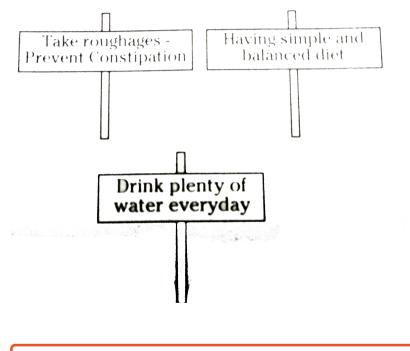
#### use them ?





59. The folloiwn placards are prepared by your friends.

IN which occasion do you use them ?





**60.** Identify the mismatched pair.

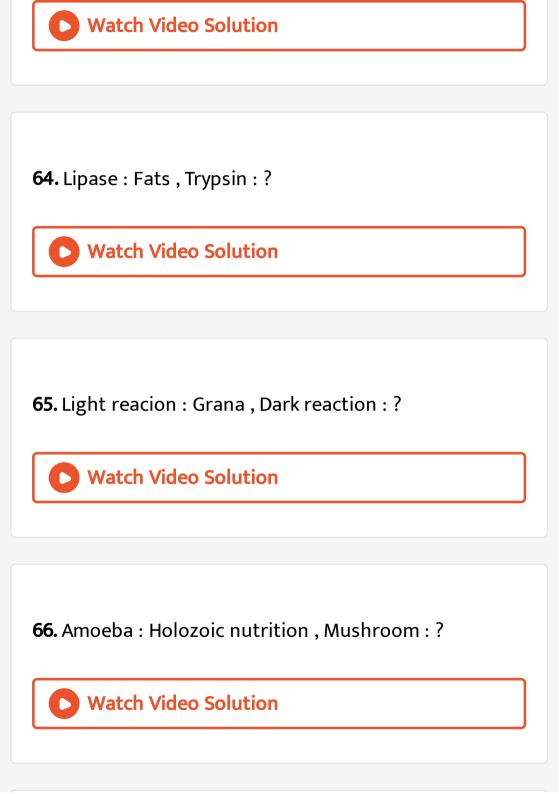
1) Folic Acid - Anaemia

2)Cyancobalamine - Pernicious anaemia

3) Pantothenic acid - glossitis.

<b>Vatch Video Solution</b>
<b>61.</b> Retinol : Vitamin - A, Ascorbic Acid :
<b>Vatch Video Solution</b>
<b>62.</b> Rickets : Vitamin - D , Night blindness : ?
<b>Watch Video Solution</b>

**63.** Kwashiorkar : Protein deficiency , Marasmus : ?



**67.** Cuscuta : Parasitic adaptation , Rhizobium : ?

<b>Watch Video Solution</b>
<b>68.</b> Mohl's leaf experiment : Importance of $CO_2$ Light screen experiment : ?
<b>Watch Video Solution</b>
<b>69.</b> ATP : Energy currency , ATP and NADPH: ?
Watch Video Solution

70. Photosynthetic phase : ATP and NADPH Biosynthetic

phase : ?



**71.** Observe the statements and identify the correct statement.

a) Autotrophs are the organisms capable of trapping

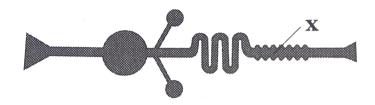
solar energy.

b) The chemical formula of glucose is  $C_6 H_{11} O_6$ 



72. A student prepared a model of alimentary canal just

as shown below.



Name the labelled part 'x' in the above picture.

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73. Identify the mismatched pair.

- 1) Tapeworm -Saprophytic Nutrition
- 2) Mushroom -Parasitic Nutrition
- 3) Green plants -Autotrophic Nutrition

74. Identify the mis-matched pair.

- 1) Trypsin Gastric glands
- 2) Pepsin Pancreas
- 3) Bile Liver

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### 75. Oxygen: ·21%, Carbondioxide:

76. Complete the blanks.

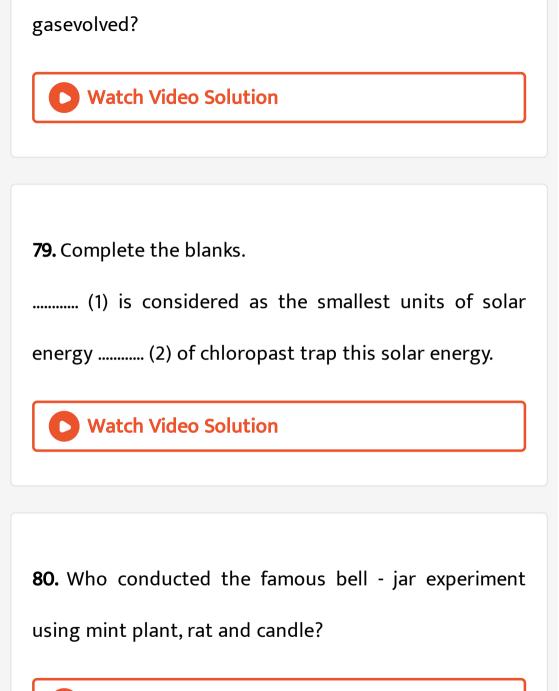
...... (1) is very essential for the synthesis of nucleic acids ............ (2) vitamin is required for the formation of collagen.

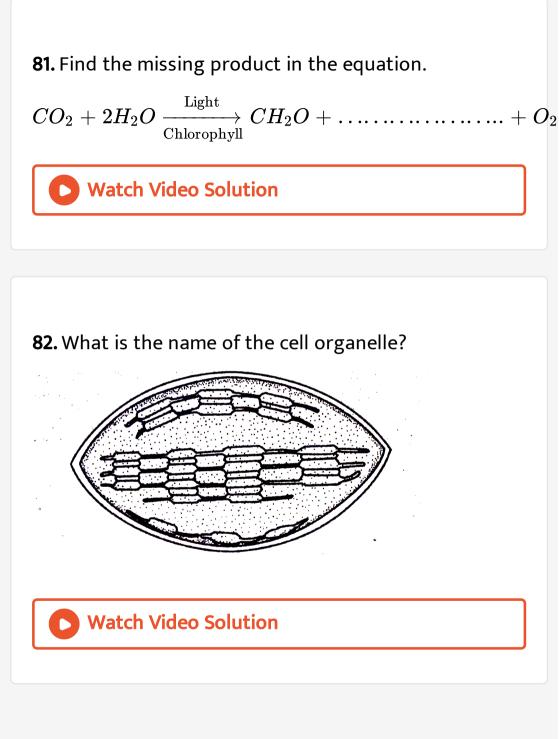
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77. Green plants: Roots, Cuscuta: ...............

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**78.** When we put a glowing splinter at the mouth of the test tube. It would burn into flames. What might be the





83. What symptoms do you observe in the disease

caused due to the deficiency of vitamin-A?



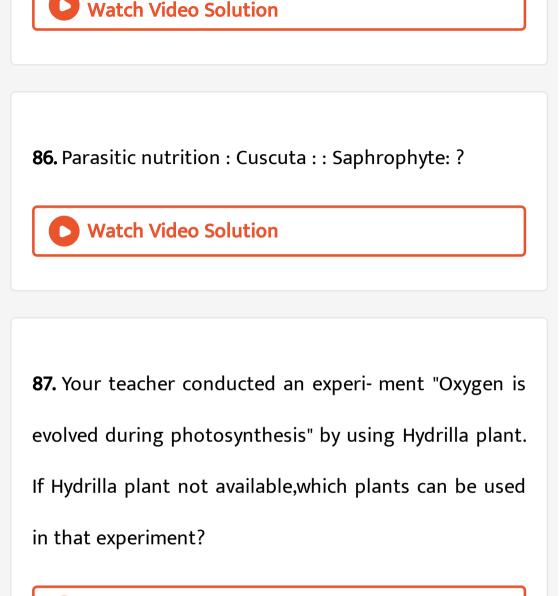
**84.** In the light reaction, light energy is converted into chemical energy, photolysis of water, and  $CO_2$  is converted into glucose.

All these reactions takes place in ......



**85.** Pepsin : Proteins :: Lipase : ?





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**88.** Identify the mis-matched pair.



**89.** Identify the incorrect of the following pairs.

Calciferol - Rickets

Biotin - Anaemia

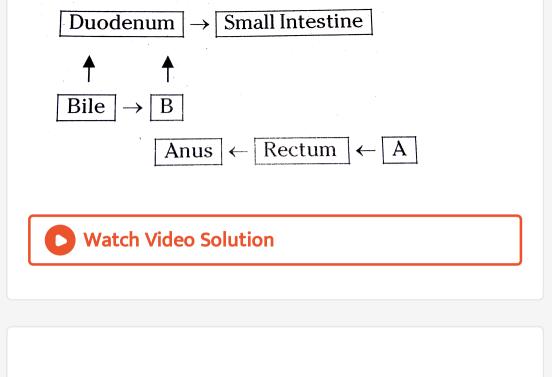
Ascorbic acid - Scurvy

Niacin - Pellagra



90. Fill the following flow chart with correct organs A &

Β.



**91.** A person suffering from improper formation of bones, knockness, swollen wrists and delayed dentition. What might be the reason ?

92. Find out wrong pair .

Saliva - Ptyaline

Pancreatic juice - Amylase

Gastric juice - Lipase

Intestinal juice - Peptidose



93. What is the reason to keep a plant in dark for 48

hours to know photo-synthesis experiment in plants ?



94. I found that water was essential for the increase of

plant mass. Name that scientist.



95. I am a sphincter . I allow the chyme in small

quantities into the duodenum who am I?



**96.** Find out who am I.

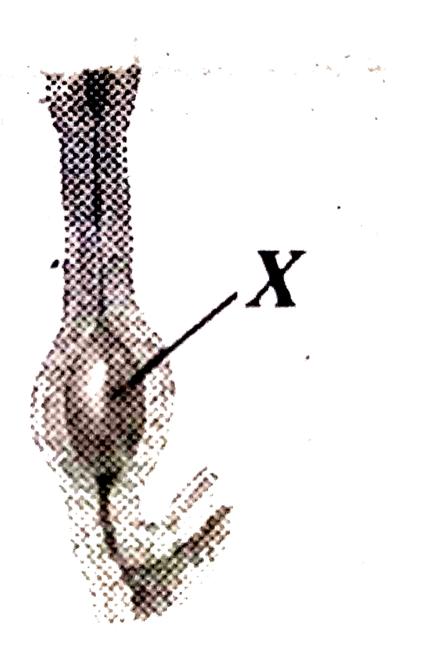
I am a vitamin. Healing of wounds , fracture of bon  $\cdot$  es

does not takes place in the absence of me. I am in

vegetables , citrus fruits and in germinating seeds.



