

## **BIOLOGY**

## **BOOKS - ICSE**

## **DIGESTIVE SYSTEM**

## **Topic 11 Mark Questions**

1. Pylorus is an opening from:

A. intestine into rectum

- B. oesophagus into stomach
- C. stomach into intestine
- D. mouth cavity into oesophagus

#### **Answer: C**



- 2. The gastric juice contains
  - A. amylopsin and pepsin
  - B. pepsin and trypsin

C. HCl and pepsin

D. trypsin and HCl

**Answer: C** 



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3. Name the following

The formula which represents the number and kind of teeth in man.



**4.** What is chyme?



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**5.** Why amylase is not able to function in the stomach?



**Watch Video Solution** 

**6.** Differentiate between the: Parotid gland and Sublingual gland on the basis of their

location. **Watch Video Solution Topic 1 2 Marks Questions** 1. Explain the Digestion **Watch Video Solution** 

**2.** Explain the Peristalsis



## 3. Name the following:

Mammalian teeth with different shapes.



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## 4. Name the following:

The expulsion of undigested remains of food from the alimentary canal.



**5.** Give the technical names for the following types of teeth in humans:

The two temporary grinding teeth.



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**6.** Give the technical names for the following types of teeth in humans:

The three last grinders.



**7.** Give the technical names for the following types of teeth in humans:

The broad sharp cutting teeth.



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**8.** Give the technical names for the following types of teeth in humans:

The pointed tooth for holding and tearing.



**9.** Mention reflexes which occur when a person Chews food



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**10.** Mention reflexes which occur when a person

Swallows food



**11.** How is through chewing of food helpful in digestion?



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## **Topic 13 Marks Questions**

1. Mention the exact location: Stomach



2. Mention the exact location: Tongue



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3. Mention the exact location: Fundus



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4. Given below are sets of five terms each.

Rewrite the terms in a logical sequence

beginning with the word that is underlined:

Rectum, Pharynx, oesophagus, Duodenum, Stomach



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**5.** Given below are sets of five terms each. Rewrite the terms in a logical sequence beginning with the word that is underlined: Colon, Buccal cavity, Pancreas, Pharynx,



Stomach

**6.** Given below are sets of five terms each.

Rewrite the terms in a logical sequence

beginning with the word that is underlined:

Oesophagus, <u>Pharynx</u>, Stomach, Large intestine, Small intestine



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7. Give an example for each of the following:

A gastric enzyme



**8.** Give an example for each of the following: Salivary gland



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**9.** Give an example for each of the following:

A salivary enzyme



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Topic 1 5 Marks Questions

**1.** Fill in the blanks : (1) ......  $\xrightarrow{\text{salivary amylase}}$  (2)



**2.** Fill in the blanks : (1) ......  $\xrightarrow{\text{Pepsin}}$  (2) ......



**3.** Fill in the blanks : (1) .......  $\stackrel{\mathrm{HCl}}{\longrightarrow}$  (2) ......



**4.** Fill in the blanks : (1).......  $\xrightarrow{\text{Amylopsin}}$  (2) ........



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**5.** Fill in the blanks : (1)......  $\xrightarrow{\text{Ptyalin}}$  (2) .......



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**6.** Study the diagram and answer the questions that follow:

Label the parts 1-4



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**7.** Study the diagram and answer the questions that follow:

Give the function of parts labelled 5 & 6.



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**8.** Study the diagram and answer the questions that follow:



Name the part exposed above the part labelled 3.



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**9.** Study the diagram and answer the questions that follow:

Name the hard substance covering the crown of the tooth.



**10.** Study the diagram and answer the questions that follow:

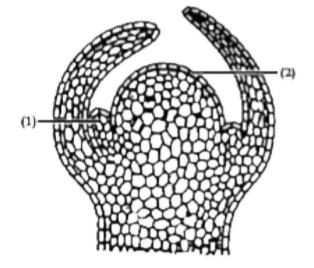


Name the bone-like structure that the root in position.



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**11.** Study the diagram given below and answer the questions that follow:

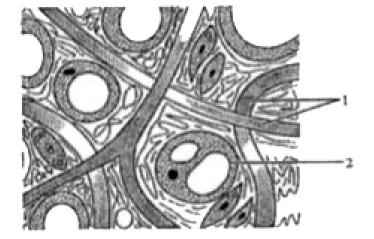


Identify the above structure and mention its location in a plant.



