

Higher Combined version — Higher Tier (★) included; Separate-only (◆) removed.

**Q1. State the enzyme, substrate and products for THREE types of digestion.**

[3 marks]

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**Q2. Explain the role of bile in fat digestion.**

[2 marks]

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**Q3. Describe how villi are adapted for absorption in the small intestine.**

[3 marks]

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**Total: 8 marks**

**Q1 (3 marks)**

*State the enzyme, substrate and products for THREE types of digestion.*

- Amylase: starch → sugars [1]
- Protease: protein → amino acids [1]
- Lipase: fats → fatty acids + glycerol [1]

**Q2 (2 marks)**

*Explain the role of bile in fat digestion.*

- Bile emulsifies fats — breaks into smaller droplets [1]
- Increases surface area for lipase → faster digestion [1]

**Q3 (3 marks)**

*Describe how villi are adapted for absorption in the small intestine.*

- Large surface area — many villi with microvilli [1]
- Thin walls (one cell thick) — short diffusion distance [1]
- Dense capillary network — absorbs and transports nutrients rapidly [1]