# **97.** Observe the diagram and identify the part X'.



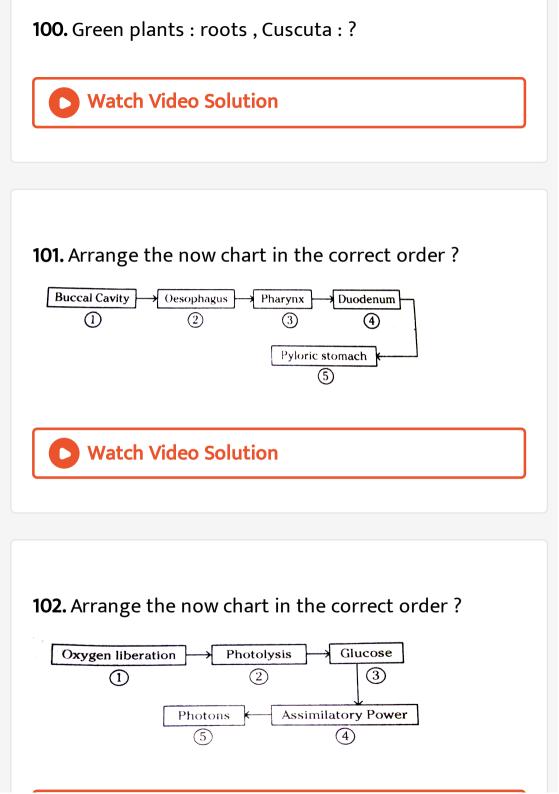


## **98.** Identify the mismatched pairs:

- (1)Vitamin-A Pellagra
- (2)Vitamin-C Night blindness
- (3)VItamin-D Rickets

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99. Mitochondria : Power house of the cell, ATP: ...... ?

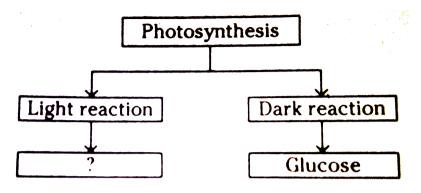


Watch Video Solution

## **103.** Find out the missing thing from the table.

uer raper - 2010 ( )
Base
Number of organism
Flow of energy

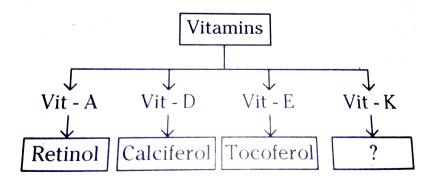
#### 104. Complete this flow chart.

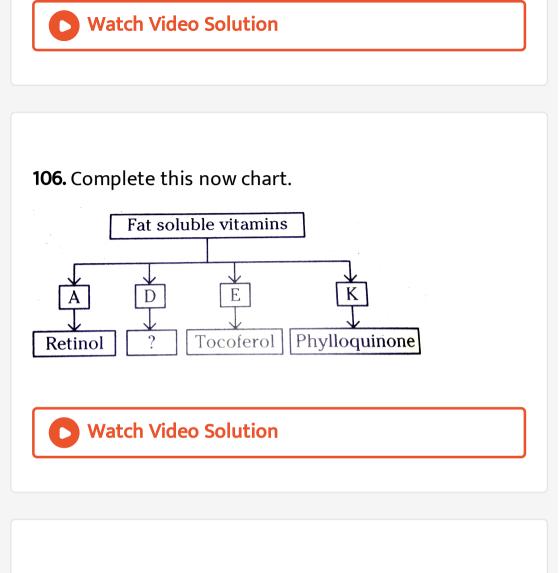


ATP, NADPH

Watch Video Solution

105. Fill this now chart .....





### 107. Complete this table.

Enzyme	Location of release
1) Pepsin	Stomach
2) Trypsin	?





### 108. Complete this table.

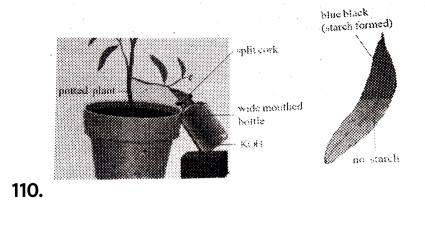
Type of food	End products
1) Carbohydrates	Glucose
2) Proteins	?



#### 109. Complete this table.

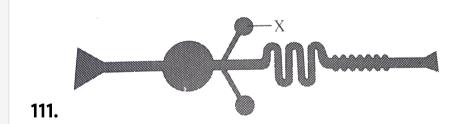
Enzyme	Organ of release
1) Ptyalin	Salivary glands
2) Amylase	?





The aim of the abo~e experiment to prove the importance of ...... In photosynthesis.

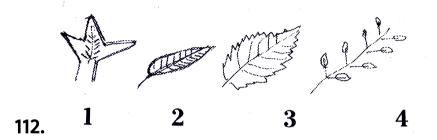
O Watch Video Solution



. . . . . . . .

In 'the a hove model of digestive "d system x enotes

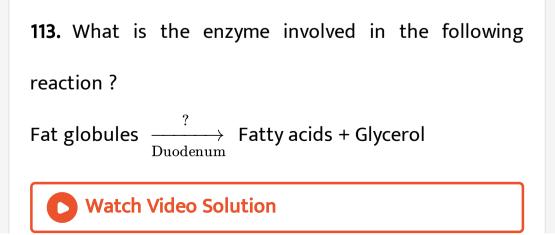




Which is the correct leaf for the experimerit to prove

 $CO_2$  is essential for photosynthesis ?





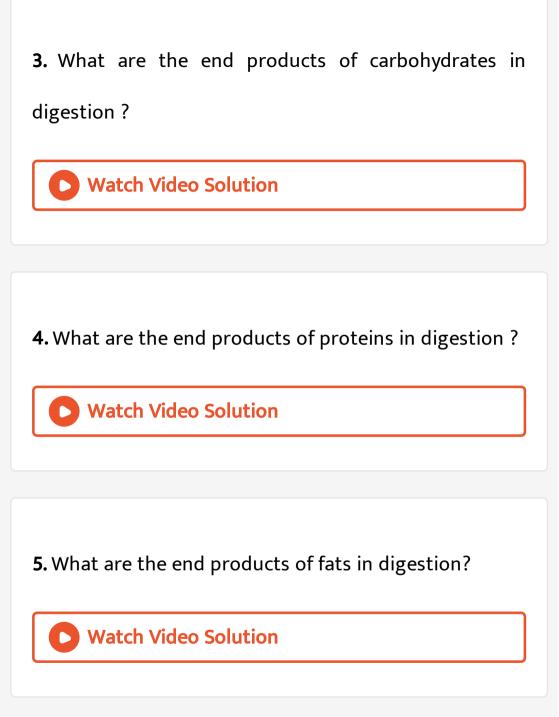
Creative Questions For New Model Paper Preparation Questions For The Examination Purpose

**1.** Name the acid that is present in gastric juice.

Watch Video Solution

2. Where do you find haustoria?





6. What chemical do we use to test the presence of starch? Watch Video Solution 7. Deffoiency of folic acid results in? Watch Video Solution 8. What is the function of stomata in plants? Watch Video Solution

**9.** What Is the reason for occurrence of Marasmus disease ?



**10.** What is the reason for the occurrence of Kwashiorkar disease in children ?

**Vatch Video Solution** 

**11.** In which form the plants store their food?

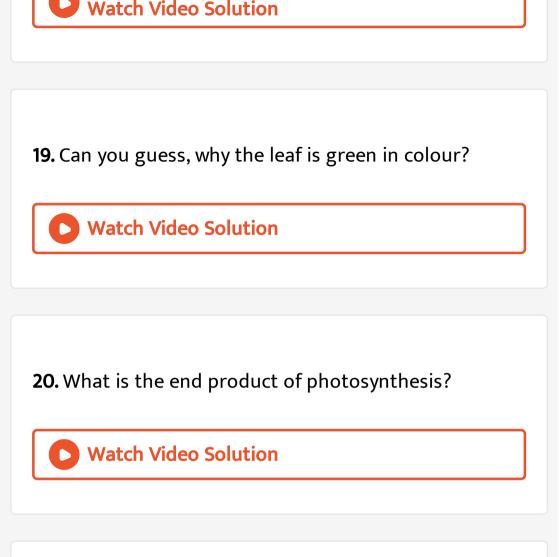


**12.** What is the result of improper mastication of food ?

<b>Watch Video Solution</b>
<b>13.</b> Name the gas that is liberated at the end of photosynthesis.
<b>Vatch Video Solution</b>
<b>14.</b> Which gas is utilised by the plants during photosynthesis ?
Watch Video Solution

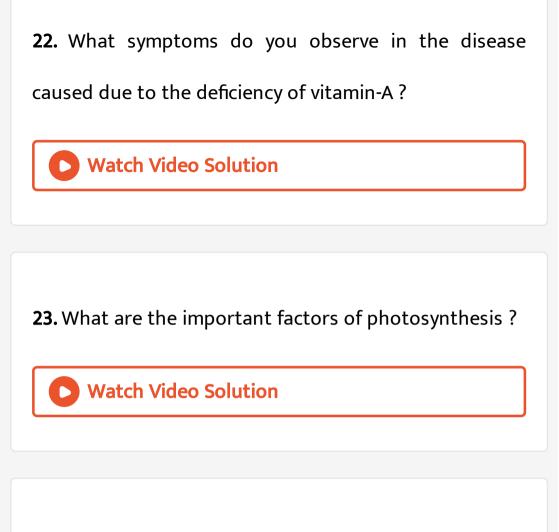
**15.** Name the water soluble vitamins.

Watch Video Solution
<b>16.</b> Name the fat soluble vitamins.
Watch Video Solution
<b>17.</b> What is the site of photosynthesis ?
Watch Video Solution
<b>18.</b> Name the pigment present in chloroplast.



**21.** Give an example for parasitic plant.



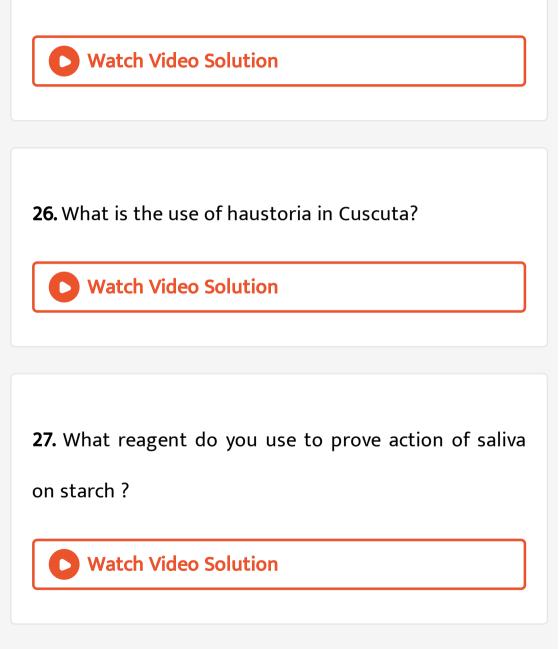


24. In which cell organelle, photolysis of water takes

place?

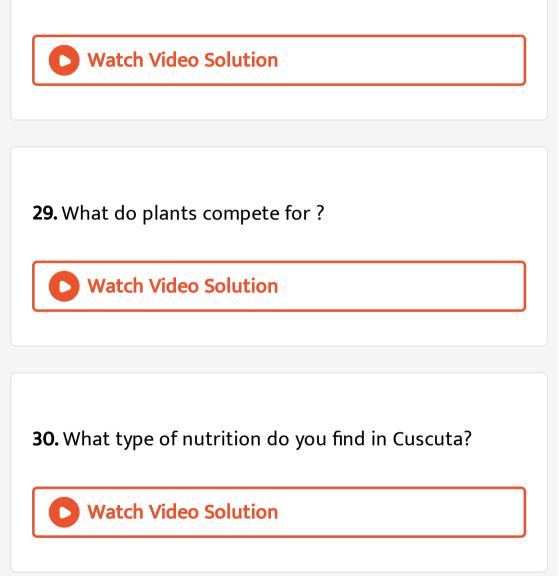
25. In which part of chloroplast, the light reaction takes

place ?