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12. Study the diagram and answer the questions that follow:



Label the parts numbered as 1 and 2.



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13. Study the diagram and answer the questions that follow:



Name the vestigial teeth found in this structure.



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14. Study the diagram and answer the questions that follow:

Write the dental formula of human.



**15.** Study the diagram and answer the questions that follow:

Draw a neat, labelled diagram of a human tooth



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**16.** Draw a neat and labelled diagram of a tooth.



- 17. Based on the diagram drawn above in (i), give a suitable term for each of the following descriptions:
- 1. Exposed portion of tooth above the gums.
- 2. Hardest substance that covers the crown of the tooth
- 3. It carries the nerve fibre, blood vessels, and sensory cells.
- 4.Hard substance around the root that holds tooth in the socket in the jaw.
- 5. The narrow portion of the gum line.
- 6. A type of tooth used for tearing and

piercing

7. Bicuspid tooth with one or two roots.



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**18.** Given below are different types of teeth, Study the same and answer the questions given below:

Name the teeth, labelled as A, B, C and D.



**19.** Given below are different types of teeth, Study the same and answer the questions given below:



State the different parts found in all these structures.



**20.** Given below are different types of teeth, Study the same and answer the questions

given below:



State the hardest structure found in these structures.



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**21.** Given below are different types of teeth, Study the same and answer the questions given below:

Explain the specific function of each of these structures.

**22.** The picture given below is a part of alimentary canal. Answer the questions that follows:

Identify the organ.



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**23.** The picture given below is a part of alimentary canal. Answer the questions that

follows:

Name the digestive juice secreted by it.



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**24.** The picture given below is a part of alimentary canal. Answer the questions that follows:

What is the significance of hydrochloric acid in the digestive juice?



**25.** The picture given below is a part of alimentary canal. Answer the questions that follows:

Mention the enzyme in the digestive juice.

What is its action on food?



## **Topic 2 1 Mark Questions**

**1.** The digestive juice which does not contain any enzyme:

B. Gastric juice
C. Bile
D. Pancreatic juice
Answer: C
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2. Enzymes present in pancreatic juice are:
A. Pepsin and Rennin

A. Saliva

- B. Maltase and Invertase
- C. Trypsin and Maltase
- D. Amylopsin and Trypsin

#### **Answer: D**



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**3.** The water from the digested food is mainly absorbed by:

A. Rectum

- B. Stomach
- C. Colon
- D. Duodenum

### **Answer: C**



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**4.** (A) ..... is the largest digestive gland in the human body and secretes (B).....



**5.** What happens if bile is not present in sufficient quantity in the body?



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6. Define Assimilation.



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**Topic 2 2 Mark Questions** 

1. Given below are sets of five terms each.

Rewrite the terms in a logical sequence beginning with the word that is underlined:

Caecum, Rectum, Colon, Jejenum, lleum



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2. Given below are sets of five terms each.

Rewrite the terms in a logical sequence beginning with the word that is underlined:

Ileum, Rectum, Anus, Caecum, Jejunum



3. Give an example for an intestinal enzyme



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4. Give an example for a digestive gland



**5.** Differentiate between the following pairs on the basis of what is given in the brackets:

Anabolism and Catabolism (Mechanism)



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**6.** Differentiate between the following pairs on the basis of what is given in the brackets:

Small intestine and Large intestine (Function)



7. Mention the constituent of food if the end result of the test shows:

Blue green to deep red with appearance of precipitate when added to Fehling solution.



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8. Mention the constituent of food if the end result of the test shows:

White to yellow and yellow to orange colour, after adding ammonium hydroxide.



**9.** Mention the constituent of food if the end result of the test shows :

Turning blue-black after adding iodine solution.



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**10.** Mention the constituent of food if the end result of the test shows :

Ash that does not burn after continued heating



**11.** There are finger like projection found in the inner lining of ileum. Give a suitable reason.



**12.** What is the function of rectum?



**13.** Mention two ways in which the ileum of a mammal is adapted for the absorption of digested food.



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# Topic 2 3 Marks Questions

**1.** Give appropriate biological / technical terms for the following:

An enzyme released in inactive form and activated by hydrochloric acid.



