



# BIOLOGY

## NCERT - NCERT BIOLOGY(TELUGU)

### COORDINATION IN LIFE PROCESSES

#### Exercise

1. What do you mean by hunger pangs ?



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2. What are the organ systems involved in digestion of food which we eat ?



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3. Rafi said smell also increase our appetite.

Can you support this statement ? How?



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4. Write a note on peristalsis and sphincter function in stomach .



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5. Observe the given part of the digestive system . What is it ? What is its role during digestion ?



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## 6. Give reasons.

If we press tongue against the palate, we can recognise taste easily.



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## 7. Give reasons.

We can't identify taste when food is very hot.



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**8. Given reasons.**

If glucose level falls in blood, we feel hungry.



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**9. Why do you think small intestine is long and coiled ?**



**Watch Video Solution**

**10. Given reasons.**

Urination increases when we take a lot of fluids.



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**11. Given reasons.**

The process of digestion goes on in a person whose central nervous system has been largely affected.



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**12.** Write differences between the following :

Bolus - chime



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**13.** Write differences between the following :

Small intestine - Large intestine



**Watch Video Solution**

**14.** Write differences between the following :

Mastication - Rumination



**Watch Video Solution**

**15.** Write differences between the following :

Propulsion - Retropulsion



**Watch Video Solution**

**16.** How can you say that mouth is a munching machine ?



**Watch Video Solution**

**17.** What is mastication ? Explain the role of different sets of teeth in this process.



**Watch Video Solution**

**18.** During the journey of food from mouth to stomach through esophagus . How does muscular system coordinate in this process ?



**Watch Video Solution**

**19.** Is there any reason for the intestine to be coiled with many folds. In what way it is helpful during the process of digestion ?



**Watch Video Solution**

**20.** What is the function of peristalsis in these parts of Human digestive system ?

Small intestine



**Watch Video Solution**

**21.** What is the function of peristalsis in these parts of Human digestive system ?

Small intestine



**Watch Video Solution**

**22.** What is the function of peristalsis in these parts of Human digestive system ?

Small intestine



**Watch Video Solution**

**23.** what is the function of peristalsis in these parts ?

Large intestine



**Watch Video Solution**

**24.** How can you justify the enteric nervous system as the second brain of the gut ?



**Watch Video Solution**

**25.** Rajesh feels hungry upon seeing food. Sheela says no to food as she is not hungry. What makes Rajesh hungry and what suppresses Sheela's hunger ?



**Watch Video Solution**

**26.** How are taste and smell related ?



**Watch Video Solution**

**27.** List out the sphincter muscles of the food canal you have observed and give a brief description ?



**Watch Video Solution**

**28.** What happens if salivary ducts are closed ?





**Watch Video Solution**

**29.** If the size and shape of small intestine is like esophagus what will happen ?



**Watch Video Solution**

**30.** Prepare a questionnaire to understand nervous coordination in digestion process.



**Watch Video Solution**

**31.** What experiment do you perform to understand action of saliva on flour ? Explain its procedure and apparatus that you followed .



**Watch Video Solution**

**32.** Suggest a simple experiment to prove the role of palate in recognizing taste.



**Watch Video Solution**

**33.** Collect information related to feeling and hunger from your school library and prepare a note on it .



**Watch Video Solution**

**34.** Draw the block diagram showing sensation of taste from food material to brain.



**Watch Video Solution**

**35.** Draw a neatly labeled diagram showing a peristaltic movement in esophagus Explain the importance of mucus on the walls of food pipe.



**Watch Video Solution**

**36.** What is the role of mucus in the food pipe ?



**Watch Video Solution**

**37.** Draw a schematic diagram of villus in small intestine. Explain how digestive system coordinate with circulatory system.



**Watch Video Solution**

**38.** The mere smell or sight of food stimulates hunger. Describe the process in a flow chart.



**Watch Video Solution**

**39.** With the help of a diagram show the movement of food from mouth to the stomach . What muscles and nerves are involved in the movement of food and what is this action called ?



**Watch Video Solution**

**40.** Prepare a cartoon on Pavlov's experiment with a suitable caption.



**Watch Video Solution**

**41.** How do you appreciate stomach as a churning machine . How does this coordination go on ?



**Watch Video Solution**

**42.** There is great variety in diversified life processes, express your feeling in the form of poem.



**Watch Video Solution**

**43.** Suggest any two important habitual actions to your friend while eating food , keeping in view of this chapter.



**Watch Video Solution**

**44.** Write down the parts of the gut where the journey of food starts from mouth to anus.



**Watch Video Solution**

**45.** Which type of life processes would be involved in the breakdown of food in the stomach ?



**Watch Video Solution**

**46.** If any of life processes fail to function, what affect would it have on our body ?



**Watch Video Solution**

**47.** How do we know that we need food ?



**Watch Video Solution**

**48.** What plays a major role to identify stale food ?



**Watch Video Solution**

**49.** If you are having a tasty dish do you think the smell of it increases your appetite ?



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50. What are your observations in combustion of sugar activity ?



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***Observation of how our taste is affected by the sense of smell.***

**4 Marks**

- 1) First close your nose with your fingers.
- 2) Pop in some zeera in your mouth and chew it for sometime.
- 3) After that chew sound.
- 4) Could you recognise the taste ?
- 5) How long it taken to know the taste ?
- 6) After sometime wash your mouth and repeat the activity by chewing a piece of an apple followed by a potato (remember to close your nose)

51.

Could you feel the taste of both or did they taste the same ? Why?



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**52.** When does tooth decay start in our mouth ?