28. Name the vitamin that is present in pulses, liver,

milk, kidney etc. It's deficiency causes nervous disorders.



31. What type of nutrition do you find in mushrooms?

Watch Video Solution
<b>32.</b> What type of nutrition do you observe in green plants ?
<b>Watch Video Solution</b>

**33.** Name the nutrition do you observe in animals.

**34.** What are the enzymes that act on proteins in digestion ?



35. What is the aim of Hydrilla plant experiment in

photosynthesis?

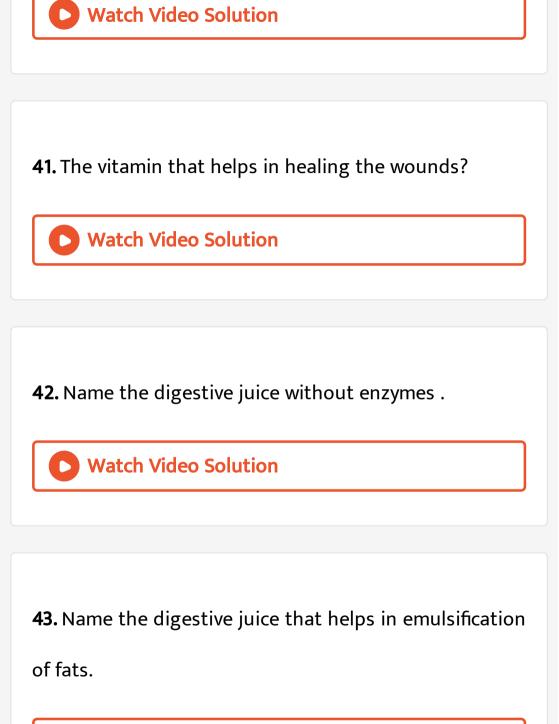
Watch Video Solution

36. Which vitamin deficiency is responsible for Rickets ?



**37.** What is the vitamin that is available in sunlight ?

Watch Video Solution
<b>38.</b> What is the chemical name of Vitamin-A ?
Watch Video Solution
<b>39.</b> What is the chemical name of Vitamin-C ?
<b>Watch Video Solution</b>
<b>40.</b> What is the enzyme present is saliva?



44. What is the use of KOH solution in Mohl's half leaf

experiment?

> Watch Video Solution

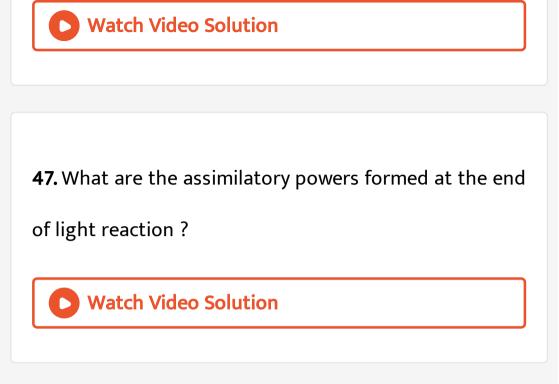
**45.** A person is suffering from improper formation of bones, knockness, swollen wrists and delayed dentition

what might be the reason ?



46. Splitting of water molecule during photosynthesis is

known as ?

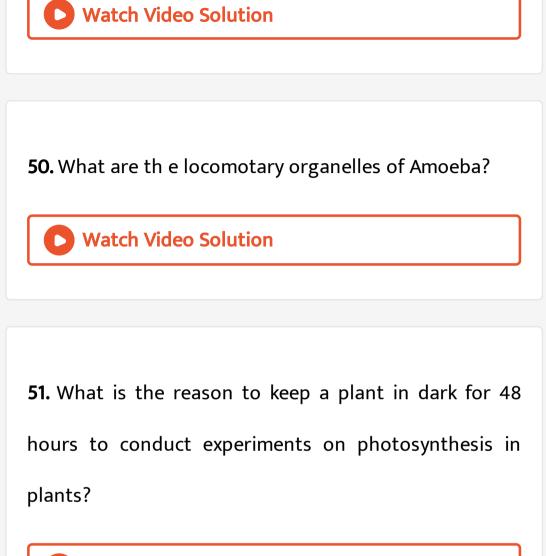


**48.** Which substance undergoes reduction in dark phase -1?



**49.** What are the end products of dark reaction ?







**52.** In which place of digestive system, complete digestion of ,carbohydrates, proteins and fats takes place ?

<b>Watch Video Solution</b>
53. Bile juice is secreted from
<b>O</b> Watch Video Solution

54. Name the partially digested food in the mouth.



**55.** Name the partially digested food in stomach.

<b>Watch Video Solution</b>
<b>56.</b> What do you call the completely digested food in small intestine ?
<b>Vatch Video Solution</b>
<b>57.</b> What is the location of pyloric sphincter ?
Watch Video Solution

58. In which part of the alimentary canal the water from

undigested waste is reabsorbed?

Watch Video Solution
<b>59.</b> What is the use of villi in small intestine ?
<b>Vatch Video Solution</b>
<b>60.</b> What is the result of deficiency of vitamin - Thiamine

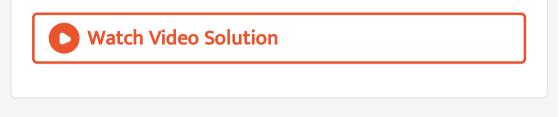


61. What is the reason for the occurrence of Glossitis?

<b>Vatch Video Solution</b>
<b>62.</b> Name the vitamin responsible for the coagulation of blood.
<b>Vatch Video Solution</b>
<b>63.</b> What is the first enzyme to mix with food in the digestive system?
Watch Video Solution

64. Where are proteins first digested in the alimentarr

canal?



**65.** Name the factor responsible for opening and closing of stomata.

Watch Video Solution

66. Name the digestive juice that contains hydrochloric

acid.

67. What is the vitamin, synthesized by bacteria present

in the intestine ?



68. Which colour will indicate the presence of starch in

the leaves of a plant after Iodine test?



69. In which form the glucose is stored in plants after

photosynthesis?



**70.** Name the scientist who found that water was essential for increase of plant mass.

**71.** Who coined the name oxygen ?

Watch Video Solution

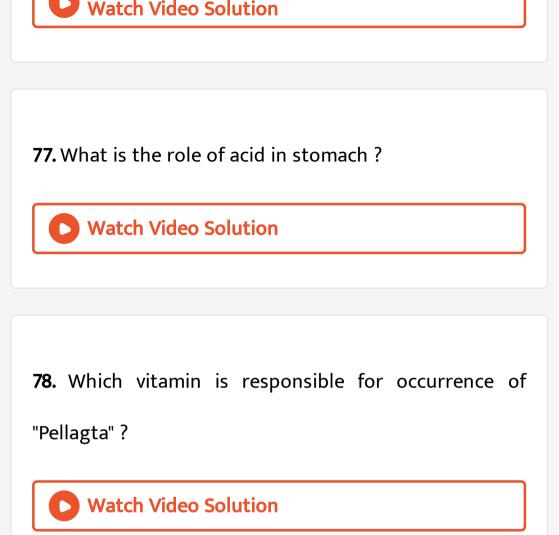
Watch Video Solution

72. Who discovered chloroplasts in plants?

**73.** What is the process of taking food inside the body?

<b>Watch Video Solution</b>
<b>74.</b> What do villi consist of ?
Watch Video Solution
<b>75.</b> What happens in Hill reaction ?
Watch Video Solution
<b>76.</b> What is the reason for obesity'?





**79.** Obesity causes many diseases. Give two examples.

80. The deficiency of which vitamin is responsibleforthe

disease "Scurvy" ?



81. Kamala is suffering from fertility disorders. What

might be the reason for that?



82. What is the exocrine and endocrine gland of our

body?

83. Name the enzymes present in pancreatic juice.

0	Watch	Video	Solution	
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84. How many pairs of salivary glands are present in our

mouth?

Watch Video Solution

85. What is the digestive juice secreted by walls of small

intestine?



86. What is responsible for the easy movement of food

bolus in the oesophagus ?

Watch Video Solution

**87.** The type of nutrition we can observe in Amoeba.

Watch Video Solution

**88.** How the leaves of Cuscuta are modified for its parasitic mode of life?

89. Who discovered chloroplasts in plants?

Watch Video Solution
<b>90.</b> What is the colour of pigment chlorophyll -b ?
Watch Video Solution
<b>91.</b> What is the colour of pigment chlorophyll -a ?
<b>Vatch Video Solution</b>

92. Name the scientists who are associated with the

discovery of chlorophyll.



93. Who conducted the bell jar experi- ment to prove

the importance of oxygen?

Watch Video Solution

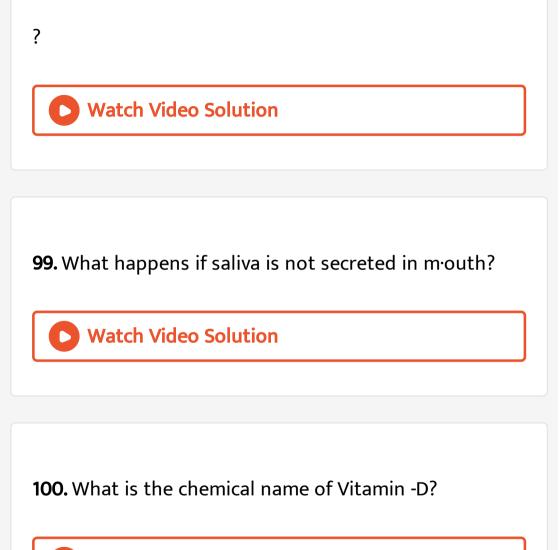
94. What are the internal factors of photosynthesis?



95. What are the external factors of photosynthesis ?

<b>Watch Video Solution</b>
<b>96.</b> Who formulated the photosynthesis equation?
Watch Video Solution
97. Why do we conduct Mohl's half leaf experiment in
our school lab ?
Watch Video Solution

98. What are the functions of Pseudo- podia in Amoeba



**101.** What is the name of those cells in the leaf of a plant which control the opening and closing of stomata ? Watch Video Solution 102. From which part of the body, undigested food is egested in Amoeba? Watch Video Solution

Creative Questions For New Model Paper 1 Mark Questions 1. What suggestions do you give to your friend

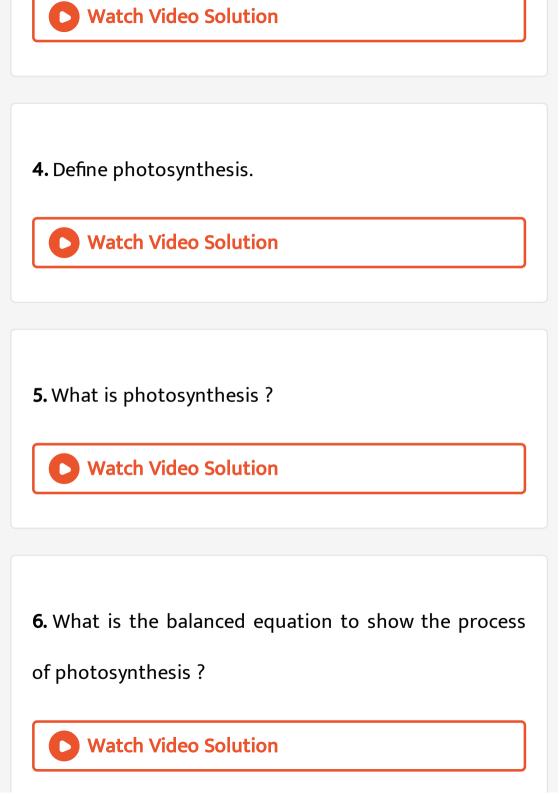
suffering from constipation ?

