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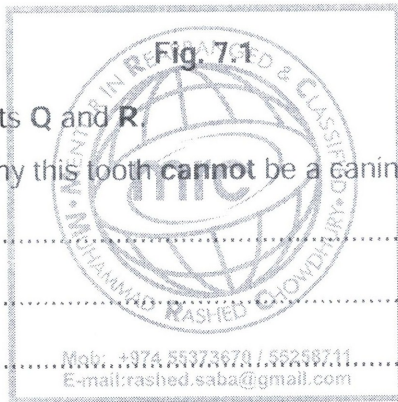
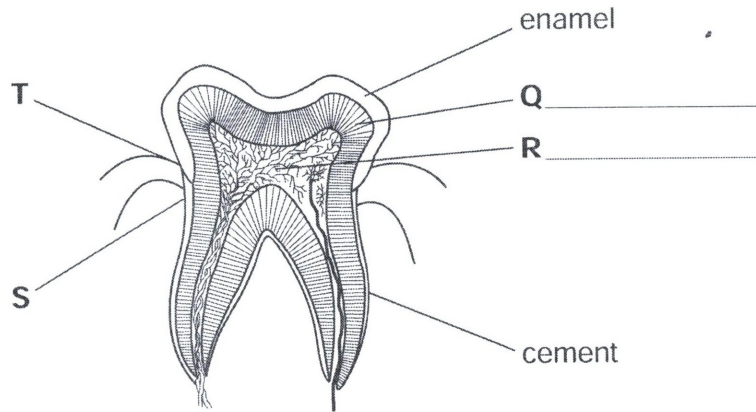
BIOLOGY-0610/31, 32, 33
TOPIC-ANIMAL NUTRITION
(TEETH)

01 (a) Teeth are involved in mechanical digestion.

What is meant by the term *mechanical digestion*?

.....
..... [2]

(b) Fig. 7.1 shows a section through a molar tooth.



(i) On Fig. 7.1, label parts Q and R. [2]

(ii) State **two** reasons why this tooth **cannot** be a canine tooth.

1
.....
2
..... [2]

(iii) Gum disease causes the gums to shrink from position T to position S, as shown on Fig. 7.1.

Suggest why the tooth is more likely to decay when the gums are at position S.

.....
.....
..... [2]

(iv) State **two** ways of maintaining healthy teeth.

1
.....
2
..... [2]

[Total: 10]

(ii) Table 2.1 states three methods of caring for the teeth to prevent dental decay.

Complete Table 2.1 by describing why each method is effective.

Table 2.1

method of caring for the teeth	description of why the method is effective
brushing	
rinsing the mouth after eating	
not eating sweet foods between meals	

[3]

(b) (i) There are four types of teeth.

State the functions of each of the following when food is being eaten.

incisors

.....

canines

.....

premolars and molars

.....

[3]

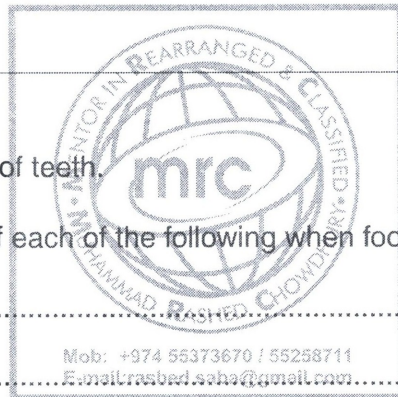
(ii) Suggest how the tongue helps in the process of chewing.

.....

.....

.....

[1]



(c) Describe **two** reasons why solid food is chewed before it is swallowed.

1

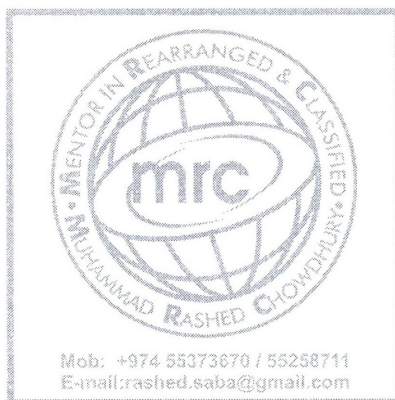
.....

2

.....

[2]

[Total: 13]



3 (b) Enzymes are involved in chemical digestion.

7-V-1-(3)

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Describe the function of the enzyme lipase.

.....

.....

.....

.....

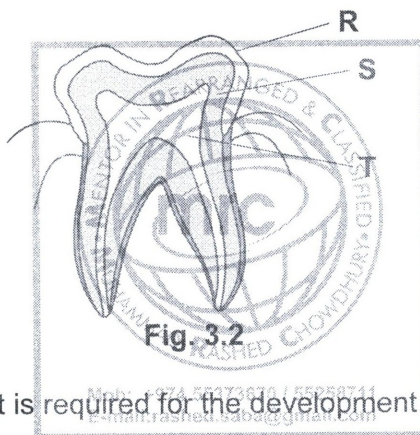
.....

.....

..... [3]

3 (c) The teeth are involved in physical digestion.

Fig. 3.2 shows a section through a tooth.



(i) Name a mineral that is required for the development of healthy teeth.