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**2.** Give appropriate biological / technical terms for the following:

An enzyme which digests fats in ileum.



**3.** Give appropriate biological / technical terms for the following:

An enzyme which digests protein in duodenum



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**4.** Choose the ODD one out from the following terms given and name the CATEGORY to which the others belong:

Stomach, Oesophagus, Trachea, Colon, Small intestine



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**5.** Choose the ODD one out from the following terms given and name the CATEGORY to which the others belong:

Protease, Lipase, Pectinase, Maltose, Amylase



**6.** Why is the small intestine the most important organ of the digestive system?



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7. Fill in the blanks

(1) ...... Enterokinase (2) ..........



8.	Fill	in	the	b	lan	ks

(1) ...... Sucrase (2) ...... + .......



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## 9. Fill in the blanks

(1) ....... Trypsin (2) .......



10. Fill in the blanks

(1) ...... Lactase (2) ...... + .....



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11. Fill in the blanks

(1) ...... Protease (2) ...... + ........



12. Fill in the blanks

(1) ...... Steapsin (2) ...... + ........



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# **Topic 2 5 Marks Questions**

1. Mention the exact location: Pancreas



2. Mention the exact location : Duodenum



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3. Mention the exact location: Caecum



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4. Mention the exact location: Anus



#### 5. Mention the exact location: Liver



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contains pancreatic (v) ...... Duodenum leads into a coiled tube called (vi) ...... (vii) ..... is the highly coiled part of intestine and opens into the (viii) ...... In jejunum and ileum, the partially digested food gets mixed with intestinal juice called (ix) ..... The inner lining of ileum has a number of finger like projections called (x) ....., which increases the surface area for absorption.



- **7.** (i)Draw a neat and labelled diagram of the alimentary canal.
- (ii)Based on the diagram drawn above in (i), give a suitable term for each of the following descriptions:
- 1. The storage organ for bile juice.
- 2. A large J-shaped elastic bag.
- 3. Part of alimentary canal where complete digestion of food takes place. Finger-like minute projection that increases the surface of the small intestine.
- 5. A long muscular tube that leads from the

pharynx till the stomach.

- 6. Part of both digestive and respiratory system.
- 7. A long region that divided into duodenum, jejunum, and ileum



**8.** Study the diagram given below and answer the questions that follow:

Name the structure shown and label its parts 1 and 2.



Name the enzymes present in part 1.



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**10.** Study the diagram given below and answer the questions that follow:



State the difference in functions of part labelled as, .2. and .3..



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11. Study the diagram given below and answer the questions that follow:

Name the digestive gland that is visible in this diagram.



State how part.4. helps in digestion.



- **13.** Given below is a diagram depicting a physiological process in mammals. Study the same and answer the following questions:

  (i)Name the process occurring in the diagram.
- (ii)Explain the process mentioned in part (i).

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**14.** Given below is a diagram depicting a physiological process in mammals.

Study the same and answer the following questions:

Label the part .X. and .Y..



**15.** Given below is a diagram depicting a physiological process in mammals.



Study the same and answer the following questions:

What would happen if this process occurs in the reverse direction ?



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**16.** Given below is a diagram depicting a physiological process in mammals.



Study the same and answer the following

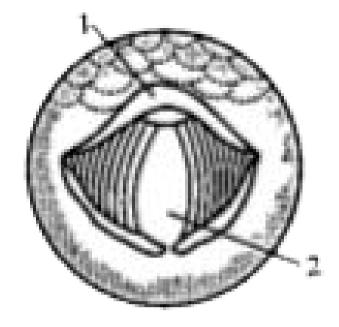
questions:

Define the part .Y..



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**17.** Study the diagram given below and answer the questions that follow:



Name the structure shown in the diagram.

State in which part of the body it is present.



How this structure is helpful in digestion?



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**19.** Study the diagram given below and answer the questions that follow:

Label the parts numbered as .1. and .2..



Name the lymph vessel present in part labelled as .1..



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**21.** Study the diagram given below and answer the questions that follow:

Name the enzymes present in intestinal juice.



Name the structure shown in the diagram. It is a part of which system of the human body?

