



**Science Revised Syllabus
Junior Certificate
Higher Level**

**Past Exam Questions on
B Digestive System**

Q2 Part (a) 2013

Question 2

(39)

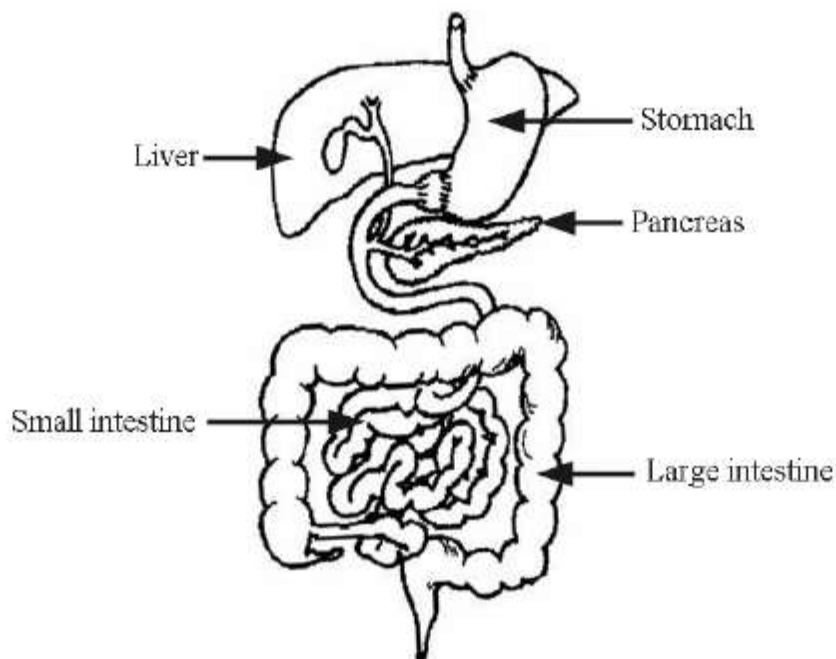
(a) Most of the food we eat requires digestion.

(i) What is meant by digestion? State clearly why we need to digest food. (6)

What? _____

Why? _____

The labelled diagram shows most of the organs involved in digestion and associated processes in our bodies.



(ii) Give one function for each of the five organs labelled in the diagram. The word 'digestion' alone will not merit marks; if it is used in an answer it must be qualified in some way. (15)

Stomach _____

Liver _____

Pancreas _____

Small intestine _____

Large intestine _____

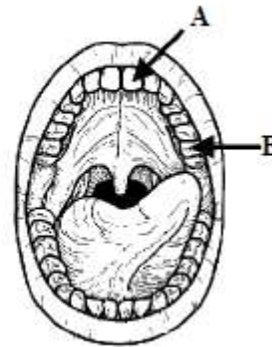
Q1 Part (f) 2011

- (f) The diagram shows the inside of a human mouth.
Give the name of tooth type A.

Name _____

What is the function of tooth type B?

Function _____



(a) The diagram of the human digestive system has been simplified for clarity.

(i) What is *digestion*? (3)

What? _____

(ii) Why is *digestion necessary*? (3)

Why? _____

(iii) Name the *organs* labelled A and B. (6)

Organ A _____

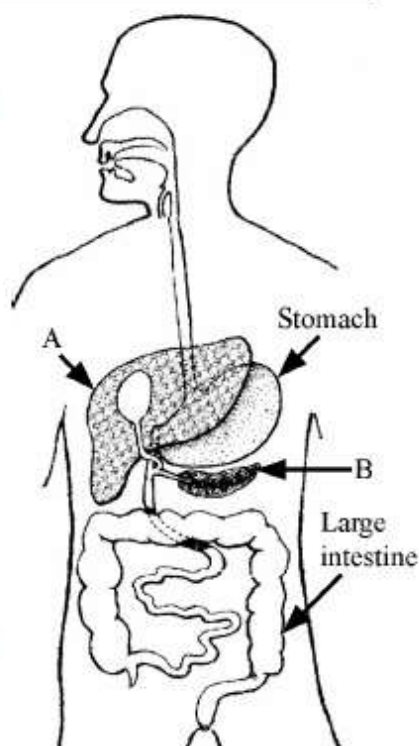
Organ B _____

(iv) Give *one function* of the stomach. (3)

Give _____

(v) Give *one function* of the large intestine. (3)