**Watch Video Solution**

**53.** What is the role of different parts of the mouth in helping us to taste keeping sugar crystals over the tongue?



**Watch Video Solution**

**54.** Are there any other sensation that affect taste ?



**Watch Video Solution**

**55.** What happens to your taste sensation while sipping hot milk or tea ?



**Watch Video Solution**

**56.** What do you think could be the range of range of temperature for us to relish food items ?



**Watch Video Solution**

**57.** What do you think that would happen if the salivary glands did not function in our mouth ?



**Watch Video Solution**

**58.** Suppose your taste buds were affected what would happen to your interest in having food ?



**Watch Video Solution**

**59.** Does the level of saliva secretion change due to presence of food in the mouth ?



**Watch Video Solution**

**60.** Can the process of chewing go on in the absence of saliva ?



**Watch Video Solution**

**61.** Does the saliva have any other roles to play ?



**Watch Video Solution**

**62.** What is the use of such an increase in surface area of food ?



**Watch Video Solution**

**63.** What about the nature of medium for salivary amylase to act on food component ?



**Watch Video Solution**

**64.** If we swallow food material directly without mastication what will happen ?



**Watch Video Solution**

**65.** Do you think the pH of our mouth changes ?



**Watch Video Solution**

**66.** What are different systems that contribute to the proper functioning of digestion in the mouth ?



**Watch Video Solution**

**67.** After the digestive process in the mouth where does the food move to ?



**Watch Video Solution**

**68.** What are the systems that come into play for swallowing food ?



**Watch Video Solution**

**69.** What does the schematic diagram tell us about the esophagus ?



**Watch Video Solution**

**70.** What kind of the tube is esophagus ?



**Watch Video Solution**

**71.** How does mucus help in passage of food ?



**Watch Video Solution**

**72.** What makes the movement of the food bolus in the esophagus easy ?



**Watch Video Solution**

**73.** Why do you think the stomach is structured like a bag rather than a tube like esophagus ?



**Watch Video Solution**

**74.** What sets such processes into action ?



**Watch Video Solution**

**75.** What stimulates stomach muscle into action ?



**Watch Video Solution**

**76.** What causes the stomach to churn and mix the food ?



**Watch Video Solution**

**77.** Why should only a small quantity of food be passed from stomach to duodenum ?



**Watch Video Solution**

**78.** What is involved in bringing of about peristalsis?



**Watch Video Solution**

**79.** What is the direction of peristalsis ( which end of the gut does it begin) ?



**Watch Video Solution**

**80.** What happens if the direction of peristalsis is not reversed in animal like cow ?



**Watch Video Solution**

**81.** Why do you think small intestine is long and coiled ?



**Watch Video Solution**

**82.** What process is involved in this process of absorption ?



**Watch Video Solution**

**83.** Often you may have experienced that if you have tension for some reason you start having loose motions . What does this show us ?



**Watch Video Solution**

**84.** What moves out of the gut ?



**Watch Video Solution**

**85.** Two major pathways of waste expulsion are shown above. Which of the two do you think happens exclusively through the gut ?



**Watch Video Solution**

**86.** What controls the exit of stools from the body ?



**Watch Video Solution**

**87.** Do you think the control is voluntary ? Why /Why not ?



**Watch Video Solution**

**88.** Did we have a sphincter in any other part of the digestive canal ? Where was it ?



**Watch Video Solution**

**89.** What is the fate of the digested substances that move into blood from the intestine ?



**Watch Video Solution**

**90.** Energy is stored in



**Watch Video Solution**

**91.** Which system do you think will remove the excess salts from our body?



**Watch Video Solution**

**92.** What would be the path of salt removal from gut to the outside of our body ?



**Watch Video Solution**

**93.** Complete the blanks.

We can recognise the taste of food by pressing the tongue against.....(1) ,.....

(2) recognize the taste , present on the tongue.



**Watch Video Solution**

**94.** When do we identify the taste easily ?



**Watch Video Solution**

**95.** Does garlic have a stronger scent than apple? How do you think the stronger scent affect your sensation of taste?



**Watch Video Solution**

**96.** How many food materials you have identified correctly?



**Watch Video Solution**

**97.** write a few lines on relation between smell and taste



**Watch Video Solution**

**98.** How you ever felt that a particular food is tasty just by looking at it?



**Watch Video Solution**

**99.** What is the role of different parts of the mouth in helping us to taste keeping sugar crystals over the tongue?



**Watch Video Solution**

**100.** can we taste on dry tongue?



**Watch Video Solution**

**101.** Tongue is a taste receptor . Which nerve helps to identify the taste?



**Watch Video Solution**

**102.** How do you show the breakdown of food by using the model of chalkpiece kept in vinegar?



**Watch Video Solution**

**103.** Write the number of different sets of teeth.



**Watch Video Solution**

**104.** Name the chemical which is used to test the action of saliva on flour (ate).



**Watch Video Solution**

**105.** Do you think the pH of our mouth changes ?



**Watch Video Solution**

**106.** What is the chemical medium present in mouth ?



**Watch Video Solution**

**107.** Did you observe any change in pH after eating? What may have caused the change ?



**Watch Video Solution**

**108.** Optimum pH for the action of salivary amylase is



**Watch Video Solution**

**109.** Does even the type of food have any role to play on the pH of our mouth?



**Watch Video Solution**

**110.** Write a procedure to make a model of oesophagus to observe how bolus moves forward.



**Watch Video Solution**

**111.** What is the role of acid in stomach ?



**Watch Video Solution**

**112.** Paper tube and folded papers.



**Watch Video Solution**

**113.** Compare the area of the folder papers with that of the roll. Do you find any increase in the area ? If so try to find out the reasons ?



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**114.** What systems do you think are working together ?



[Watch Video Solution](#)

**115.** Do you think those systems work together in the whole length of the digestive canal ?  
Why /Why not ?



[Watch Video Solution](#)

**116.** When do we feel hunger pangs fall in stomach ?



**Watch Video Solution**

**117.** Name the hormone that is responsible for hunger pangs in stomach.



**Watch Video Solution**

**118.** Complete the blanks.

.....(1) in forebrain and .....(2) cranial nerve plays an important role in carrying the hunger signals to the brain.



**Watch Video Solution**

**119.** Increase in ghrelin levels results in ?



**Watch Video Solution**

**120.** Name the hormone that suppresses hunger pangs.



**Watch Video Solution**

**121.** The interaction between which senses increases our perception of the food we eat ?



**Watch Video Solution**

**122.** Dental formula in human beings is



**Watch Video Solution**

**123.** Write the number of different sets of teeth.



**Watch Video Solution**

**124.** What is mastication ? Explain the role of different sets of teeth in this process.



**Watch Video Solution**

**125.** Which cranial nerve control the movement of muscles in the jaw ?



**Watch Video Solution**

**126.** What is the function of salivary amylase ?



**Watch Video Solution**

**127.** What is the nature of oesophagus



**Watch Video Solution**

**128.** How does mucus help in passage of food ?



**Watch Video Solution**

**129.** What are the two kinds of muscles present in esophagus ?



**Watch Video Solution**

**130.** What is peristalsis ?





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**131.** What is chyme ?



[Watch Video Solution](#)

**132.** What stimulates stomach muscle into action ?



[Watch Video Solution](#)

**133.** What causes the stomach to churn and mix the food ?



**Watch Video Solution**

**134.** Read the following passag:

As the process of digestion in the stomach nears completion, the contraction of the stomach decrease. This prompts the muscles called as pyloric shincter opening of the stomach and the first part of the small

intestine or duodenum to relax. This opens the pathway into duodenum releasing the partially digested food (chyme) in small quantities into the duodenum. Peristalsis involves the contraction of the muscle behind the food and the relaxation of the muscles in front of the food and the relaxation of the muscles in front of the food giving rise to a thrust that pushes the food forward through the digestive canal. A wave of contraction followed by relaxation in muscles help in forward movement of food.

What is the use of duodenum ?



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**135.** Why should only a small quantity of food be passed from stomach to duodenum ?