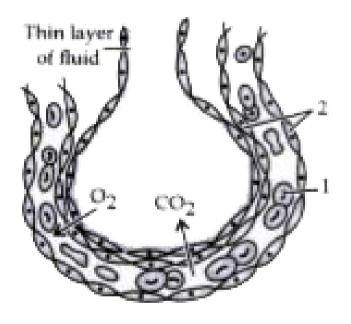


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**23.** Study the diagram given below and answer the questions that follow:

Write the basic function of this structure.





Label the parts numbered as 1 and 2.



Name the finger-like projections found in the inner wall of the ileum.



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**26.** Study the diagram given below and answer the questions that follow:

How is this structure helpful in digesting fat?



State its location in the small intestine. State in which part of small intestine, it is present.



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**28.** Study the diagram given below and answer the questions that follow:

How is this structure well adapted for absorption of digested food?



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**29.** Study the diagram given below and answer the questions that follow:

Label the parts numbered 1 and 2.



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**30.** Study the diagram given below and answer the questions that follow:

Name the lymph vessel present inside the structure.



Name the digestive juice secreted by the liver.

What are the two pigments present in it?



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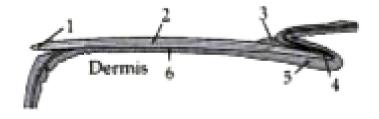
**32.** Study the diagram given below and answer the questions that follow:

Label the parts 1-4.



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**33.** Study the diagram and answer the questions that follow:



Explain the function of parts 5 and 6.



Name two enzymes secreted from the part labelled as .3..



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**35.** Study the diagram given below and answer the questions that follow:

Name the pigment that gives colour to the



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**36.** Study the diagram given below and answer the questions that follow:

What is emulsification?



**37.** Study the diagram given below and answer the questions that follow:

Label the parts 1-4.





Explain the function of part labelled as .1.?



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**39.** Study the diagram given below and answer the questions that follow:



How is intestinal juice secreted into the intestine?



**View Text Solution** 

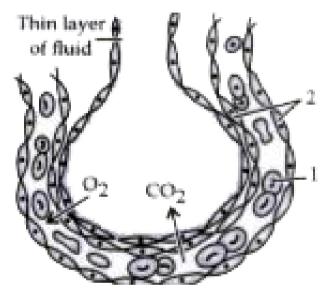
**40.** Study the diagram and answer the questions that follow:



How does nail grow?



**41.** Study the diagram given below and answer the questions that follow:



Name the fluid present inside the capillary.



- 1. Pylorus is an opening from
  - A. oesophagus into stomach
  - B. mouth cavity into oesophagus
  - C. stomach into intestine
  - D. intestine into rectum



- 2. Gastric juice contains
  - A. HCl and pepsin
  - B. pepsin and trypsin
  - C. trypsin and HCI
  - D. amylopsin and pepsin



<b>3.</b> The water	from	the	digested	food	is	mainly
absorbed by:						

- A. stomach
- B. duodenum
- C. colon
- D. rectum



**4.** Which one of the following pairs of types of teeth perform one common function as stated against it?

A. Incisors, canines Holding

B. Canines, premolars Tearing

C. Premolars, molars Grinding

D. Molars, incisors Tearing

#### **Answer:**



## **Review Questions Very Short Answer Type**

1. Give the dental formula of human beings.



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**2.** Mention two reflexes which occur when a person chews and swallows food.



- **3.** Consider the following two statements A & B and select the statements from (i)-(iv) that hold true.
- A. Small intestine is shorter than large intestine.
- B. Small intestine is wider than large intestine.
  - A. Both the statements are correct.
  - B. Both the statements are wrong,
  - C. Statement A is correct, B is wrong
  - D. Statement B is correct, A is wrong.



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## **Review Questions Short Answer Type**

**1.** What is digestion ? Why do only animals require a digestive system?



**2.** What are the end-products of the digestion of starch, proteins and fats respectively?



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3. Why is there no enzyme to digest vitamin?



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**4.** How is through chewing of food helpful in digestion?



5. What is the function of rectum?



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6. What is roughage? Give two examples.



**7.** Mention two ways in which the ileum of a mammal is adapted for the absorption of digested food.



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**8.** The stomach secretes gastric juice, which contains hydrochloric acid. What is its function?