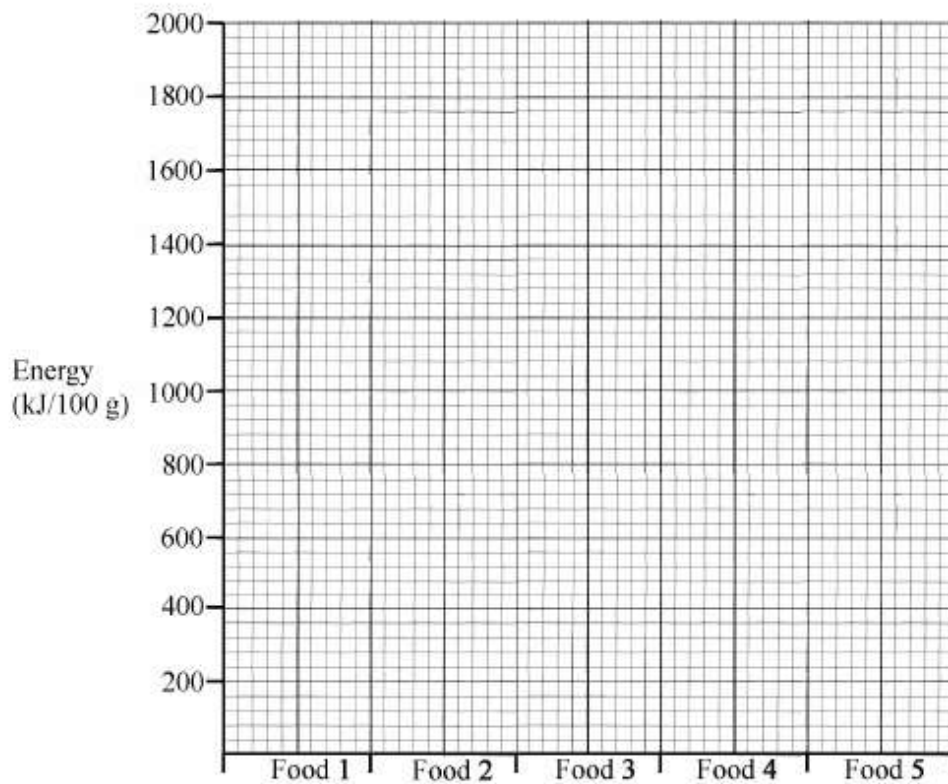
Give _____



(b) Protein, carbohydrate and fat can all be used to provide energy in our bodies. The table gives the amount of these food constituents, in grams per 100 grams for five common foods. The energy content per 100 g of each food has also been given. The energy values have been rounded off to the nearest 100 kJ.

| Food Constituent | Protein | Carbohydrate | Fat | Energy kJ/100 g |
|--------------------------|---------|--------------|------|-----------------|
| Food 1-Baked beans | 4.0 | 17.5 | 0.4 | 400 |
| Food 2-Cooked chicken | 26.2 | nil | 1.6 | 500 |
| Food 3-Eggs | 12.5 | nil | 11.2 | 600 |
| Food 4-Bread (wholemeal) | 9.0 | 45.0 | 2.2 | 1000 |
| Food 5-Cheddar cheese | 25.4 | 0.1 | 34.9 | 1700 |

- (i) Draw a *bar chart*, in the grid below, to *compare the energy content* of 100 g of foods 1-5 given in the table above. (9)



- (ii) Which *food constituent* is primarily responsible for the high energy content of cheese? What *evidence* does the table provide to support your answer? (6)

Which? _____

What? _____

- (iii) Describe how to *test a food* for the presence of *fat*. (6)

Q2 Part (b) 2008

(b) A pupil performed an experiment in a school laboratory to show the action of a *digestive enzyme* on a *food substance*.

(i) Name an *enzyme* suitable for such an experiment. (3)

(ii) Name a *food substance* on which the enzyme that you have named will act. (3)

(iii) Describe any *preparation* of the food required before the experiment is performed. If no preparation is required state why. (3)

(iv) Give the *temperature* at which the enzyme-food mix should be maintained for the experiment to work. (3)

(v) How much *time* is needed for digestion of the food in this experiment? (3)

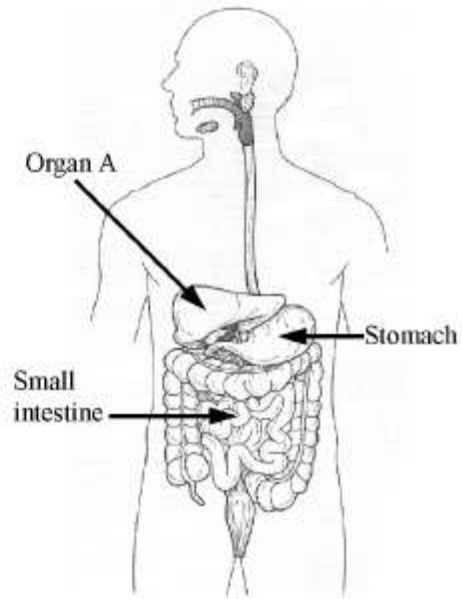
(vi) Describe a *test* to confirm that digestion has occurred. (6)

Q2 2007

(b) The diagram shows the human digestive system.

(i) Give a *digestive function* of organ A. (3)

Function _____



(ii) In the small intestine starch is broken down to maltose by amylase.

Identify the *enzyme*, and the *substrate* named in the reaction above.

(6)

Enzyme _____
Substrate _____

(iii) Give a *function* of the small intestine other than digestion. (3)

Function _____

(iv) Describe a simple laboratory experiment to show the *release of chemical energy* from food as *heat*. (6)

