

Section B [32 marks]

Answer any two questions on the separate answer sheets provided.

Your answers should be illustrated by large, clearly labelled diagrams, where appropriate.

- 9 (a) Describe the regulation of blood glucose concentration in the human body. [8]
(b) Explain the role of the kidney in osmoregulation. [8]
- 10 (a) Describe the formation of recombinant DNA. [8]
(b) Discuss the potential hazards of gene technology with reference to crop plants. [8]
- 11 (a) Describe *oxidative phosphorylation* and distinguish it from *photophosphorylation*. [8]
(b) Explain the effects of limiting factors on the rate of photosynthesis. [8]
- 12 (a) Describe how flowering is induced in short-day plants. [8]
(b) Discuss the ethical issues raised by abortion. [8]