..... [1]

(ii) Name the parts labelled R, S and T as shown on Fig. 3.2.

R

S

T [3]

(iii) Describe how dental decay is caused.

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.....

.....

.....

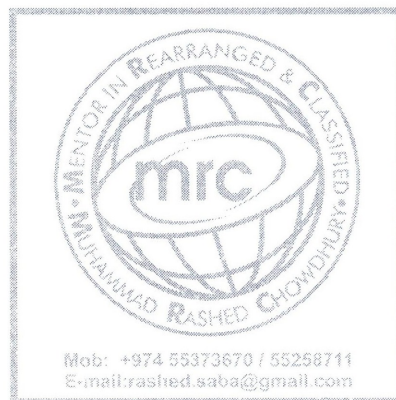
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.....

.....

..... [3]

[Total: 15]



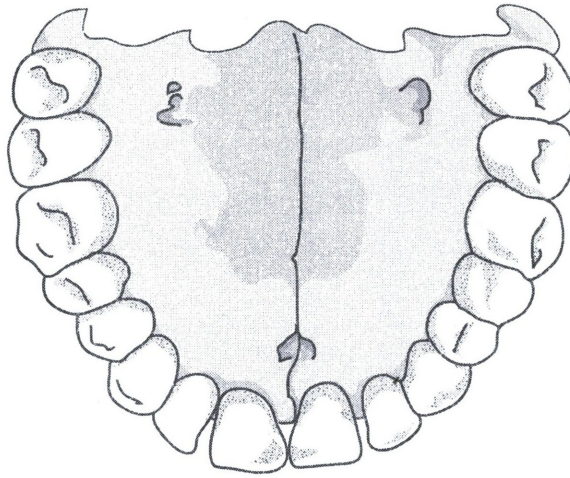


Fig. 9.1

(i) On Fig. 9.1 label with a letter **X** one tooth that is adapted for **cutting** food.

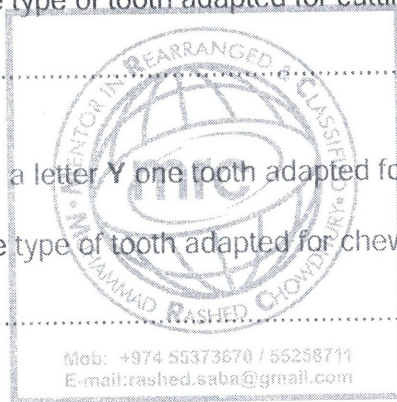
State the name of the type of tooth adapted for cutting.

..... [2]

(ii) On Fig. 9.1 label with a letter **Y** one tooth adapted for **chewing** food.

State the name of the type of tooth adapted for chewing.

..... [2]



(c) Fig. 9.2 shows a section through a human tooth.

Two of the layers of the tooth are labelled **A** and **B**.

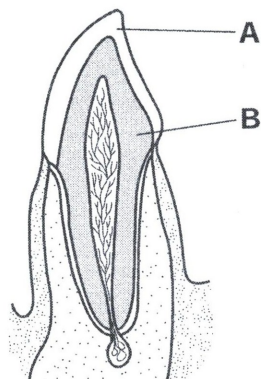


Fig. 9.2

Eating too much sugar can be the beginning of a process that ends in dental decay.

Explain how sugar is involved in decay **and** how decay affects parts **A** and **B**.

.....

.....

.....

.....