**Watch Video Solution**

**136.** What is involved in bringing about peristalsis?



**Watch Video Solution**

**137.** What is the direction of peristalsis ( which end of the gut does it begin) ?



**Watch Video Solution**

**138.** What happens if the direction of present is reversed ?



**Watch Video Solution**

**139.** What is the nature of the chyme ?





**Watch Video Solution**

**140.** Acidic nature of chyme initiates the production of which hormones ?



**Watch Video Solution**

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



**Watch Video Solution**

**142.** Why do you think small intestine is long and coiled ?



**Watch Video Solution**

**143.** What is second brain ?



**Watch Video Solution**

**144.** What is the other name for "second brain" ?



**Watch Video Solution**

**145.** What controls the exit of stools from the body ?



**Watch Video Solution**

**146.** What happens during inhalation ?



**Watch Video Solution**

**147.** What happens during exhalation ?



**Watch Video Solution**

**148.** Which system do you think will remove the excess salts from our body?



**Watch Video Solution**

**149.** Energy is stored in



**Watch Video Solution**

**150.** How do we know that we need food ?



**Watch Video Solution**

**151.** What do you think could be the range of range of temperature for us to relish food items ?



**Watch Video Solution**

**152.** Ritwik felt hunger pangs but could not take his meal on time . After sometime the hunger pangs disappeared and he felt relieved . State the reasons.



**Watch Video Solution**

**153.** What are the systems involved in the process of digestion ?



**Watch Video Solution**

**154.** What are the functions of tongue?



**Watch Video Solution**

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



**Watch Video Solution**

**156.** Complete the blanks.

We can recognise the taste of food by

pressing the tongue against.....(1) ,.....

(2) recognize the taste , present on the tongue.



**Watch Video Solution**

**157.** Name the hormone that is responsible for hunger pangs in stomach.



**Watch Video Solution**

**158.** What are the muscles that helps in the perisatalsis?



**Watch Video Solution**

**159.** What is meant by "grinding" ?



**Watch Video Solution**

**160.** What is meant by "Retropulsion" ?



**Watch Video Solution**

**161.** Complete the blanks.

The wall of stomach secrete .....(1) acid. The wall of stomach is protected from it's own acids with the help of .....(2)



**Watch Video Solution**

**162.** What is the main function of villi ?



**Watch Video Solution**

**163.** What is anal sphincter ?



**Watch Video Solution**

**164.** What is meant by "stool" ?



**Watch Video Solution**

**165.** What are four systems involved in the process of generating hunger sensation ?



**Watch Video Solution**

**166.** write the names of different taste buds.



**Watch Video Solution**

**167.** Suppose your taste buds were affected what would happen to your interest in having food ?



**Watch Video Solution**

**168.** Given reasons:

In severe cold and cough, one cannot feel the taste of the food.



**Watch Video Solution**

**169.** Why do we salivate during a nap of day time ?



**Watch Video Solution**

**170.** Describe the process of digestion in digestive system.



**Watch Video Solution**

**171.** Why do you think the stomach is structured like a bag rather than a tube like esophagus ?



**Watch Video Solution**

**172.** Complete the blanks.

We can recognise the taste of food by pressing the tongue against.....(1) ,.....

(2) recognize the taste , present on the tongue.



**Watch Video Solution**

**173.** Write a short note on digestion of food in mouth .



**Watch Video Solution**

**174.** Explain the process of exit of waste materials from large intestine .



**Watch Video Solution**

**175.** How do we detect the smell of agarbathi ?



**Watch Video Solution**

**176.** Tooth enamel is one of the hardest substances in our body. How does it undergo damage due to eating chocolates and sweets ?



**Watch Video Solution**

**177.** What do you think that would happen if the salivary glands did not function in our mouth ?



**Watch Video Solution**

**178.** If anybody chew food for more time the following is likely to occur.



**Watch Video Solution**

**179.** Write about the experiment conducted by Ivan Pavlov on conditioned reflex.



**Watch Video Solution**

**180.** Write briefly a about the functional and structural aspects of esophagus



**Watch Video Solution**

**181.** Explain briefly about the structure of stomach.



**Watch Video Solution**

**182.** Draw a neat and labelled diagram of anal sphincter.



**Watch Video Solution**

**183.** The coordination among these processes is necessary for utilization oxidation and transport of nutrients

A. Digestion

B. respiration

C. circulation

D. all the above

**Answer:**



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**184.** What is called Mastication ? How many types of teeth help in this process ?

A. Mouth

B. Nose

C. Stomach

D. Intestine

**Answer:**



**Watch Video Solution**

**185.** The food is pushed into the mouth due to

A. Circular muscles

B. Surface muscles

C. Reflex muscles

D. Striated muscles

**Answer:**



**Watch Video Solution**

**186.** Which cranial nerve control the movement of muscles in the jaw ?

A. 5th

B. 6th

C. 7th

D. 10th

**Answer:**



**Watch Video Solution**

**187.** The slurry mass of food in the mouth is

A. Bolus

B. Chyme

C. Chyle

D. Chylochyme

**Answer:**



**Watch Video Solution**

**188.** The mechanism for swallowing is controlled by

- A. Brain stem
- B. Spinal cord
- C. Vagus nerve
- D. Olfactory nerve

**Answer:**



**Watch Video Solution**

**189.** Tooth decay start when the pH of the mouth is lower than-

A. Acidic

B. Alkaline

C. Neutral

D. None

**Answer:**



**Watch Video Solution**

**190.** I am the sphincter which helps in the expulsion of stool. Who am I ?

- A. Storage of stools
- B. exit of stools
- C. making of stools
- D. breakdown of stools

**Answer:**



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**191.** the acid formed in stomach is-

- A. The gastric juice secreted by the stomach
- B. The pepsin present in the gastric juice
- C. The fats present in the food
- D. The mucus secreted by walls of stomach

**Answer:**



**Watch Video Solution**

**192.** When does peristalsis occur in anti-clock-wise

- A. Bolus moves towards stomach
- B. Drinking water
- C. During vomiting
- D. During fasting

**Answer:**



**Watch Video Solution**

**193.** pH condition of stomach is.....

A. Basic

B. Acidic

C. Neutral

D. Salt

**Answer:**



**Watch Video Solution**

**194.** How can you justify the enteric nervous system as the second brain of the gut ?

- A. Excretory system
- B. Circulatory system
- C. Digestive system
- D. Transport system

**Answer:**



**195.** Peristalsis is because of .....

- A. Longitudinal and circular muscles
- B. Jaw muscles
- C. Surface muscles
- D. Striated muscles

**Answer:**



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**196.** What is the location of second brain in our body ?

- A. Neural apparatus in the digestive tract
- B. Stomach
- C. Pharynx
- D. Colon

**Answer:**



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**197.** Protein digestion starts in

A. Stomach

B. Gut

C. Colon

D. Rectum

**Answer:**



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**198.** Fill in the blanks with suitable words given below.