<b>O</b> Watch Video Solution	
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2. Give two examples for nutritional deficiency diseases.

Watch Video Solution

**3.** Your neighbour's children appear with swollen legs, hands and other body parts. They have dry skin and frequently suffering from Diarrhoea. What are the reasons for it ? What suggestions do you give to their parent ?



7. Bhumika told that "If there were no green plants, all

life on the earth would come to an • end" Comment.

## Watch Video Solution

**8.** Which disease occurs in child when there is an immediate second pregnancy or repeated child births in a mother ?



9. Prepare your own tabular column to get information

about food deficiency diseases from a doctor.



**11.** Why do we use KOH solution in Mohl's half-leaf experiment ?



12. What questions will you ask a doctor to know about

malnutrition ?



13. What is the vitamin, synthesized by bacteria present

in the intestine ?

Watch Video Solution

14. What is the digestive juice having no enzymes?



**15.** One student takes high calorie food. Another student takes less calorie food. But both are affected with diseases. Name the diseases by which they are affected.



16. Mention the two chemicals which you have used in

an experiment to test the presence of starch in the leaf.



17. Name the digestive juice without enzymes .





18. Doctors advise not to eat food items at the time of

fever. What are the reasons for this?

Watch Video Solution

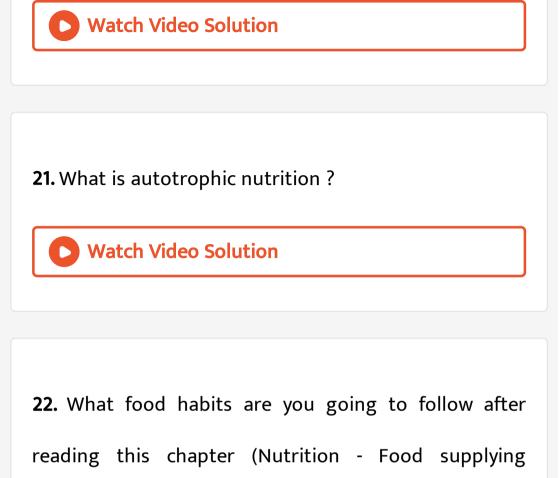
19. If we chew the grains like wheat, jowar, rice we feel

sweet. Why?



20. Which type of teeth do you use when you eat peas

and banana ?

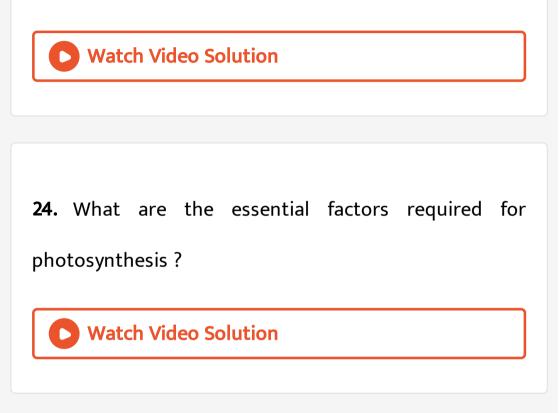


system)? Why?



23. What are the complex molecules produced by plants

from simple inorganic substances ?



25. What is the equation for photosynthesis proposed

by C.B. Van Neil in the year 1931?



26. How does our digestive system get rid off spoiled

food or poisoned food ?

Watch Video Solution

27. What chemical do we use to test the presence of

starch ?

Watch Video Solution

28. Why does raw bread ta, ste sweeter on mastication ?

**29.** Which wavelength of light is best absorbed by chlorophyll ?

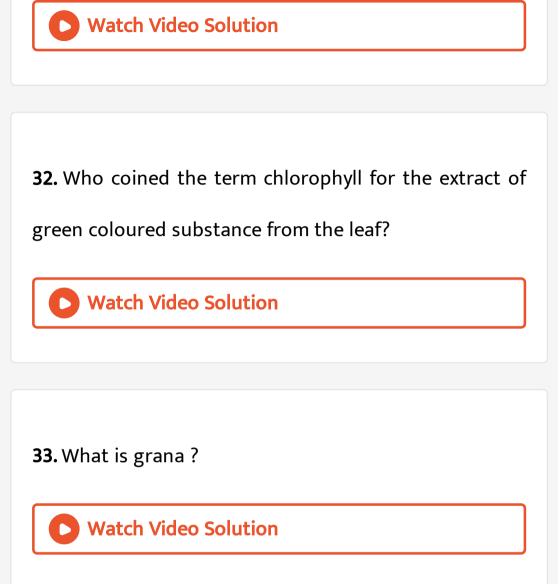
Watch Video Solution

**30.** What is the role of potassium hydroxide solution kept inside the glass bottle in the Mohl's half leaf experiment ?



31. Who found that gas bubbles liberated from hydrilla

plant contain the gas oxygen?



34. What is stroma?





Watch Video Solution 36. What are the two major phases found in photosynthesis? Watch Video Solution 37. Why the light reaction . phase is called

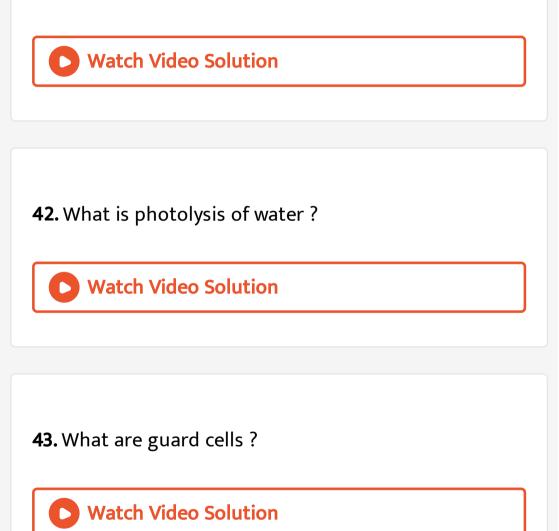
photochemical phase ?

**38.** Where does the light reaction takes place ?

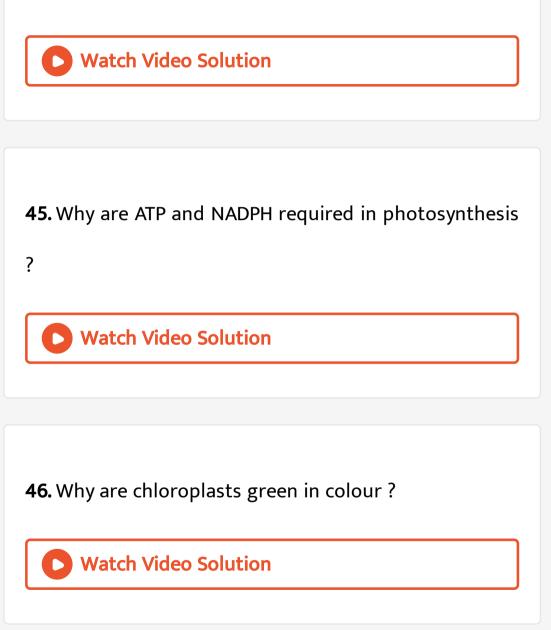
<b>Vatch Video Solution</b>
<b>39.</b> What are the end products of light reaction ?
<b>Vatch Video Solution</b>
<b>40.</b> How ,is glucose produced during dark reaction ?
Watch Video Solution

**41.** Write some of the events that occur in the

chloroplasts during photosynthesis.



**44.** How does  $CO_2$  enter into leaf?



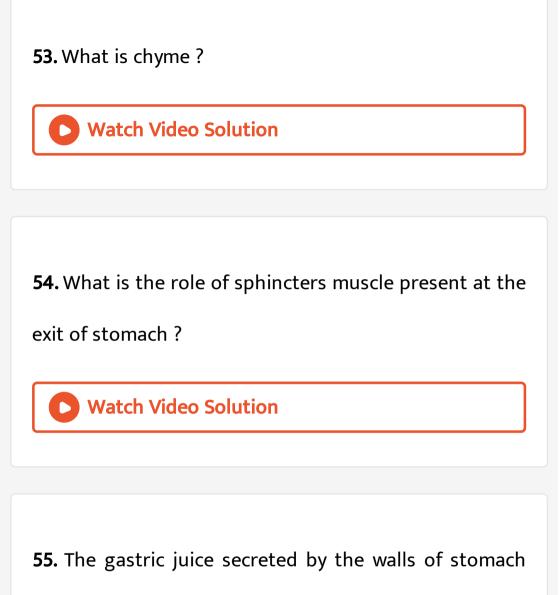
**47.** What are the examples for parasitic organisms?

<b>Watch Video Solution</b>
<b>48.</b> What is ingestion ?
<b>Vatch Video Solution</b>
<b>49.</b> Name the three pairs of salivary glands. What is the
enzyme secreted by them ?

50. What is the role of amylase jnidigestion of food ?

<b>Watch Video Solution</b>
51. What is digestion ?
Watch Video Solution
52. How does the food from oesophagus move into the

stomach?

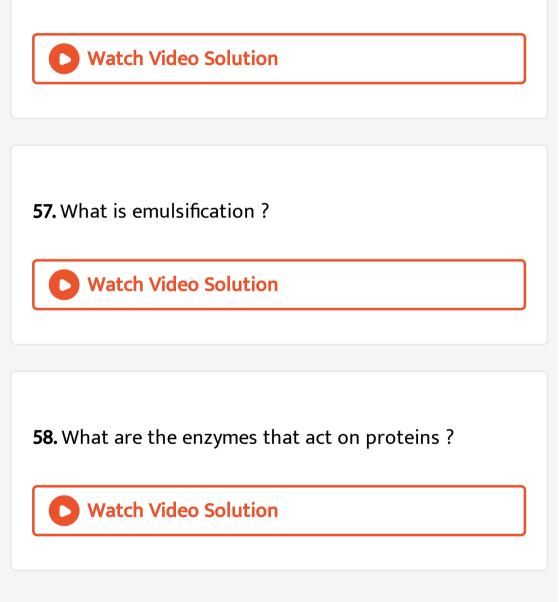


contains .....