## **Review Questions Long Answer Type**

**1.** Prepare a possible vegetarian menu for your dinner which would provide all the necessary nutrients.



**2.** What are the main characteristics of an enzyme?



**3.** Why is the small intestine the most important organ of the digestive system?



**4.** How is the liver an important organ in our body?



5. Define the following terms:

**Peristalsis** 



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**6.** Define the following terms:

**Omnivore** 



7. Define the following terms: **Pylorus Watch Video Solution** 8. Define the following terms: Kilocalorie **Watch Video Solution** 9. Define Assimilation.



**10.** List the enzymes and their action on food in the stomach and intestine



**11.** Give any four reasons why water is necessary in our body.



**12.** You have been supplied with a sample of food. How will you perform tests for the presence of starch and proteins in it?



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Review Questions Structured Application Skill
Type

1. Draw a neat and labelled diagram of a tooth.



2. Try to swallow the saliva in your mouth, and feel your neck with your hand. What happens in the neck?



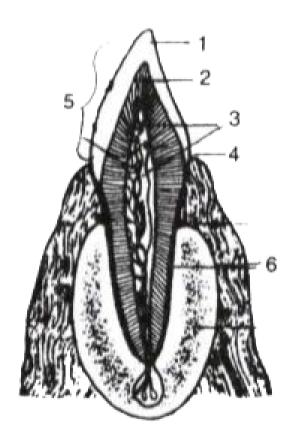
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**3.** Complete the following table by filling in the blanks 1 to 8

Organ	Enzyme	Food acted upon	Final product
1	Pepsin	2	3
Mouth	4	5	Disaccharide
6	7	Maltose	8

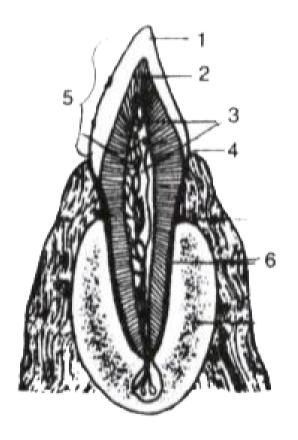


**4.** Study the diagram given below and then answer the questions that follow:



Name the parts labelled 1,2,3,4,5 and 6.

**5.** Study the diagram given below and then answer the questions that follow:

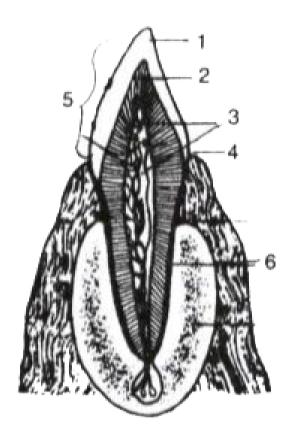


Identify the tooth and give a reason to support your answer.



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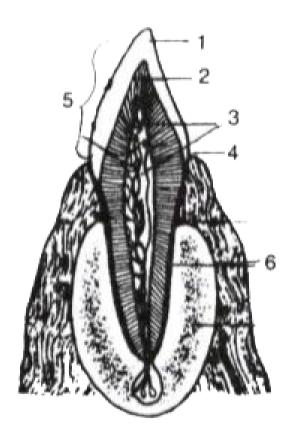
**6.** Study the diagram given below and then answer the questions that follow:



Describe the structure of the part labelled '3'.



**7.** Study the diagram given below and then answer the questions that follow:



Give the total number of the type of tooth

mentioned in '1' above in an adult and state its function.



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**8.** Study the following dental formula and then answer the questions that follow:

$$i\frac{3}{4} \quad c\frac{0}{0} \quad \text{pm}\frac{0}{1} \quad m\frac{1}{1}$$

What is the total number of teeth in the

(i) upper jaw and (ii) lower jaw?



**9.** Study the following dental formula and then answer the questions that follow:

$$i\frac{3}{4}$$
  $c\frac{0}{0}$   $pm\frac{0}{1}$   $m\frac{1}{1}$ 

State the total number of teeth present in the dentition.