Fluctuations of hormone .....(i).....levels results in sensation of hunger and motivation of consuming food. When you feel your stomach is full and there is no need of food any more. Another hormone .....(ii).....that gets secreted suppresses hunger . We take food into the mouth it has to be chewed thoroughly. For this purpose the.....(iii)..... muscles help in chewing actions, while the .....(iv)..... muscles of the jaw moves the

jaw up, down ,forward and backward during food mastication. The .....(v)..... nerve controls the muscles of the jaw. Under the action of .....(vi).....nervous system Saliva is released by the salivary glands moistens the food to make chewing and swallowing easier. The salivary .....(vii).....in the saliva breaks down the starch into sugars. As a result of chewing the food is transported into the esophagus by the action of swallowing which is collimated by the swallowing center in the .....(viii)..... and the .....(ix).....The tongue which is gustatory recognizes the taste

and.....(x).....nerve plays an important role in sensation of taste.

Choose the right ones.

i) Leptin , ghrelin , gastrin , secretin.

ii) ghrelin , Leptin , secretin , gastrin.

iii) deep muscles , surface muscles , circular muscles, striated muscles.

iv) surface muscles , deep muscles , neck muscles , long muscles.

v) fifth cranial nerve , second cranial nerve , fifth facial nerve , spinal nerve.

vi) central nervous system , peripheral nervous system , autonomous nervous system

vii) lipase , sucrose , galactase , amylase.

viii) medulla oblongata , cerebrum , 8th spinal nerve , cranial nerve, 7th cranial nerve.

ix) Pons virile , brain stem medulla oblongata , mid brain .

x) 6th cranial nerve , 5th cranial nerve, 10th cranial nerve , optic nerve.

A. 6th cranial nerve

B. 5th cranial nerve

C. Thick nerve

D. 10th cranial nerve

**Answer:**



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**199.** Entry of chyme into duodenum is regulated by a muscle called

- A. Pyloric sphincter
- B. Anal sphincter
- C. Long muscles
- D. Straightened muscle

**Answer:**



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**200.** How many pairs of salivary glands are present in our mouth ?

A. 2 pairs

B. 3 pairs

C. 4 pairs

D. 5 pairs

**Answer:**



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**201.** It is believed that the Diencephalon in fore-brain and vagus nerve (10th cranial nerve) plays an important role in carrying hunger signals to the brain . Hunger pangs continue unto 30-45 minutes . Increase in ghrelin levels results in sensation of hunger and motivation to consume food.

Read above content and prepare any two questions.

A. 25 to 30 minutes

B. 30 to 40 minutes

C. 25 to 40 minutes

D. 30 to 45 minutes

**Answer:**



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**202.** Which of the following is not a component of pancreatic juice?

A. Fats

B. Carbohydrates

C. Proteins

D. Minerals

**Answer:**



**Watch Video Solution**

**203.** Name the teeth with sharp and pointed edges .

A. Incisors

B. Canines

C. Premolars

D. Molars

**Answer:**



**Watch Video Solution**

**204.** What is the dental formula of man ?

A. 3,1,3,2

B. 2,1,3,2

C. 2,1,2,3

D. 2,3,1,2

**Answer:**



**Watch Video Solution**

**205.** Food bolus forms in

A. Bolus

B. Chyme

C. Cud

D. All the above

**Answer:**



**Watch Video Solution**

**206.** The mechanism for swallowing is controlled by

- A. Cerebrum
- B. Diencephalon
- C. Mid brain
- D. Brain stem

**Answer:**



**Watch Video Solution**

**207.** what is the pH value of solution?

A. Alkaline

B. Acidic

C. Neutral

D. All

**Answer:**



**Watch Video Solution**

**208.** What about the nature of medium for salivary amylase to act on food component ?

A. Acidic

B. Alkaline

C. Neutral

D. Both acidic and alkaline

**Answer:**



**Watch Video Solution**

**209.** What is the quantity of saliva secreted by us per day ?

A. 1-1.25 liters

B. 1-1.5 liters

C. 2-2.25 liters

D. 1.75 liters

**Answer:**



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**210.** What is the function of peristalsis in these parts of Human digestive system ?

Small intestine

A. Oesophagus

B. Stomach

C. Small intestine

D. All

**Answer:**



**Watch Video Solution**

**211.** The gastric juice secreted by the walls of stomach contains .....

A. Hydrochloric acid

B. Nitric acid

C. Sulfuric acid

D. Amino acid

**Answer:**



**Watch Video Solution**

212. What happens if the direction of peristalsis is not reversed in animal like cow ?

A. Cow

B. Buffalo

C. Goats, sheep's

D. All

**Answer:**



**Watch Video Solution**

**213.** What is the chemical nature of food when it enters the small intestine ?

A. Acidic

B. Alkaline

C. Neutral

D. All

**Answer:**



**Watch Video Solution**

**214.** By which process the absorption of nutrients takes place in small intestine.

- A. Elective process
- B. Selective process
- C. Both selective and elective process
- D. None

**Answer:**



**Watch Video Solution**

**215.** Sensation of hunger and motivation to consume food occurs due to

- A. Increase in ghrelin levels
- B. Decrease in ghrelin levels
- C. Increase in leptin levels
- D. Increase in secretin levels

**Answer:**



**Watch Video Solution**

**216.** We can taste the food quickly which is in the form of

A. Solid

B. Liquid

C. Semi solid

D. Gas

**Answer:**



**Watch Video Solution**

**217.** What are the different types of papillae present on the tongue ?

- A. Villate papillae
- B. Pholiate papillae
- C. Piliiform papillae
- D. Fungi form papillae

**Answer:**



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**218.** Name the Russian scientist who conducted experiments on classical conditioning.

A. Conditioned reflects

B. Unconditional reflex

C. Insight learning

D. Instincts

**Answer:**



**Watch Video Solution**

**219.** What protects the inner lining of the stomach from the harmful effects of hydrochloric acid ?

A. Saliva

B. Pepsin

C. Peristalsis

D. Mucus

**Answer:**



**Watch Video Solution**

**220.** What are the parts of human digestive system ?

- A. Muscular system
- B. Nervous system
- C. Both A and B
- D. None of the above

**Answer:**



**Watch Video Solution**

**221.** In which process oxidation of food takes place ?

- A. Excretion
- B. Circulation
- C. Respiration
- D. None of the above

**Answer:**



**Watch Video Solution**

**222.** Large protein molecules are broken down in .....of digestive track.

A. Mouth

B. Stomach

C. Oesophagus

D. Small intestine

**Answer:**



**Watch Video Solution**

**223.** The gastric juice secreted by the walls of stomach contains .....

A. Hydrochloric oxide

B. Sulfuric acid

C. Nitric acid

D. Phosphoric acid

**Answer:**



**Watch Video Solution**

**224.** Olfactory receptors present in.....triggering signals to brain.

A. Tongue

B. Nose

C. Ear

D. All

**Answer:**



**Watch Video Solution**

**225.** What is enteric nervous system ?

- A. Stimulating and coordinating the breaking down of food
- B. Absorbing nutrients
- C. Expelling wastes
- D. All the above

