

7. Human nutrition

7.5 Absorption

Paper 4

Question Paper

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Questions are applicable for extended candidates only

- 1 (b) Fig. 6.1 is a diagram of a villus.

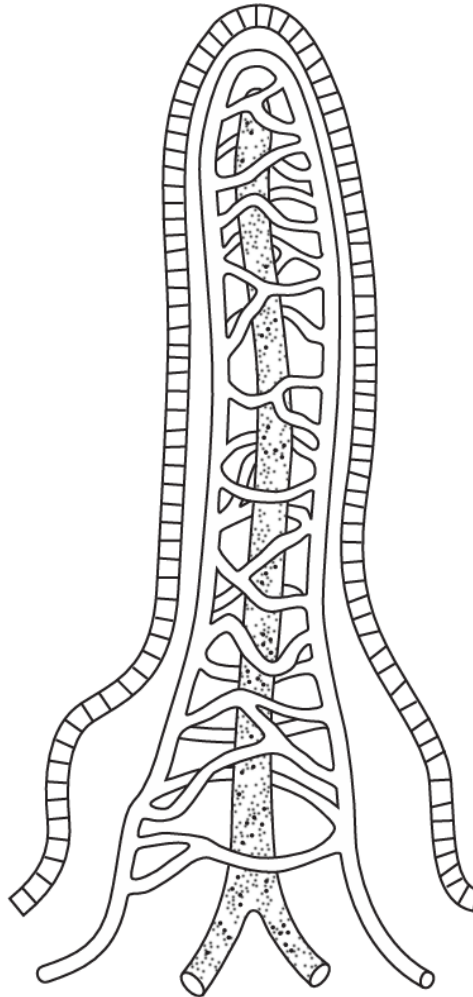


Fig. 6.1

(i) Draw labels and label lines on Fig. 6.1 to identify a capillary **and** a lacteal. [1]

(ii) State the part of the digestive system where villi are located.

..... [1]

(iii) State the function of the lacteal.

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..... [1]

(c) Describe the pathway taken by the products of protein digestion from the villi to the liver.

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..... [2]

- 2 (a) The small intestine is lined with many villi and is adapted to absorb glucose.

Fig. 2.1 shows two villi from the lining of the small intestine.

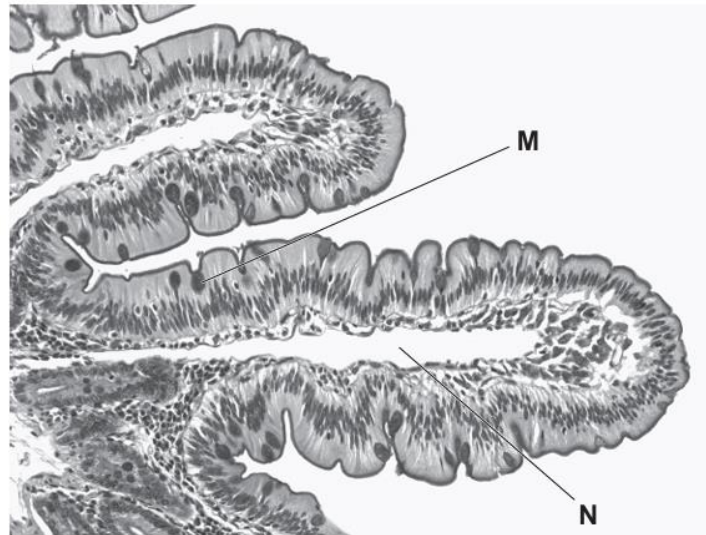


Fig. 2.1

- (i) State the name of structure **N** in Fig. 2.1.

..... [1]

- (ii) Cell **M** in Fig. 2.1 secretes mucus.

State the name of cell **M**.

..... [1]

- (iii) State **one** other place in the body where mucus secreting cells are found.

..... [1]

(iv) Describe and explain how the structure of a villus is adapted for its function.

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..... [4]

(b) State the name of the main blood vessel that takes blood from the small intestine to the liver.

..... [1]

3

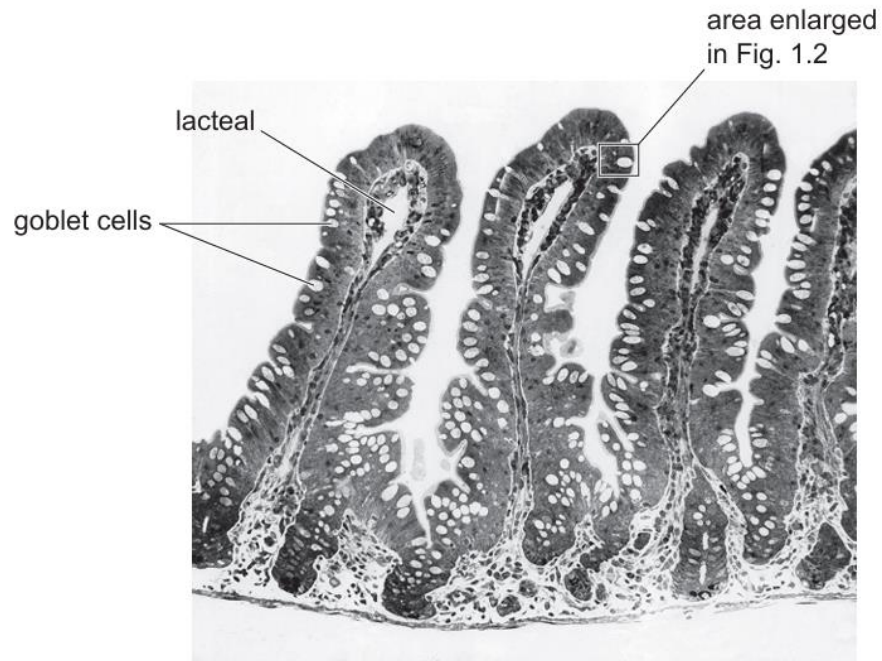


Fig. 1.1

(d) Fig. 1.1 shows a lacteal in the centre of each villus.

Describe the roles of lacteals.

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..... [2]

4 (d) The epithelial cells of the small intestine have many microvilli.

State the role of the microvilli.

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..... [2]