56. What makes the internal condition of the intesttine

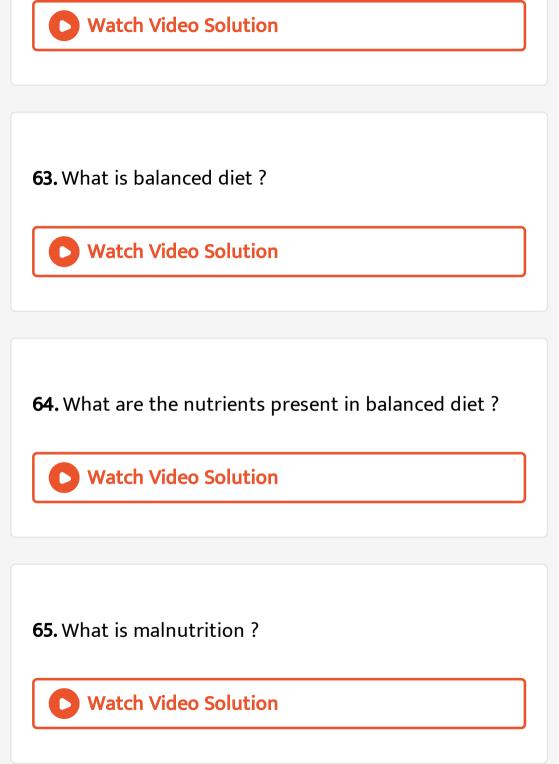
gradually to a basic or alkaline one ?



**59.** What is absorption ?

<b>Vatch Video Solution</b>
<b>60.</b> What is defecation ?
Watch Video Solution
<b>61.</b> What are roughages in the food ?
<b>Vatch Video Solution</b>

62. What are the parts of human digestive system ?

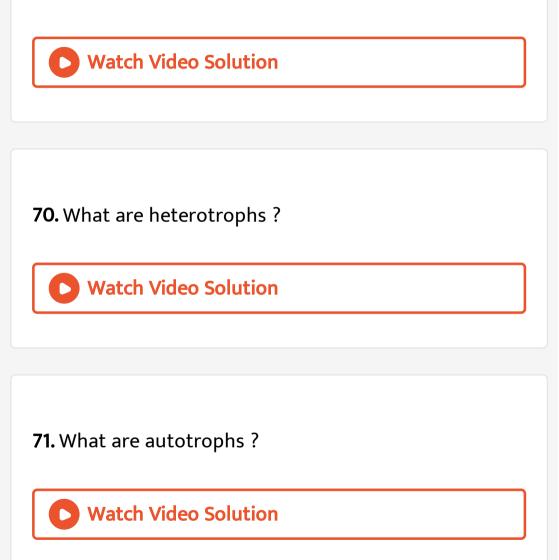


66. What are the two sources of vitamins to our body?

<b>Watch Video Solution</b>
<b>67.</b> Into how many groups are the vitamins classified ?
<b>Watch Video Solution</b>
<b>68.</b> Which vitamin deficiency causes sterility in males ?
<b>Watch Video Solution</b>

69. What is the chemical name of vitamin 'C' ? Deficiency

of vitamin 'C' causes which disease?



**72.** What was the opinion of C.B. Van Neil on the equation for photosynthesis ?

Watch Video Solution
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**73.** In plants gaseous exchange occurs through ?

**Watch Video Solution** 

**74.** From where do the aquatic plants get  $CO_2$  to manufacture food ?

**75.** What are the causes for vomiting ?

<b>Watch Video Solution</b>
<b>76.</b> Why do we feel bilious or liverish ?
<b>Watch Video Solution</b>
<b>77.</b> What are the symptoms of disease pellagra?
Watch Video Solution

78. Which vitamin deficiency causes Rickets ? What are

its symptoms ?



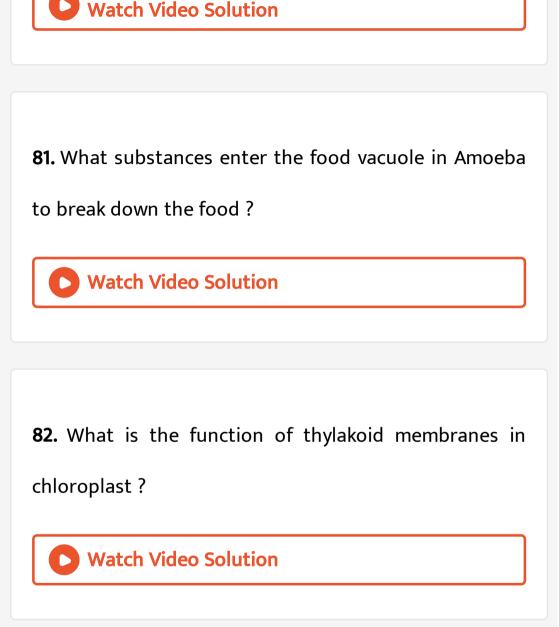
79. For proper vision which vitamin is required ? What is

its chemical name?

**Watch Video Solution** 

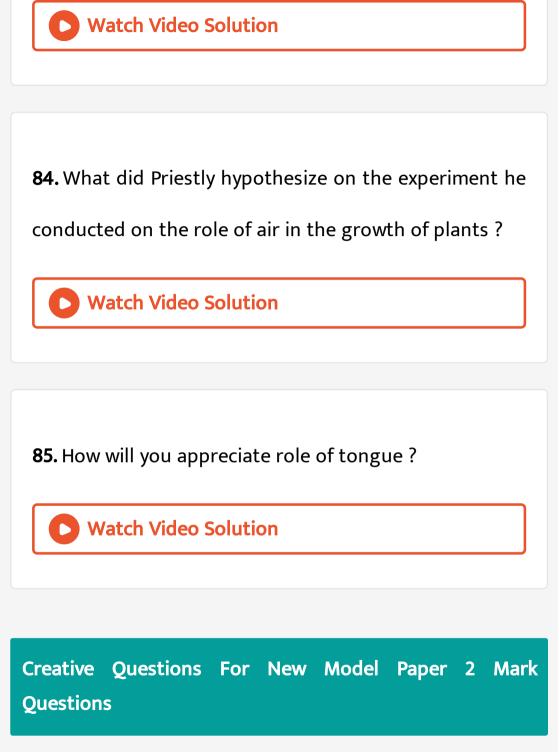
**80.** The leaves of a plant first prepare food A by photosynthesis. Food A then gets converted into food B. What are A and B?





83. Imagine what happens if saliva does not secrete into

mouth cavity.



1. Vitamin A, D, E and K are fat soluble vitamins. Write

the deficiency diseases and resources of these vitamins

in a tabular form.



**2.** Look at the following equation and answer the questions:

Fats + Bile  $\rightarrow$  Fat globules

a) What is the name of that reaction ?

b) Which gland plays major role in this reaction ?

3. Prepare four questions for the Gastro-enterologist to

know the problems that occur in-the digestive system.



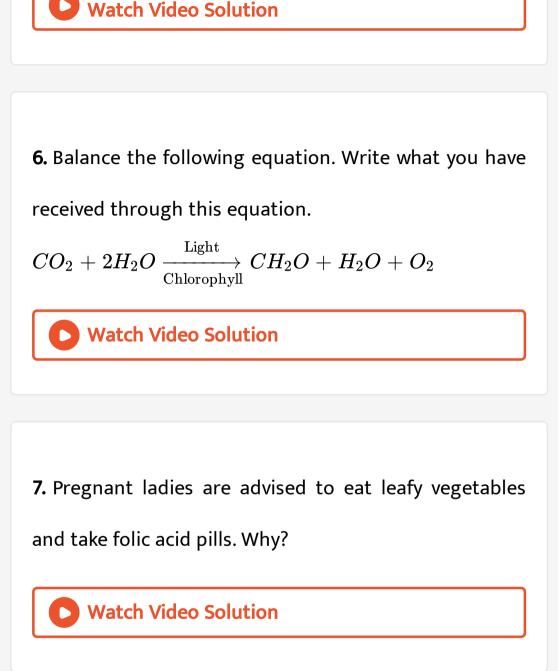
4. What questions do you ask your teacher to kriow

about the obesity and its consequences ?



**5.** A doctor visited your school to check up the health of school children. What kind of questions do you ask to know about the pancreas ?





8. You want to know about intestinal juice from your

nearby doctor. What questions do you ask him?



**9.** Photosynthesis process provides food for all organisms. It mainly takes place by two phases. Light reaction is first phase.

 $H_2O 
ightarrow H + OH$ 

What does the above equation shows iq light reaction?



**10.** Write names of the given sentences.

Organelle in which photosynthesis occurs.



**11.** Write names of the given sentences.

Life process in which complex food is converted into

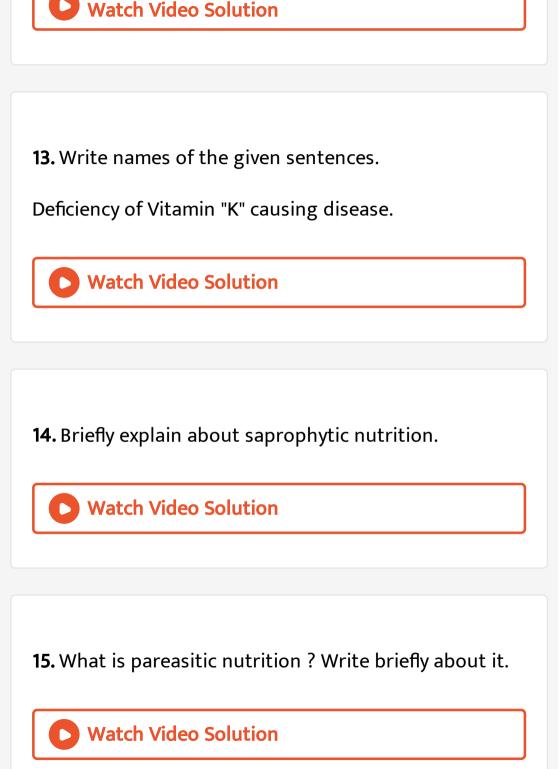
simple substances.

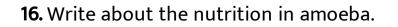
Watch Video Solution

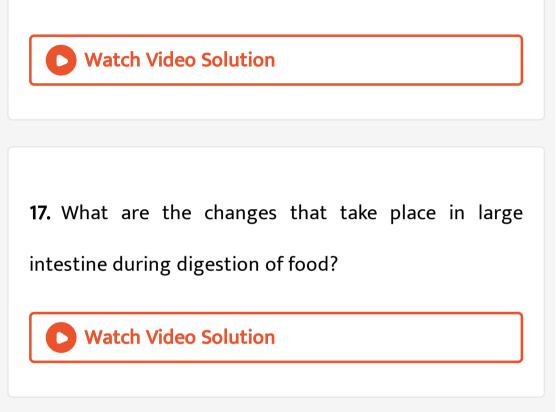
**12.** Write names of the given sentences.

The part after large intestine in digestive tract.





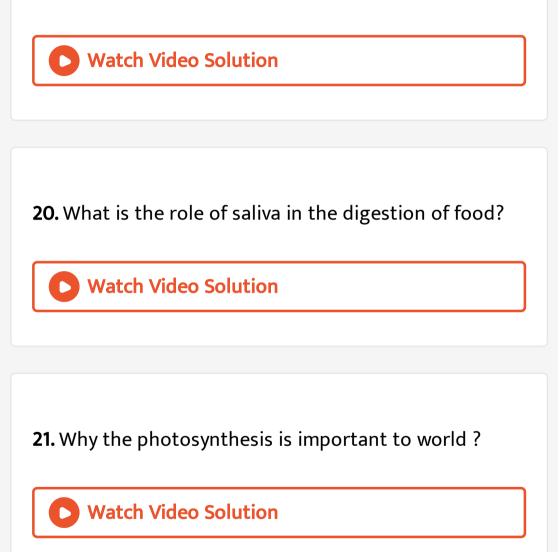




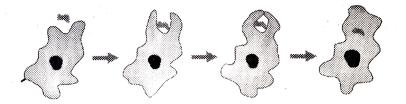
18. How can we avoid indigestion?