**Answer:**



**Watch Video Solution**

**226.** Water and nutrients are absorbed in

- A. Stomach
- B. Small intestine
- C. Large intestine
- D. All the above

**Answer:**



**Watch Video Solution**

**227.** The muscles of the lower jaw are controlled by

A. Circular

B. Surface

C. Longitudinal

D. Transverse

**Answer:**



**Watch Video Solution**

**228.** Name the enzyme present in saliva.

A. Tripsin

B. Pepsin

C. Amylase

D. All the above

**Answer:**



**Watch Video Solution**

**229.** Saliva is released from glands under the action of this nervous system

- A. Central nervous system
- B. Peripheral nervous system
- C. Autonomous nervous system
- D. Sympathetic nervous system

**Answer:**



**Watch Video Solution**

**230.** Fill in the blanks with suitable words given below.

Fluctuations of hormone .....(i).....levels results in sensation of hunger and motivation of consuming food. When you feel your stomach is full and there is no need of food any more. Another hormone .....(ii).....that gets secreted suppresses hunger . We take food into the mouth it has to be chewed thoroughly. For this purpose the.....(iii)..... muscles help in chewing actions, while the .....(iv)..... muscles of the jaw moves the jaw up, down ,forward and backward during

food mastication. The .....(v)..... nerve controls the muscles of the jaw. Under the action of .....(vi).....nervous system Saliva is released by the salivary glands moistens the food to make chewing and swallowing easier. The salivary .....(vii).....in the saliva breaks down the starch into sugars. As a result of chewing the food is transported into the esophagus by the action of swallowing which is collimated by the swallowing center in the .....(viii)..... and the .....(ix).....The tongue which is gustatory recognizes the taste and.....(x).....nerve plays an important role

in sensation of taste.

Choose the right ones.

i) Leptin , ghrelin , gastrin , secretin.

ii) ghrelin , Leptin , secretin , gastrin.

iii) deep muscles , surface muscles , circular muscles, striated muscles.

iv) surface muscles , deep muscles , neck muscles , long muscles.

v) fifth cranial nerve , second cranial nerve , fifth facial nerve , spinal nerve.

vi) central nervous system , peripheral nervous system , autonomous nervous system

vii) lipase , sucrose , galactase , amylase.

viii) medulla oblongata , cerebrum , 8th spinal nerve , cranial nerve, 7th cranial nerve.

ix) Pons virile , brain stem medulla oblongata , mid brain .

x) 6th cranial nerve , 5th cranial nerve, 10th cranial nerve , optic nerve.

A. Medulla oblongata and cerebellum

B. Medulla oblongata and brain stem

C. Cerebrum and cerebellum

D. Cerebrum and brain stem

**Answer:**



[Watch Video Solution](#)

**231.** pH of saliva is..... in nature.

A. Acidic

B. Neutral

C. Alkaline

D. None of the above

**Answer:**



[Watch Video Solution](#)

**232.** Fill in the blanks with suitable words given below.

Fluctuations of hormone .....(i).....levels results in sensation of hunger and motivation of consuming food. When you feel your stomach is full and there is no need of food any more. Another hormone .....(ii).....that gets secreted suppresses hunger . We take food into the mouth it has to be chewed thoroughly. For this purpose the.....(iii).....muscles help in chewing actions, while the

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A. Leptin

B. Ghrelin

C. Thyroxine

## D. Paratharmone

**Answer:**



**Watch Video Solution**

**233.** Ghrelin    Sensation of hunger  
?              Suppression of hunger

A. Leptin

B. Ghrelin

C. Adrenalin

D. Cortisol

**Answer:**



**Watch Video Solution**

**234.** With the help of a diagram show the movement of food from mouth to the stomach . What muscles and nerves are involved in the movement of food and what is this action called ?

A. Circular muscles

B. Surface muscles

C. Longitudinal muscle

D. Transverse muscle

**Answer:**



**Watch Video Solution**

**235.** When do we feel hunger pangs fall in stomach ?

A. Level of glucose in the blood rises

B. Level of glucose in the blood remain unchanged

C. Level of glucose in blood falls

D. All the above

**Answer:**



**Watch Video Solution**

**236.** When stomach goes empty this hormone is secreted from the walls of the stomach

A. Ghrelin

B. Leptin

C. Secretin

D. Gastrin

**Answer:**



**Watch Video Solution**

**237.** What about the nature of medium for salivary amylase to act on food component ?

A. starch

B. Protein

C. Fat

D. Minerals

**Answer:**



**Watch Video Solution**

**238.** Complete the blanks.

If the pH is beyond 7 , it is said to be .....(1) If  
the pH is below, 7 it is said to be .....(2).

A. Alkaline

B. Acidic

C. neutral

D. None of the above

**Answer:**



**Watch Video Solution**

**239.** What about the nature of medium for salivary amylase to act on food component ?

A. Alkaline

B. Acidic

C. neutral

D. All the above

**Answer:**



**Watch Video Solution**

**240.** For the digestion to occur in the food canal, coordination of these two processes are necessary

A. Respiration, circulation

B. Nutrition and digestion

C. excretion, transport

D. Respiration, reproduction

**Answer:**



**Watch Video Solution**

**241.** These animals have extrapouch in the stomach to store quickly swallowed food

A. Herbivores

B. Ruminants

C. carnivores

D. Omnivores

**Answer:**



**Watch Video Solution**

**242.** Acid should be added to water but not water to the acid. Why ?

A. Saliva, iodine

B. Saliva, starch, janus green B

C. chlorophyll, saliva

D. Xylene, iodine

**Answer:**



**Watch Video Solution**

**243.** Belching and burning sensation is caused by the production of.... Acid in the stomach

A. Nitric acid

B. Hydro chloric acid

C. sulfuric acid

D. Phosphorous acid

**Answer:**



**Watch Video Solution**

**244.** Umami taste is ..... For savory

A. Chinese

B. Japanese

C. English

D. Indian

**Answer:**



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**245.** The interaction between which senses increases our perception of the food we eat ?

A. Sense of taste and see

B. Sense of sight and smell

C. Sense of taste and smell

D. Senses of smell and touch

**Answer:**



**Watch Video Solution**

**246.** Fill in the blanks .

.....(1) plays a major role in identifying the taste of a substance. ....(2) experiment is done to prove this.

