Drugs – 2021 IGCSE 0610

1. Nov/2021/Paper_11/No.29

Which definition of a drug is correct?

A a substance that increases the rate of a chemical reaction and is not changed by the reaction

B a protein that functions as a biological catalyst

C a substance taken into the body that modifies or affects chemical reactions in the body

D a chemical substance, produced by a gland and carried by the blood, which alters the activity of one or more specific target organs

2. Nov/2021/Paper_12/No.29

Which substance can be used to treat a bacterial infection?

A adrenaline

B antibiotics

C antigens

D insulin

3. Nov/2021/Paper_13/No.29

Which statement is the definition of the term drug?

A a substance produced in the body to stimulate hormonal reactions

B a substance produced by white blood cells to kill bacteria

C a substance taken into the body that modifies or affects chemical reactions

D a substance produced in the body which alters the activity of one or more specific target organs

4. Nov/2021/Paper_21/No.27

Which definition of a drug is correct?

A a substance that increases the rate of a chemical reaction and is not changed by the reaction

B a protein that functions as a biological catalyst

C a substance taken into the body that modifies or affects chemical reactions in the body

D a chemical substance, produced by a gland and carried by the blood, which alters the activity of one or more specific target organs

5. Nov/2021/Paper_31/No.3

Enzymes help to digest food in humans and are produced by different parts of the alimentary canal.

(a) The box on the left contains a sentence beginning.

The boxes on the right contain some sentence endings.

Draw **two** lines to make two correct sentences about enzymes.

Enzymes	are carbohydrates.
	are catalysts that slow down reactions and remain unchanged.
	are catalysts that speed up reactions and are changed.
	are catalysts that speed up reactions and remain unchanged.
	are lipids.
	are proteins.

[2]

(b) Fig. 3.1 is a diagram showing an enzyme and several different substrate molecules.

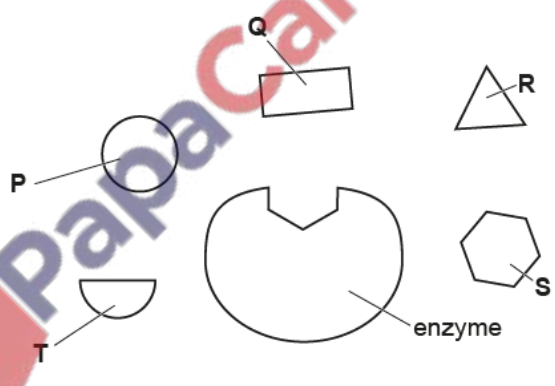

Fig. 3.1

State the letter of the molecule that is most likely to be the substrate for this enzyme.

.....

[1]

(c) Enzymes are involved in chemical digestion in humans.

Define the term chemical digestion.

.....

.....

.....

.....

..... [2]

(d) Fig. 3.2 is a graph showing the effect of changes in pH on the activity of four different enzymes, **U** to **X**.

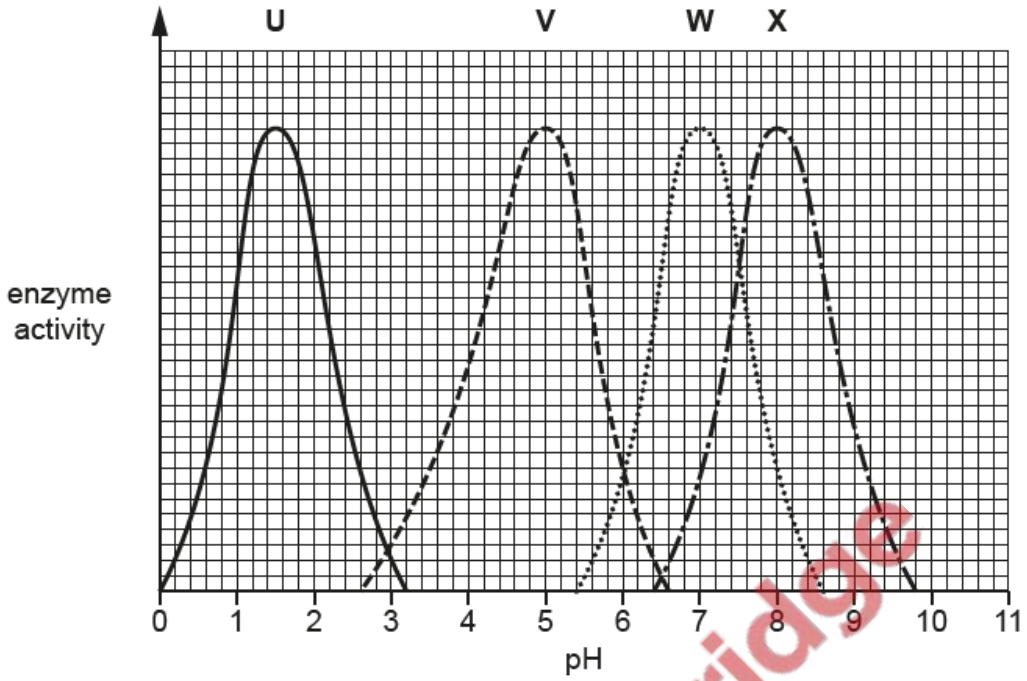

Fig. 3.2

The pH values in different parts of the alimentary canal were measured.

Table 3.1 shows the pH values found in the different parts of the alimentary canal.

(i) Use the information in Fig. 3.2 to state the letter of the enzyme that would be **most** active in each part of the alimentary canal.

Table 3.1

part of the alimentary canal	pH values	enzyme letter
duodenum	5.5	
ileum	8.0	
mouth	6.7	
stomach	1.5	

[2]

(ii) The duodenum and ileum are part of the small intestine.

State the name of **one** part of the large intestine.

..... [1]

(e) The acid in gastric juice provides an acid pH for enzymes.

(i) State **one** other function of the acid in gastric juice.

.....

..... [1]

(ii) State the name of the acid that is found in gastric juice.

..... [1]

(f) Table 3.2 shows the names of some enzymes, the substrate they act on and the products of the reaction they are involved in. It also shows the organ that secretes the enzyme.

Complete Table 3.2.

Table 3.2

enzyme	substrate	products	organ that secretes the enzyme
amylase	starch	.....	.....
.....	.....	fatty acids and glycerol	pancreas
protease	.....	amino acids	.....

[6]

[Total: 16]