19. Why the bile juice is considered important even

though it does not contain any digestive enzymes ?

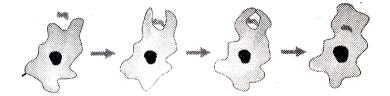


**22.** Observe the following figure and add a note on it.



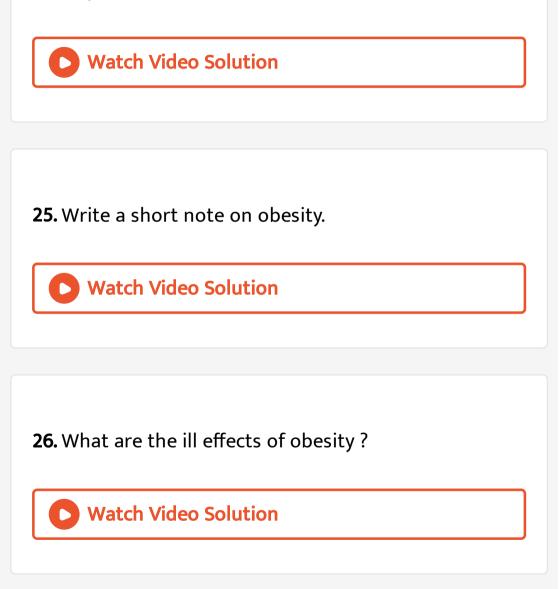
Watch Video Solution

## 23. Describe the process of nutrition in amoeba.



24. What precautions should a person suffering from

obesity take ?

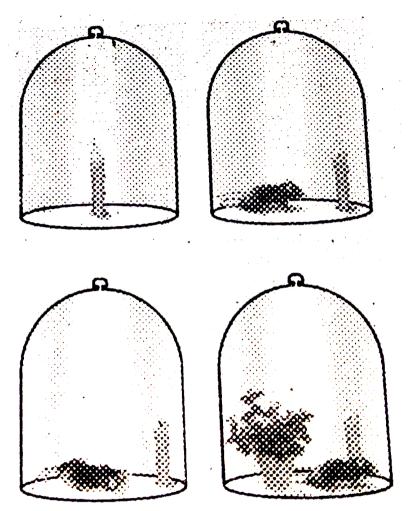


27. Plants are main source of food. Justify.

**Watch Video Solution** 

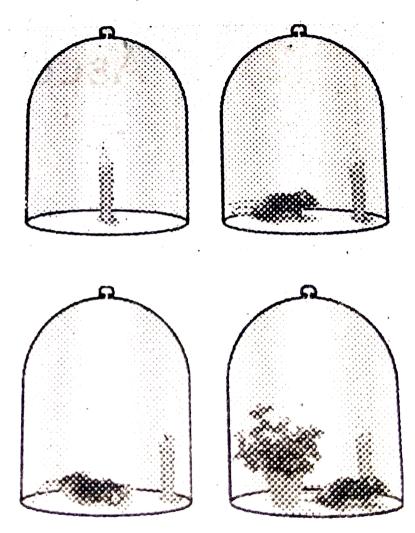
Creative Questions For New Model Paper 4 Mark Questions

## 1. Why did the candle extinguish ?



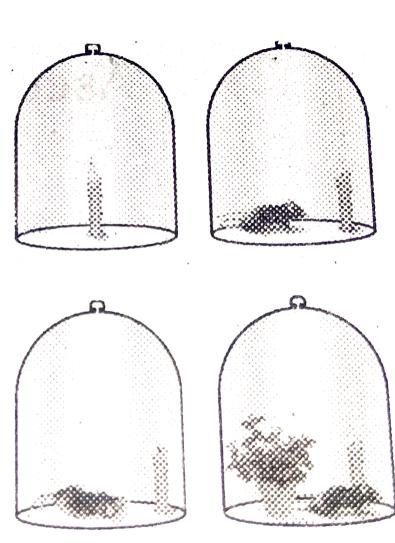
2. In this experiment, do you find any relationship

between mint plant and rat ? Discuss.



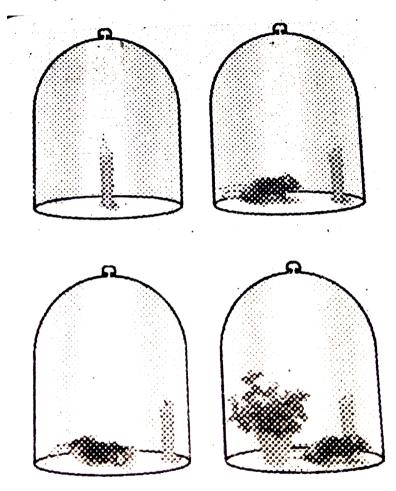
3. What were Priestly's observations in this experiment





4. Why is the candle continuously burning, when the

mint plant was kept inside the Bell jar?



5. You might have conducted and experiment in your school laboratory to prove that  $CO_2$  is essential for Photosynthesis. Raju, who is in 9th class, wanted to perform the same experiment. He had some doubts regarding this experiment. Clarify them.

Prior to the experiment, the potted plant was kept in a dark room for a week. Why?



Watch Video Solution

**6.** You might have conducted and experiment in your school laboratory to prove that  $CO_2$  is essential for Photosynthesis. Raju, who is in 9th class, wanted to perform the same experiment. He had some doubts

regarding this experiment. Clarify them.

KOH pellets were kept in the glass jar. Why?



7. You might have conducted and experiment in your school laboratory to prove that  $CO_2$  is essential for Photosynthesis. Raju, who is in 9th class, wanted to perform the same experiment. He had some doubts regarding this experiment. Clarify them.

Write the apparatus used to perform this experiment.



8. You might have conducted and experiment in your school laboratory to prove that  $CO_2$  is essential for Photosynthesis. Raju, who is in 9th class, wanted to perform the same experiment. He had some doubts regarding this experiment. Clarify them. What will be the result, if the same experiment is

conducted in dark?



SI No	Resources		Deficiency disease	Symptoms	
1)	Cyanoco - balamine	Synthesised by bacteria present in the intestine.	Pernicious anaemia	Lean and weak, less appetite.	
2) Ascorbic acid		Green leafy vegetables, citrus fruits, sprouts	Scurvy	Delay in healing of wounds, fractures of bones.	
3)	Retinol	Leafy vegetables, carrot,	Eye and	Night Blindness,	
		tomato, pumpkin, papaya,	skin	Xeropthalmia,	
		mango, meat, fish, egg, liver,	diseases	Cornea failure, Scaly	
		milk, Cod and Shark liver oil		skin.	
4)	Tocoferol	Fruits, vegetables, sprouts,	Fertility	Sterility in males,	
		sunflower oil	disorders	abortions in females	
5)	Phylloquinone	Green leafy vegetables.	Problems	Delay in blood	
		meat, egg and milk	related to	clotting, over	
			blood clotting	-	

#### Name the anti-sterility vitamin from the above table.

SI No	incounces		Deficiency disease	Symptoms	
1)	Cyanoco - balamine	Synthesised by bacteria present in the intestine.	Pernicious anaemia	Lean and weak, less appetite.	
2) Ascorbic acid		Green leafy vegetables, citrus fruits, sprouts	Scurvy	Delay in healing of wounds, fractures of bones.	
3)	Retinol	Leafy vegetables, carrot,	Eye and	Night Blindness,	
		tomato, pumpkin, papaya,	skin	Xeropthalmia,	
		mango, meat, fish, egg, liver,	diseases	Cornea failure, Scaly	
		milk, Cod and Shark liver oil		skin.	
4)	Tocoferol	Fruits, vegetables, sprouts,	Fertility	Sterility in males,	
		sunflower oil	disorders	abortions in females	
0	Phylloquinone	Green leafy vegetables.	Problems	Delay in blood	
	1	meat, egg and milk	related to	clotting, over	
			blood clotting	-	

## Which vitamin deficiency that causes the gums bleeding

#### ?

Sl. Vitamin No.		ACSOULCES		Symptoms	
1)	Cyanoco - balamine	Synthesised by bacteria present in the intestine.	Pernicious anaemia	Lean and weak, less appetite.	
2) Ascorbic acid		Green leafy vegetables, citrus fruits, sprouts	Scurvy	Delay in healing of wounds, fractures of bones.	
3)	Retinol	Leafy vegetables, carrot, tomato, pumpkin, papaya, mango, meat, fish, egg, liver, milk, Cod and Shark liver oil	Eye and skin diseases	Night Blindness, Xeropthalmia, Cornea failure, Scaly skin.	
4)	Tocoferol	Fruits, vegetables, sprouts, sunflower oil	Fertility disorders	Sterility in males, abortions in females	
)		Green leafy vegetables. meat, egg and milk	Problems related to blood clotting	Delay in blood clotting, over bleeding.	

#### Name the fat soluble vitamins from the above.

SI No	ACSOULCES		Deficiency disease	Symptoms	
1)	Cyanoco - balamine	egnenesised by bacteria	Pernicious anaemia	Lean and weak, less appetite.	
2) Ascorbic acid		Green leafy vegetables, citrus fruits, sprouts	Scurvy	Delay in healing of wounds, fractures of bones.	
3)	Retinol	Leafy vegetables, carrot,	Eye and	Night Blindness,	
		tomato, pumpkin, papaya,	skin	Xeropthalmia,	
		mango, meat, fish, egg, liver,	diseases	Cornea failure, Scaly	
		milk, Cod and Shark liver oil		skin.	
4)	Tocoferol	Fruits, vegetables, sprouts,	Fertility	Sterility in males,	
		sunflower oil	disorders	abortions in females	
5)	Phylloquinone	Green leafy vegetables.	Problems	Delay in blood	
		meat, egg and milk	related to	clotting, over	
			blood clotting		

Name the symptoms that appear due to deficiency of

#### vitamin K.



#### **13.** What will you prove by this experiment?

14. What apparatus do you use in this experiment ?

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<b>15.</b> What would be the results if the experiment is done in shadow ?
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<b>16.</b> What will you do to obtain result from the experiment?

## 17. Aamalyse the following information and answer the

#### question.

Vitamins	Resources	Deficiency symptoms
Thiamine	Cereals, oil seeds, vegetables, milk, meat, fish, eggs	Vomitings, fits, loss of appetite, difficulty in breathing, paralysis.
Ascorbic acid	Green leafy vegetables, citrus fruits, sprouts, carrot	Delay in healing of wounds, fractures of bones.
Retinol	Leafy vegetables, carrot, tomato, pumpkin, papaya, mango, meat, fish, egg, liver, milk, cod liver oil, Shark liver oil.	Night blindness, xeropthalmia, cornea failure, scaly skin.
Calciferol	Liver, egg, cod liver oil, Shark liver oil	Improper formation of bones, knock-knees, swollen wrists, delayed dentition, weak bones.
Tocoferol	Fruits, vegetables, sprouts, sunflower oil	Sterility in male, abortions in female.
Phylloquinone	Green leafy vegetables, milk, meat, eggs	Delay in blood clotting, over-bleeding.

