



Biology Leaving Certificate Higher Level

Past Exam Questions on:

Human Nutrition / Digestive System

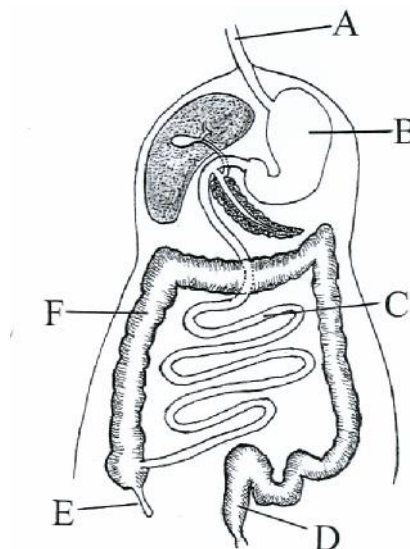


**Q15 2010**

- (b) (i) Draw a labelled diagram to show the relationship between the liver, the small intestine and the hepatic portal vein.
- (ii) Name a substance transported to the liver by the blood in the hepatic portal vein.
- (iii) Name the blood vessel that brings oxygenated blood to the liver.
- (iv) Where in the human body is the liver located in relation to the stomach?
- (v) Where is bile stored after it has been made in the liver?
- (vi) Give **one** role that the bile salts play in the digestive process.
- (vii) Give **two** further functions of the liver, other than the manufacture of bile.
- (c) Suggest a biological explanation for **each** of the following observations:
- (i) As long as a baby feeds regularly from its mother's breast (or if a breast pump is regularly used) the milk will continue to flow.
- (ii) Doctors are reluctant to prescribe antibiotics to patients suffering from common cold-like symptoms.
- (iii) A person who has suffered from constipation may be advised to increase the amount of wholegrain cereal in her/his diet.
- (iv) After a long session of heavy exercise, an athlete's urine is likely to be concentrated and low in volume.
- (v) A person's fingers may turn white when exposed to low temperature for a period of time.

**Q12 2008**

12. (a) (i) Distinguish between mechanical and chemical digestion.
- (ii) Name a structure in the human digestive system, other than teeth, which is involved in mechanical digestion. (9)
- (b) The diagram shows the human digestive system.



- (i) Name the parts A, B, C, D, E and F.
- (ii) Describe **two** functions of bile in relation to digestion.
- (iii) Answer the following in relation to a lipase:
  1. Where is it secreted?
  2. Where does it act?
  3. What is the approximate pH at its site of action?

(27)

- (c)
  - (i) What are symbiotic bacteria?
  - (ii) Give **two** activities of symbiotic bacteria in the human digestive system.
  - (iii) Name the part(s) of the digestive system in which the following are absorbed into the blood.
    1. the products of digestion,
    2. water.
  - (iv) Name a process involved in the passage of the products of digestion into the blood.
  - (v) Explain how the structure that you have named in (iii) 1. is adapted for the absorption of the products of digestion.

(24)

**Q5 2006**

Study the diagram and then answer the following questions.

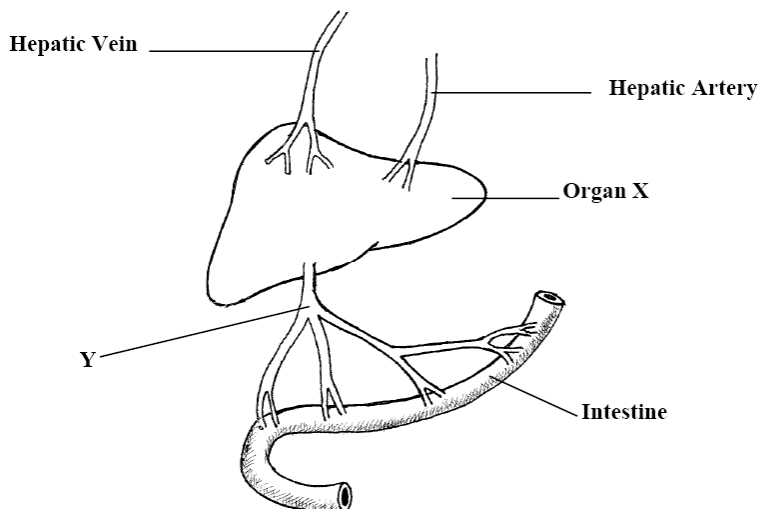
- (a) Name X and Y

X ..... Y.....

- (b) Place arrows on Y, the hepatic artery and the hepatic vein to indicate the direction of blood flow.

- (c) State the precise location of organ X in the human body .....

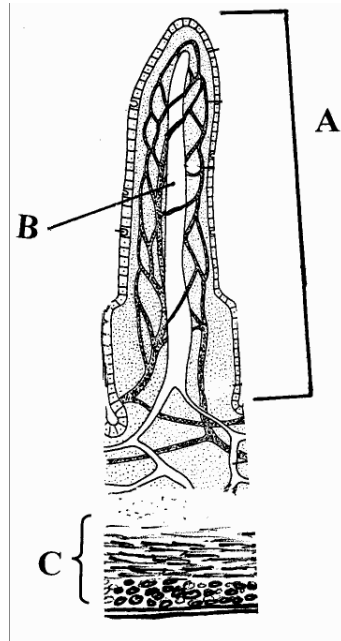
- (f) State a role that organ X plays in the digestive process .....



**Q 6 2005**

**6.** The diagram shows part of a section of the human small intestine.

(a) Name A, B, C.



(a) Name A, B, C.

A

B

C

(b) State **two** ways in which A is adapted for the absorption of soluble foods.

1.

2.

(c) Name a process by which soluble foods are absorbed into the blood from the small intestine.

(d) What type of food is mainly absorbed into B?