- A. Taste buds
- B. taste receptors
- C. Filiform papillae
- D. All the above

**Answer:**



**Watch Video Solution**

**247.** There is a difference between the tastes of the food which is simply placed on the

tongue and when the tongue pressed against the palate. Give reason

A. Throat

B. buccal cavity

C. Palate

D. Glottis

**Answer:**



**Watch Video Solution**

**248.** Iodine solution is used for testing the presence of

A. Starch

B. protein

C. Fats

D. Minerals

**Answer:**



**Watch Video Solution**

**249.** When we eat we use these without our knowledge?

- A. Sight (eyes)
- B. nose
- C. Tongue
- D. All the above

**Answer:**



**Watch Video Solution**

**250.** What is the role of acid in stomach ?

- A. Cartilage
- B. hard bones
- C. Muscle
- D. Tendons

**Answer:**



**Watch Video Solution**

**251.** To increase the area for action of the food substance food must be

A. Sent into the mouth

B. chewed

C. Smelt

D. Cooked

**Answer:**



**Watch Video Solution**

**252.** Acidic nature of chyme initiates the production of which hormones ?

- A. Trypsin, chymotrypsin
- B. Pepsin, Trypsin
- C. Secretin , cholecystokinin
- D. Lipase, sucrase

**Answer:**



**Watch Video Solution**

**253.** How many neurons are present in enteric nervous system ?

- A. Transmitters
- B. Neurotransmitters
- C. Electrons
- D. Electrodes

**Answer:**



**Watch Video Solution**

**254.** the second brain contains about million neurons....

A. 200

B. 100

C. 300

D. 500

**Answer:**



**Watch Video Solution**

**255.** With what name do we call the partially digested food in stomach ?

A. Bolon

B. Bolus

C. Chyme

D. Semi bolus

**Answer:**



**Watch Video Solution**

**256.** Identify the mismatched pair.

1. Villi - small intestine

2. Pyloric sphincter - junction of small intestine  
and large intestine

3. Reverse peristalsis-man

A. Herbivores

B. Ruminant

C. Carnivore

D. Omnivore

**Answer:**





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**257.** How much time it would take for emptying of 100 % food from small intestine ?

- A. 30-40 hours
- B. 20 – 30 hours
- C. 30 – 50 hours
- D. 20 – 40 hours

**Answer:**



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**258.** In which part of the intestine the faecal matter is stored for some time ?

A. Rectum

B. Colon

C. Caecum

D. Duodenum

**Answer:**



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**259.** Read the sentence , identify the error and rewrite it.

The area of absorption in small intestine is increased by lacteals.

A. Villi

B. Lymph vessels

C. Blood vessels

D. Sphincter Muscles

**Answer:**



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**260.** If energy has to be obtained from food it has to be

- A. Reduced
- B. Oxidized-reduced
- C. Oxidized
- D. Fermented

**Answer:**



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**261.** Name the digestive tract which is nicknamed by scientists as the second brain

A. Second brain

B. Third brain

C. First brain

D. Fourth brain

**Answer:**



**Watch Video Solution**

**262.** How can you justify the enteric nervous system as the second brain of the gut ?

- A. Excretory system
- B. Circulatory system
- C. Digestive system
- D. Transport system

**Answer:**



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**263.** Respiration is an involuntary process controlled by the medulla oblongata of this nervous system

- A. Autonomous nervous system
- B. Peripheral nervous system
- C. Central nervous system
- D. A symphetic nervous system

**Answer:**



**Watch Video Solution**

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

Diaphragm plays an important role in the respiratory movements in women

A. Liver

B. Lungs

C. Abdomen

D. Kidney

**Answer:**



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## Medicine Oriented Material

1. Hormones are secreted by ductless glands of human body. Iodine containing hormone is

- A. Enzyme
- B. Glandular secretion
- C. Chemical messenger
- D. Excretory product

**Answer:**



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2. Name the phytohormone that promotes cell division.

A. ADH

B. ACTH

C. PTH

D. GH

**Answer:**





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3. Release of milk from mother is mediated through-

- A. Prolactin
- B. Relaxin
- C. Oxytocin
- D. Progesterone

**Answer:**



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4. Intercellular communication in multi cellular organisms occurs through-

- A. Digestive system only
- B. Respiratory system only
- C. Nervous system only
- D. Nervous and endocrine system

**Answer:**



**Watch Video Solution**

5. Which one of the following pairs correctly matches a hormone with a disease resulting from its deficiency?

A. Luteinizing hormone - failure of ovulation

B. Insulin - diabetes insipidus

C. Thyroxine - tetany

D. Parathyroid - diabetes mellitus

**Answer:**





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6. Which one of the following hormones is modified amino acid?

A. Prostaglandin

B. Oestrogen

C. Progesterone

D. Epinephrine

**Answer:**



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7. What will happen if Islets of langerhans fall to function ?

A. Increased heart beat rate

B. Hyperglycemia

C. Hypoglycemia

D. Increased BMR

**Answer:**



**Watch Video Solution**

8. Cell plate which transforms into middle lamellum is secreted by

A. Adrenal cortex

B. Adrenal medulla

C. Adenohypophysis

D. Neurohypophysis

**Answer:**



**Watch Video Solution**

## 9. Glucagon is

- A. Beta cells of pancreas
- B. Beta cells of liver
- C. Alpha cells of pancreas
- D. Alpha cells of liver

**Answer:**



**Watch Video Solution**

**10.** Human insulin is obtained from genetically engineered

A. Thyroxine

B. Insulin

C. glucagon

D. ADH

**Answer:**



**Watch Video Solution**

11. Which hormone is called "flight or Flight" hormones?

- A. Thyroxine
- B. Adrenaline
- C. Oxytocin
- D. Oestrogen

**Answer:**



**Watch Video Solution**

12. Name the scientists who are associated with the extraction of insulin from degenerated animal pancreas.

A. Bayliss

B. Sterling

C. Banting and Best

D. Mering

**Answer:**



**Watch Video Solution**

**13.** Which one of the following is not a protein ?

A. Growth hormone

B. ACTH

C. FSH

D. Testosterone

**Answer:**



**Watch Video Solution**

**14.** Which one of the following pair of organs includes only the endocrine glands?

- A. Thymus and testes
- B. Parathyroid and adrenal
- C. Pancreas and parathyroid
- D. Adrenal and ovary