Which vitamins deficiency causes diseases related to

bones ?



## 18. Aamalyse the following information and answer the

#### question.

Vitamins	Resources	Deficiency symptoms
Thiamine	Cereals, oil seeds, vegetables, milk, meat, fish, eggs	Vomitings, fits, loss of appetite, difficulty in breathing, paralysis.
Ascorbic acid	Green leafy vegetables, citrus fruits, sprouts, carrot	Delay in healing of wounds, fractures of bones.
Retinol	Leafy vegetables, carrot, tomato, pumpkin, papaya, mango, meat, fish, egg, liver, milk, cod liver oil, Shark liver oil.	Night blindness, xeropthalmia, cornea failure, scaly skin.
Calciferol	Liver, egg, cod liver oil, Shark liver oil	Improper formation of bones, knock-knees, swollen wrists, delayed dentition, weak bones.
Tocoferol	Fruits, vegetables, sprouts, sunflower oil	Sterility in male, abortions in female.
Phylloquinone	Green leafy vegetables, milk, meat, eggs	Delay in blood clotting, over-bleeding.

## Which vitamins we get by eating fruits ?



19. Aamalyse the following information and answer the

question.

Vitamins	Resources	Deficiency symptoms
Thiamine	Cereals, oil seeds, vegetables, milk, meat, fish, eggs	Vomitings, fits, loss of appetite, difficulty in breathing, paralysis.
Ascorbic acid	Green leafy vegetables, citrus fruits, sprouts, carrot	Delay in healing of wounds, fractures of bones.
Retinol	Leafy vegetables, carrot, tomato, pumpkin, papaya, mango, meat, fish, egg, liver, milk, cod liver oil, Shark liver oil.	Night blindness, xeropthalmia, cornea failure, scaly skin.
Calciferol	Liver, egg, cod liver oil, Shark liver oil	Improper formation of bones, knock-knees, swollen wrists, delayed dentition, weak bones
Tocoferol	Fruits, vegetables, sprouts, sunflower oil	Sterility in male, abortions in female.
Phylloquinone	Green leafy vegetables, milk, meat, eggs	Delay in blood clotting, over-bleeding.

Which vitamin deficiency causes Paralysis ? To prevent

it, what type of food we have to eat?

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**20.** Aamalyse the following information and answer the

question.

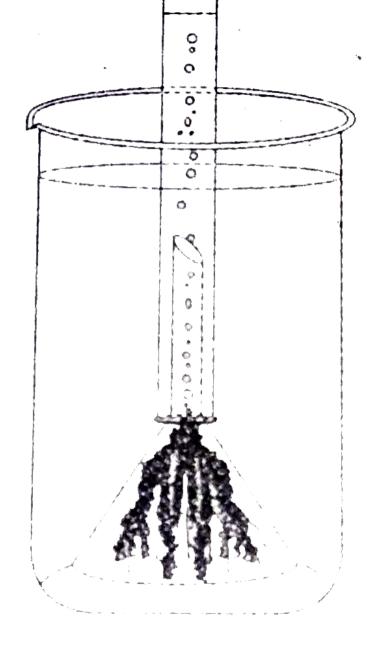
Vitamins	Resources	Deficiency symptoms
Thiamine	Cereals, oil seeds, vegetables, milk, meat, fish, eggs	Vomitings, fits, loss of appetite, difficulty in breathing, paralysis.
Ascorbic acid	Green leafy vegetables, citrus fruits, sprouts, carrot	Delay in healing of wounds, fractures of bones.
Retinol	Leafy vegetables, carrot, tomato, pumpkin, papaya, mango, meat, fish, egg, liver, milk, cod liver oil, Shark liver oil.	Night blindness, xeropthalmia, cornea failure, scaly skin.
Calciferol	Liver, egg, cod liver oil, Shark liver oil	Improper formation of bones, knock-knees, swollen wrists, delayed dentition, weak bones
Tocoferol	Fruits, vegetables, sprouts, sunflower oil	Sterility in male, abortions in female.
Phylloquinone	Green leafy vegetables, milk, meat, eggs	Delay in blood clotting, over-bleeding.

To avoid vitamin deficiency diseases, what : type of food

we have to eat ?

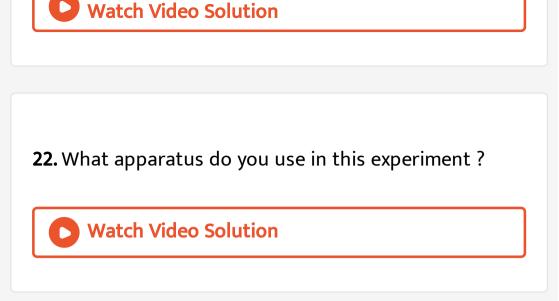
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**21.** Answer the following questions by observing the diagram showing the experiment.

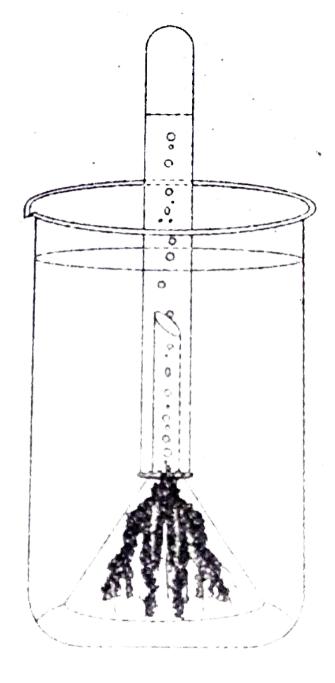


What will you prove by this experiment ?





**23.** Answer the following questions by observing the diagram showing the experiment.



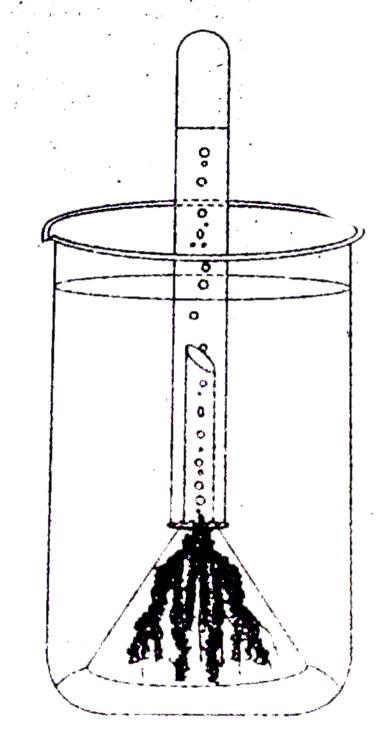
Why do we use KOH solution in this experiment ?





24. Answer the following questions by observing the

diagram showing the experiment.



Why did we study two leaves in this experiment ?



**25.** Describe an experiment conducted by Joseph Priestly which revealed the essential role of air in the growth of green plants.



26. What is the role of air in the growth of green plants

?

**27.** Describe an experiment conducted by Joseph Priestly which revealed the essential role of air in the growth of green plants.



**28.**  $B_1, B_2, B_3$ , A, C, D, E, Kare the symbols of vitamins.

Classify these vitamins based on solubility and diseases

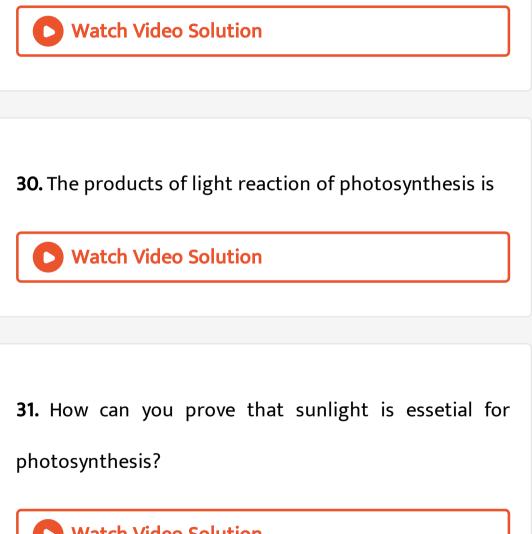
## due to vitamins deficiency.

S.No.	Water soluble	Disease due to deficiency	Fat soluble	Disease due to deficiency



29. During Photosynthesis, several events occurs in the

chloroplast. Explain the light dependent reactions.



**32.** Out of the following figures, choose the one showing the correct procedure for removing chlorophyll from the leaf in the experiment 'light is necessary for photosynthesis':





Leaf in boiling water (A)

Leaf in boiling alcohol (B)

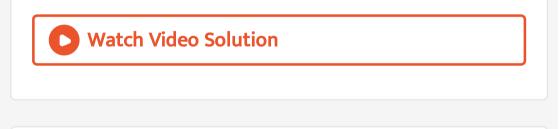


Leat in ethanol, heated in a water bath (C)



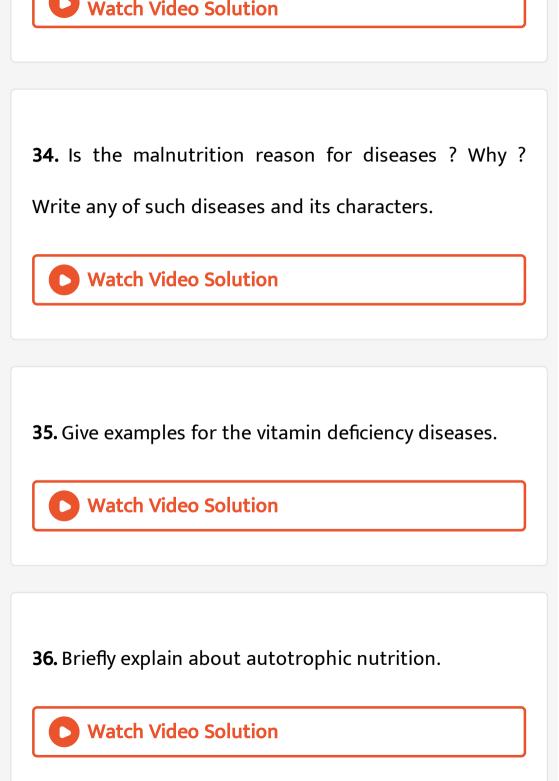
Leaf in water, heated in a water bath (D)

## The correct procedure is:

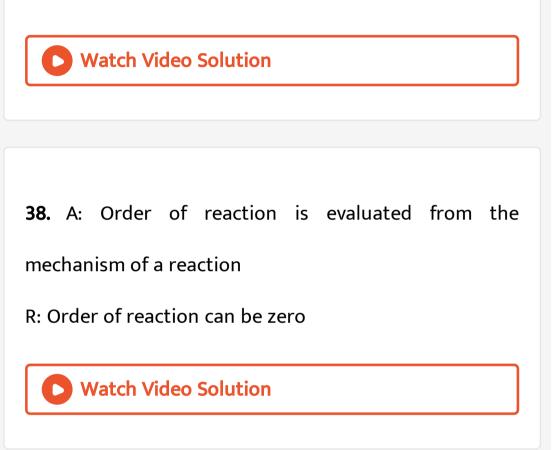


**33.** What are fat soluble vitamins ? Explain the deficiency diseases due to , deficiency of fat soluble vitamins and their symptoms.