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**10.** Study the following dental formula and then answer the questions that follow:

$$i\frac{3}{4}$$
  $c\frac{0}{0}$   $pm\frac{0}{1}$   $m\frac{1}{1}$ 

Give the dental formula of an adult human being,



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# **Review Questions Jumbled Spellings**

1. Write the correct word

A predator:

**GRIET .....** 



Deficiency of Folic acid (B) produces

MIAAAEN .....



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3. Write the correct word

A digestive enzyme

ENPISP .....



A part of tooth:

TEEDINN .....



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5. Write the correct word

Fatty acids are absorbed into:

TACLELAS .....



Maltase acts on:

LESOMAT .....



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7. Write the correct word

Excess amino acids are broken down in:

RIVEL .....



An enzmye which digests starch:

YEALMAS .....



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# **Progress Check**

**1.** Given below is a jumbled sequence of the different parts of the human alimentary canal Rewrite them in correct sequence.

Oesophagus, Large Intestine, Small Intestine, Pharynx.



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**2.** Give the technical names for the following types of teeth in humans :

The three last grinders.



**3.** Give the technical names for the following types of teeth in humans :

The pointed tooth for holding and tearing.



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**4.** Give the technical names for the following types of teeth in humans:

The broad sharp cutting teeth.



**5.** Give the technical names for the following types of teeth in humans :

The two temporary grinding teeth.



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6. Name the following parts of a tooth:

Part exposed above the gum.



7. Name the following parts of a tooth:

The hard substance making the covering of the tooth.



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8. Name the following parts of a tooth:

The soft connective tissue contained in the central space of the tooth.



9. Name the following parts of a tooth:

Bone-like structure fixing the root in position.



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10. Name the following parts of a tooth:

Slight constriction between the root and the crown.



Saliva moistens and lubricates food.



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**12.** Mention if the following statements are true (T) or false (F):

Saliva contains a protein-digesting enzyme.



Saliva tends to destroy germs in the mouth.



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**14.** Mention if the following statements are true (T) or false (F):

Peristalsis occurs through all regions of the gut.



The food in stomach stays for about 10 hours.



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**16.** Mention if the following statements are true (T) or false (F):

Gastric juice is alkaline.



Gastric juice contains pepsinogen.



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**18.** Name the three salivary glands.



19. Mention if the following statements are true (T) or false (F)

Intestinal villi have a lymph vessel called lacteal.



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**20.** Mention if the following statements are true (T) or false (F)

Intestine is narrow for fast movement of food.



Large intestine secretes no enzymes.



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22. Mention if the following statements are true (T) or false (F)

Bile neutralizes the acid content of the food received from the stomach.



Pancreatic juice has enzymes to digest all the major components of food.



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**24.** Mention if the following statements are true (T) or false (F)

The anus is surrounded by circular muscles.



25. Name the following:

The three subdivisions of the small intestine.



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26. Name the following:

The three subdivisions of the large intestine.



**27.** Name the enzyme which digests: starch in the mouth



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**28.** Name the enzyme which digests:

fats in the ileum



**Watch Video Solution** 

**29.** Give appropriate biological / technical terms for the following:

An enzyme which digests protein in duodenum



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30. Name the enzyme which digests: sucrose in the ileum



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**31.** What are the end-products of digestion of:

**Proteins** 



**32.** What are the end-products of digestion of:

**Fats** 



**33.** What are the end-products of digestion of:

Starch



34. What are the end-products of digestion of:

Sucrose



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35. Fill in the blanks.

Liver stores glucose as ........



**36.** Fill in the blanks.

Liver produces ..... only in embryo.



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37. Fill in the blanks.

Urea is produced in ..... by the deamination

of extra .....



38. Fill in the blanks.

For testing the action of saliva on starch, the material has to be kept at a temperature of about ...... $^{\circ}C$ .



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**39.** Mention the constituent of food if the end result of the test shows :

White to yellow and yellow to orange colour, after adding ammonium hydroxide.



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**40.** Mention the constituent of food if the end result of the test shows :

Turning blue-black after adding iodine solution.



**Watch Video Solution** 

**41.** Mention the constituent of food if the end result of the test shows:

Blue green to deep red with appearance of precipitate when added to Fehling solution.



**Watch Video Solution** 

**42.** Mention the constituent of food if the end result of the test shows :

Ash that does not burn after continued heating