**Answer:**



**Watch Video Solution**

**15. Pituitary gland is divided into**

A. Brain

B. Testes

C. Ovary

D. Kidneys

**Answer:**



**Watch Video Solution**

**16.** High concentration of estrogen inhibits secretion of

A. Thyroid

B. Secretions of anterior pituitary

C. Deposition of fat

D. Secretion of ACTH

**Answer:**



**Watch Video Solution**

17. Name the digestive gland which act as exocrine as well as endocrine.

A. Adrenal

B. Pancreas

C. Pituitary

D. Liver

**Answer:**



**Watch Video Solution**

**18.** Which of the following is an emergency gland?

A. Testis

B. Adrenal

C. thymus

D. Pituitary

**Answer:**



**Watch Video Solution**

**19.** Hormone secreted in stomach when we are hungry?

A. Ghrelin

B. Thymus

C. Progesterone

D. Oestrogen

**Answer:**



**Watch Video Solution**

**20.** Name the hormone that suppresses hunger pangs.



**Watch Video Solution**

**21.** Dental formula in human beings is



**Watch Video Solution**

**22.** Which cranial nerve control the movement of muscles in the jaw ?



**Watch Video Solution**

23. Fill in the blanks: Oesophagus shows \_\_\_\_\_ movements.



**Watch Video Solution**

24. Fill in the blanks: The opening of oesophagus is called \_\_\_\_\_.



**Watch Video Solution**

25. Fill in the blanks: The sharp angle of oesophagus prevents \_\_\_\_\_.



**Watch Video Solution**

26. Fill in the blanks: The lining of oesophagus has \_\_\_\_\_ cells.



**Watch Video Solution**

27. Fill in the blanks: The nerves that supply to oesophagus are called \_\_\_\_\_ and \_\_\_\_\_.



**Watch Video Solution**

28. The large intestine absorbs



**Watch Video Solution**

29. What is the use of villi in small intestine ?



**Watch Video Solution**

**30.** The bones involved in the formation of hard palate are



**Watch Video Solution**

**31.** Fill in the blanks: The soft palate contains a hanging portion called \_\_\_\_\_.



**Watch Video Solution**

**32.** What are the different types of papillae present on the tongue ?



**Watch Video Solution**

**33.** Fill in the blanks: The position of tongue is partly in \_\_\_\_\_ and partly in \_\_\_\_\_.



**Watch Video Solution**

**34.** Saliva is released from glands under the action of this nervous system



**Watch Video Solution**

**35.** Which nervous system control the secretion of saliva in the mouth ?



**Watch Video Solution**

**36.** Mammals have teeth of this type



**Watch Video Solution**

**37.** Fill in the blanks: The \_\_\_\_\_ is called second brain.



**Watch Video Solution**

**38.** Fill in the blanks: The external sphincter of rectum is \_\_\_\_\_ in nature.



**Watch Video Solution**

**39.** Fill in the blanks: The internal sphincter of rectum is controlled by \_\_\_\_\_.



**Watch Video Solution**

**40.** Which part of ovary in mammals acts as an endocrine gland after ovulation?



**Watch Video Solution**

**41.** Where does reabsorption of water takes place in excretion?



**Watch Video Solution**

**42.** Fill in the blanks: Fight and flight hormone is \_\_\_\_\_.



**Watch Video Solution**

**43.** A person is having problems with calcium and phosphorus metabolism in his body. Which one of the following glands may not be functioning properly?



**Watch Video Solution**

**44.** Which one of the following is not a second messenger in hormone action?



**Watch Video Solution**

## Improve Your Learning

1. What do you mean by hunger pangs ?



**Watch Video Solution**

2. What are the organ systems involved in digestion of food which we eat ?



**Watch Video Solution**

**3.** Rafi said smell also increase our appetite.

Can you support this statement ? How?



**Watch Video Solution**

**4.** Write a note on peristalsis and sphincter function in stomach .



**Watch Video Solution**

5. Observe the given part of the digestive system . What is it ? What is its role during digestion ?



**Watch Video Solution**

6. Give reasons.

If we press tongue against the palate, we can recognise taste easily.



**Watch Video Solution**

7. Give reasons.

We can't identify taste when food is very hot.



**Watch Video Solution**

8. Give reasons.

If glucose level falls in blood we feel hungry.



**Watch Video Solution**

**9. Give reasons.**

Small intestine is similar to a coiled pipe.



**Watch Video Solution**

**10. Given reasons.**

Urination increases when we take a lot of fluids.



**Watch Video Solution**

**11.** Given reasons.

The process of digestion goes on in a person whose central nervous system has been largely affected.



**Watch Video Solution**

**12.** Write difference between the following.

bolus - chyme



**Watch Video Solution**

**13.** Write differences between the following :

Small intestine - Large intestine



**Watch Video Solution**

**14.** Write difference between the following.

mastication - rumination



**Watch Video Solution**

**15.** Write difference between the following.

propulsion - retropulsion



**Watch Video Solution**

**16.** How can you say that mouth is a munching machine?



**Watch Video Solution**

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**Watch Video Solution**

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**Watch Video Solution**

**19.** Is there any reason for the intestine to be coiled with many folds. In what way it is helpful during the process of digestion ?



**Watch Video Solution**

**20.** What is the function of peristalsis in these parts?

oesophagus



**Watch Video Solution**

21. what is the function of peristalsis in these parts ?

Stomach



**Watch Video Solution**

22. What is the function of peristalsis in these parts?

small intestine



**Watch Video Solution**

**23.** What is the function of peristalsis in these parts?

large intestine



**Watch Video Solution**

**24.** How can you justify the enteric nervous system as the second brain of the gut ?



**Watch Video Solution**

**25.** Rajesh feels hungry upon seeing food. Sheela says no to food as she is not hungry. What makes Rajesh hungry and what suppresses Sheela's hunger ?



**Watch Video Solution**

**26.** How are taste and smell related ?



**Watch Video Solution**

**27.** List out the sphincter muscles of the food canal you have observed and give a brief description ?



**Watch Video Solution**

**28.** What experiment do you perform to understand action of saliva on flour ? Explain its procedure and apparatus that you followed .



**Watch Video Solution**

**29.** What happens if salivary ducts are closed?



**Watch Video Solution**

**30.** If the size and shape of small intestine is like esophagus what will happen ?



**Watch Video Solution**

**31.** Prepare a questionnaire to understand nervous coordination in digestion process.



**Watch Video Solution**

**32.** Suggest a simple experiment to prove the role of palate in recognizing taste.



**Watch Video Solution**

**33.** Collect information related to feeling and hunger from your school library and prepare a note on it .



**Watch Video Solution**

**34.** Draw the block diagram showing sensation of taste from food material to brain.



**Watch Video Solution**

**35.** Draw a neatly labeled diagram showing a peristaltic movement in oesophagus. Explain the importance of mucus on the walls of food pipe.



**Watch Video Solution**

**36.** Draw a schematic diagram of villus in small intestine. Explain how digestive system coordinate with circulatory system.



**Watch Video Solution**

**37.** The mere smell or sight of food stimulates hunger. Describe the process in a flow chart.



**Watch Video Solution**

**38.** With the help of a diagram show the movement of food from mouth to the stomach . What muscles and nerves are involved in the movement of food and what is this action called ?



**Watch Video Solution**

**39.** Prepare a cartoon on Pavlov's experiment with a suitable caption.



**Watch Video Solution**

**40.** How do you appreciate stomach as a churning machine .How does this coordination go on?



**Watch Video Solution**

**41.** There is great variety in diversified life processes, express your feeling in the form of poem.



**Watch Video Solution**

**42.** Suggest any two important habitual actions to your friend while eating food, keeping in view of this chapter.



**Watch Video Solution**

## Improve Your Learning Fill In The Blanks

1. 2 : 1 : 2 : 3 is the ratio of our dentition. Here 1 represents \_\_\_\_\_



**Watch Video Solution**

2. Large protein molecules are broken down in .....of digestive track.



**Watch Video Solution**

3. \_\_\_\_\_ is the strong acid which is secreted during digestion.



**Watch Video Solution**

4. Olfactory receptors present in.....triggering signals to brain.



**Watch Video Solution**

5. pH of saliva is..... in nature.