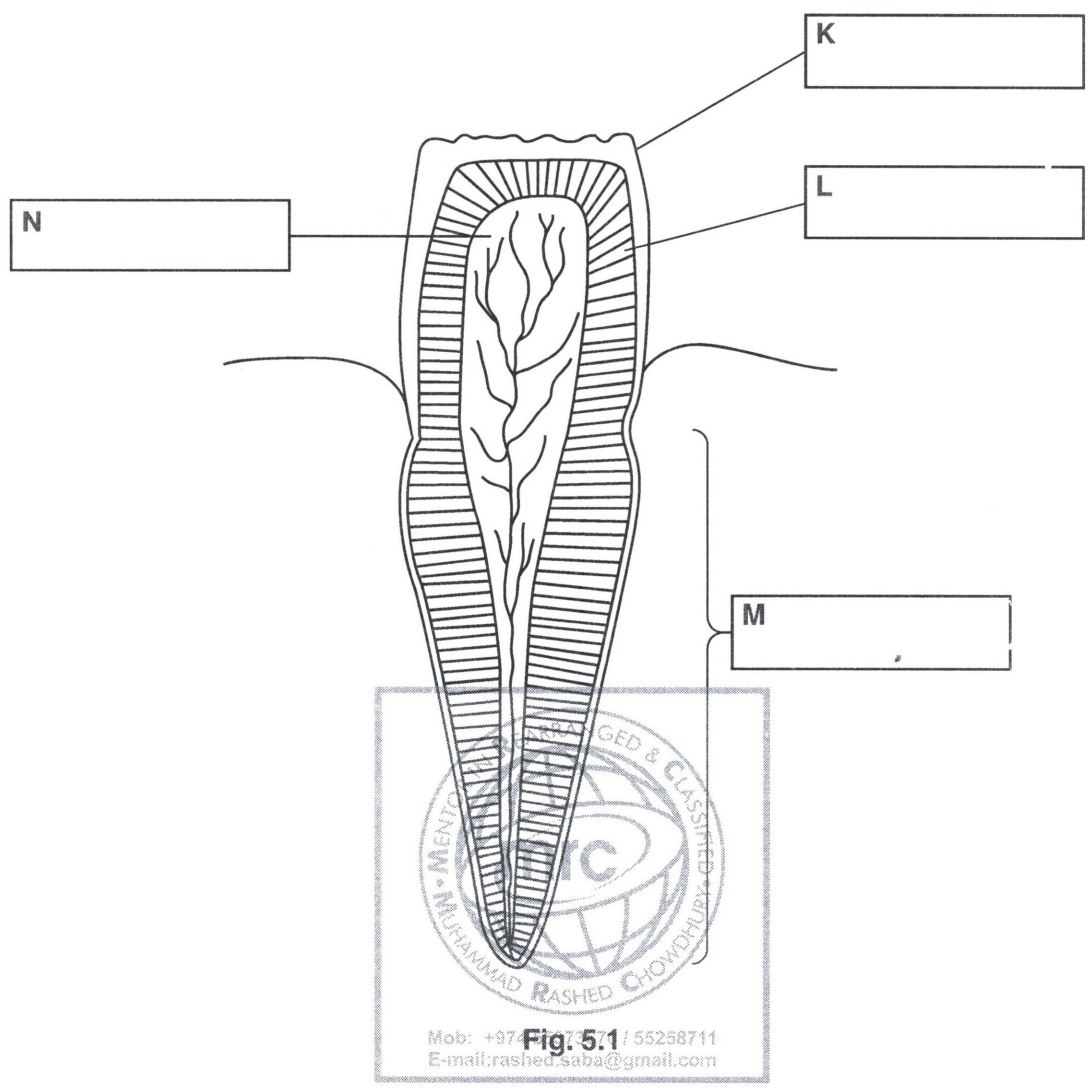
[3]

[Total: 10]



N-V-2

5 Fig. 5.1 shows the internal structure of a tooth.



(a) (i) Name the type of tooth shown in Fig. 5.1.

.....[1]

(ii) Name the parts of the tooth labelled K, L, M and N.

Write your answers in the boxes on Fig. 5.1.

[4]

6 Fig. 6.1 shows the teeth in the lower jaw of an adult human.

W

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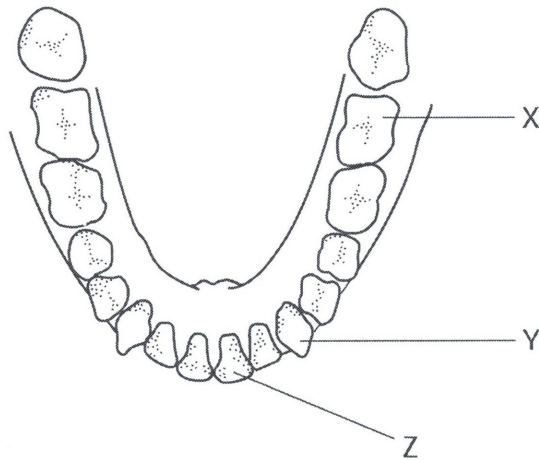


Fig. 6.1

(a) (i) Name the teeth labelled **X**, **Y** and **Z**.

X

Y

Z [3]

(ii) Describe the functions of teeth **X** and **Z**.

X

.....

Z

..... [2]

(b) Name **one** mineral and **one** vitamin that are essential for the healthy development of teeth.

mineral

vitamin [2]

7 Fig. 7.1 shows three different types of teeth from a human.

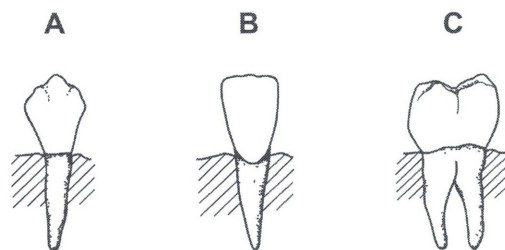


Fig. 7.1

(a) (i) Name the types of teeth labelled **A** and **B**.

A

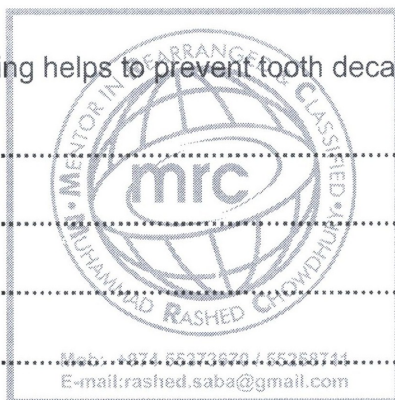
B [2]

(ii) State where in the jaw tooth type **C** is found.

..... [1]

(b) Explain how regular brushing helps to prevent tooth decay.

.....
.....
.....
.....



..... [3]

(c) Explain the roles of chewing and of enzymes in the process of digestion.

.....
.....
.....
.....

..... [4]

[Total: 10]