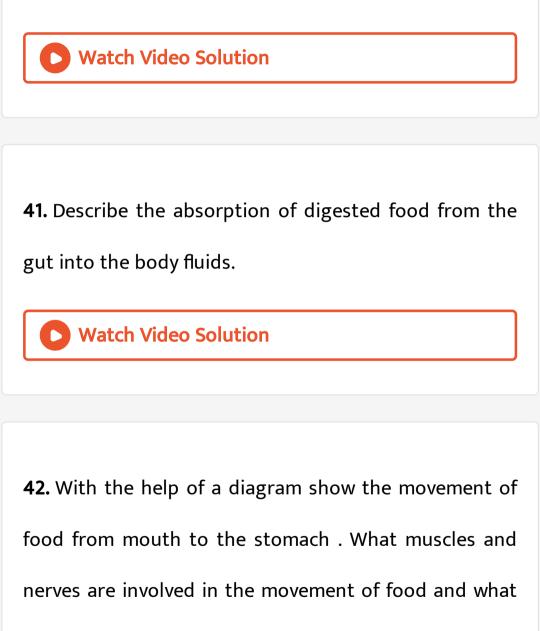


**37.** How do green plant get their food ?



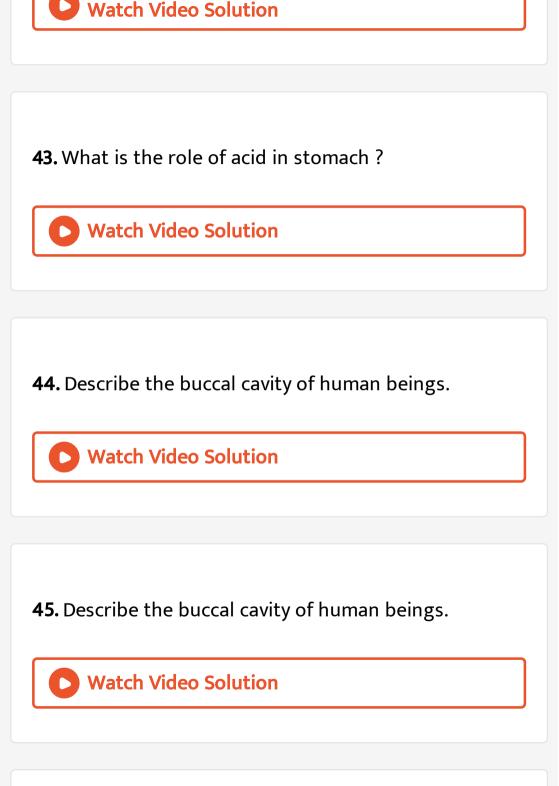
**39.** Write an account on carbon fixation.

40. For every calvin cycle



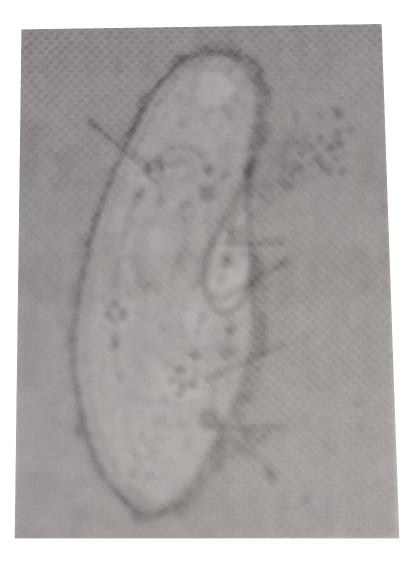
is this action called ?





**46.** Draw a flow chart of human digestive system.

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<b>47.</b> Write briefly about nutrition in paramoecium.
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48.

What

# is the life process going on in Paramoecium ?



49. Parasitic mode of nutrition is



**50.** Write about the digestion of food in the small intestine.



**51.** In small intestine how the carbohydrates, proteins and fats are digested ? Name different enzymes which help in digestion in small intestine.





**52.** Write a brief note on heterotrophic nutrition.

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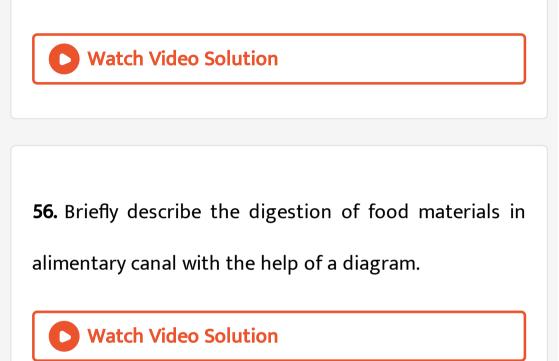
53. How do non-green plants and animals get their food

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?

54. The first event in photosynthesis is

55. The acid formed when  $CO_2$  is dissolved in water-



57. What happens to the food once it enters our body?

**58.** Differentiate between the nutrition process of plants and animals.



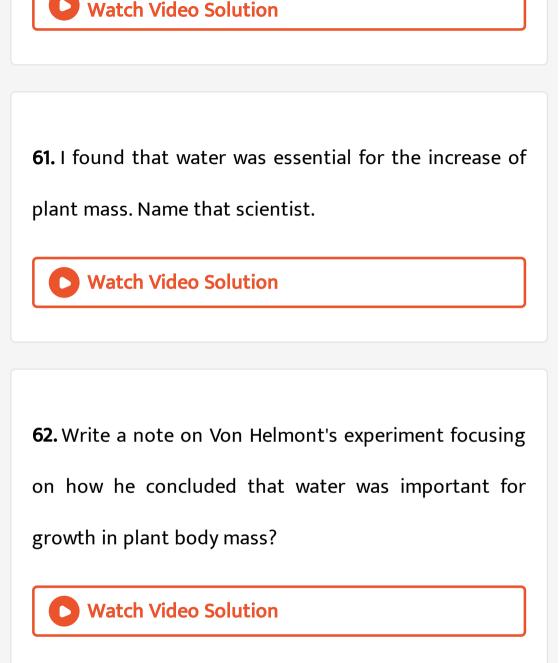
59. List out the organs/systems involved in the process

of digestion and explam bnefly their function.



**60.** If you have chance to meet any doctor (physician) or nutritionist, what questions will you ask about the health of alimentary canal ( digestive system) ?





**63.** Roots not only absorb fluid from soil, but returns a portion of their percullar secretions back into it. Who proved it from his experiments?

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64. Give an account of water soluble vitamins, their

occurrence, deficiency diseases and symptoms.

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65. Give an account of water soluble vitamins, their

occurrence, deficiency diseases and symptoms.



# **66.** Observe the information and answer the following questions.

S No.	Enzyme Substance	Secreted by	Secreted into	Digestive juice	Acts on	Products
1	Ptyalin (salivary amylase)	Salivary glands	Buccal cavity	Saliva	Carbohydrates	Maltose
2.	Pepsin	Stomach	Stomach	Gastric juice	Proteins	Peptones
3.	Bile (No enzymes)	Liver	Duodenum	Bile juice	Fats	Emulsification breaking down of large fats into small globules
4.	Amylase	Pancreas	Duodenum	Pancreatic juice	Carbohydrates	Maltose
5.	Trypsin	Pancreas	Duodenum	Pancreatic juice	Proteins	Peptones
6.	Lipase	Pancreas	Duodenum	Pancreatic juice	Fats	Fatty acids and glycerol

What are the enzymes that are helpful to digest

proteins?



67. Observe the information and answer the following

questions.

Some enzymes and juices of gut								
S No.	Enzyme Substance	Secreted by	Secreted into	Digestive juice	Acts on	Products		
1	Ptyalin (salivary amylase)	Salivary glands	Buccal cavity	Saliva	Carbohydrates	Maltose		
2.	Pepsin	Stomach	Stomach	Gastric juice	Proteins	Peptones		
3.	Bile (No enzymes)	Liver	Duodenum	Bile juice	Fats	Emulsification breaking down of large fats into small globules		
4.	Amviase	Pancreas	Duodenum	Pancreatic juice	Carbohydrates	Maltose		
5	Trypsin	Pancreas	Duodenum	Pancreatic juice	Proteins	Peptones		
6.	Lipase	Pancreas	Duodenum	Pancreatic juice	Fats	Fatty acids and glycerol		

## What are the enzymes that are helpful to digest

#### proteins?



## 68. Observe the information and answer the following

## questions.

		Some enzyr	rmes and juices of gut				
S.No.	Enzyme Substance	Secreted by	Secreted into	Digestive juice	Acts on	Products	
1	Ptyalin (salivary amylase)	Salivary glands	Buccal cavity	Saliva	Carbohydrates	Maltose	
2.	Pepsin	Stomach	Stomach	Gastric juice	Proteins	Peptones	
3.	Bile (No enzymes)	Liver	Duodenum	Bile juice	Fats	Emulsification breaking down of large fats into small globules	
4.	Amviase	Pancreas	Duodenum	Pancreatic juice	Carbohydrates	Maltose	
5.	Trypsin	Pancreas	Duodenum	Pancreatic juice	Proteins	Peptones	
6.	Lipase	Pancreas	Duodenum	Pancreatic juice	Fats	Fatty acids and glycerol	

At which place liver and pancreas secretes their

digestive juices ?

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#### 69. Observe the information and answer the following

#### questions.

Some enzymes and juices of gut								
S No.	Enzyme Substan	ce Secreted by	Secreted into	Digestive juice	Acts on	Products		
1	Ptyalin (salivary amylase)	Salivary glands	Buccal cavity	Saliva	Carbohydrates	Maltose		
2.	Pepsin	Stomach	Stomach	Gastric juice	Proteins	Peptones		
3.	Bile (No enzymes)	Liver	Duodenum	Bile juice	Fats	Emulsification breaking down of large fats into small globules		
4.	Amylase	Pancreas	Duodenum	Pancreatic juice	Carbohydrates	Maltose		
5.	Trypsin	Pancreas	Duodenum	Pancreatic juice	Proteins	Peptones		
6.	Lipase	Pancreas	Duodenum	Pancreatic juice	Fats	Fatty acids and glycerol		

Why carbohydrates are not digested in the stomach ?

## 70. Observe the information and answer the following

## questions.

Some enzymes and juices of gut								
S No	Enzyme Substance	Secreted by	Secreted into	Digestive juice	Acts on	Products		
1	Ptyalin (salivary amylase)	Salivary glands	Buccal cavity	Saliva	Carbohydrates	Maltose		
2.	Pepsin	Stomach	Stomach	Gastric juice	Proteins	Peptones		
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5	Trypsin	Pancreas	Duodenum	Pancreatic juice	Proteins	Peptones		
6.	Lipase	Pancreas	Duodenum	Pancreatic juice	Fats	Fatty acids and glycerol		

Where does carbohydrates & fats digestion starts in

#### our Alimentary canal?



**71.** Write the experimental procedure to prove that oxygen is produced during photo-synthesis in the presence of light.





72. Draw a neat labelled diagram of T.S. of leaf. What is

the function of st?mata?



**73.** Deekshith conduced an experiment to find the presence of starch in leaves. Draw a diagram for this experiment.



74. Which issues do you take into consideration to tell

that plants play a key role in animals nutrition?



**75.** We know that by taking different types of food materials we will get vitamins. For this what changes shall we take in our food habits?

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**76.** Describe what disaster occurs on earth, if photosynthesis life process stops.





77. What are vitamins ? Why they are called essential

nutrients ? What is their role in the human body ?