**Watch Video Solution**

**6.** Fill in the blanks with suitable words given below.

Fluctuations of hormone .....(i).....levels results in sensation of hunger and motivation of consuming food. When you feel your stomach is full and there is no need of food any more. Another hormone .....(ii).....that gets secreted suppresses hunger . We take food into the mouth it has to be chewed thoroughly. For this purpose the.....(iii).....muscles help in chewing actions, while the

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**Improve Your Learning Choose The Correct Answer**

1. In which of the following situations you can taste quickly. ( )

A. Put sugar crystals on tongue

B. Put sugar solution on tongue.

C. Press the tongue slowly against the palate

D. Swallow directly without grinding and shredding

**Answer:**



**Watch Video Solution**

2. Peristalsis is because of ( )

- A. Contraction of longitudinal muscles.
- B. Contraction of circular muscles
- C. Under control of autonomous nervous system
- D. Digestive secretions.

**Answer:**



**Watch Video Solution**

3. Sphincter that helps in opening of stomach into duodenum

A. 1. Cardiac

B. 2. Pyloric

C. 3. Anal

D. 4. Gastric

**Answer:**



**Watch Video Solution**

4. Glucose and amino acids are absorbed through the following part of villus.

- A. 1. Epithelial cells
- B. 2. Blood capillary
- C. 3. Lymphatic vessel
- D. 4. All

**Answer:**



**Watch Video Solution**

5. The region in brain portion that controls hunger signals

A. 1. Medulla

B. 2. Diencephalon

C. 3. Cerebrum

D. 4. Mid brain

**Answer:**



**Watch Video Solution**

6. Human organism is an internal combustion machine because of

A. 1. Assimilation of energy from food

B. 2. Liberate  $CO_2$  during respiration

C. 3. End state digestion

D. 4. Secrete powerful digestive juices

**Answer:**



**Watch Video Solution**

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**Watch Video Solution**

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**Watch Video Solution**

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**Watch Video Solution**

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**Watch Video Solution**

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**Watch Video Solution**

**23.** What is the function of peristalsis in these parts?

large intestine



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**24.** How can you justify the enteric nervous system as the second brain of the gut?



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**25.** Rajesh feels hungry upon seeing food. Sheela says no to food as she is not hungry. What makes Rajesh hungry and what suppresses Sheela's hunger?



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**26.** How are taste and smell related?(AS1)



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**27.** List out the sphincter muscles of the food canal you have observed and give a brief description?



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**28.** What experiment should you perform to understand action of saliva on flour? Explain its procedure and apparatus that you followed.



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**29.** What happens if salivary ducts are closed?



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**30.** If size and shape of small intestine is like oesophagus what will happen?



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**31.** Prepare a questionnaire to understand nervous coordination in digestion process.



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**32.** Suggest a simple experiment to prove the role of palate in recognizing taste.



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**33.** Collect information related to feeling hunger from your school library and prepare a note on it.



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**34.** Draw the block diagram showing sensation of taste from food material to brain.



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**35.** Draw a neatly labeled diagram showing a peristaltic movement in oesophagus. Explain the importance of mucus on the walls of food pipe.



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**36.** Draw a schematic diagram of villus in small intestine. Explain how digestive system coordinate with circulatory system.



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**37.** The mere smell or sight of food stimulates hunger. Describe the process in a flow chart.



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**38.** With the help of a diagram show the movement of food from mouth to the stomach. What muscles and nerves are involved in the movement of food and what is this action called as?



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**39.** Prepare a cartoon on Pavlov's experiment with a suitable caption.



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**40.** How do you appreciate stomach as a churning machine .How does this coordination go on?



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**41.** There is a great variety in diversified life processes, express your feelings in the form a poem.



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42. Suggest any two important habitual actions to your friend while eating food, keeping in view of this chapter.



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## Fill In The Blanks

1. 3:2:1:2 is the ratio of our dentition. Here 1 represents \_\_\_\_\_.



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2. Large protein molecule are broken down in \_\_\_\_\_ of digestive tract



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3. \_\_\_\_\_ is the strong acid which is secreted during digestion.



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4. Olfactory receptors present in \_\_\_\_\_  
trigger signals to brain.



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5. pH of saliva is \_\_\_\_\_ in nature.



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6. Fill in the blanks with suitable words given  
below.

Fluctuations of hormone (i) \_\_\_\_\_ levels results in sensation of hunger and motivation of consuming food. When you feel your stomach is full and there is no need of food any more. Another hormone (ii) \_\_\_\_\_ that gets secreted suppresses hunger. When we take food into the mouth it has to be chewed thoroughly. For this purpose the (iii) \_\_\_\_\_ muscles help in chewing actions, while the (iv) \_\_\_\_\_ muscles of the jaw moves the jaw up,down ,forward and backward during food mastication. The (v) \_\_\_\_\_ nerve controls the muscles of

the jaw. . Under the action of (vi) \_\_\_\_\_ nervous system Saliva is released by the salivary glands moistens the food to make chewing and swallowing easier. The salivary (vii) \_\_\_\_\_ in the saliva breaks down the starch into sugars. As a result of chewing the food is transported into the oesophagus by the action of swallowing which is coordinated by the swallowing centre in the (viii) \_\_\_\_\_ and the (ix) \_\_\_\_\_. The tongue which is gustatory recognizes the taste and (x) \_\_\_\_\_ nerve plays an important role in sensation of taste.

Choose the right ones.

1) leptin, grehlin gastrin secretin.

2) ghrelin leptin secretin gastrin.

3) deep muscles ,surface muscles ,circular muscles, striated muscles.

4) surface muscles, deep muscles, neck muscles, long muscle.

5) fifth cranial nerve ,second cranial nerve,fifth facial nerve, spinal nerve.

6) central nervous system, peripheral nervous system autonomous nervous system.

7) lipase, sucrase, galactase,amylase.

8) medulla oblongata, cerebrum , 8th spinal

nerve, cranial nerve. 7th cranial nerve.

9) Pons varoli, brain stem, medulla oblongata, mid brain.

10) 6<sup>th</sup> cranial nerve, 5<sup>th</sup> cranial nerve, 10<sup>th</sup> cranial nerve, optic nerve.



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**Choose The Correct Answer**

1. In which of the following situations you can taste quickly. ( )

A. Put sugar crystals on tongue

B. Put sugar solution on tongue.

C. Press the tongue slowly against the  
palate

D. Swallow directly without grinding and  
shreding

**Answer:**



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2. Peristalsis is because of ( )

A. Contraction of longitudinal muscles.

B. Contraction of circular muscles

C. Under control of autonomous nervous  
system

D. Digestive secretions.

**Answer:**



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3. Sphincter that helps in opening of stomach into duodenum

A. Cardiac

B. Pyloric

C. Anal

D. Gastric

**Answer:**



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4. Glucose and amino acids are absorbed through the following part of villus.

- A. epithelial cells
- B. blood capillary
- C. lymphatic vessel
- D. all

**Answer:**



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5. The region in brain portion that controls hunger signals

A. medulla

B. diencephalon

C. cerebrum

D. mid brain

**Answer:**



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6. Human organism is an internal combustion machine because of

A. assimilation of energy from food

B. liberate  $CO_2$  during respiration

C. expel waste food at the end state  
digestion

D. secrete powerful digestive juices

**Answer:**



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