

Multiple-choice test

Chapter 14: Homeostasis

Click on the correct answer to each question.

- 1 How does shivering help to maintain body temperature?
 - A It generates heat to raise the temperature of the blood.
 - B It makes the blood vessels move upwards in the skin.
 - C It produces sweat that evaporates to cool the body.
 - D It provides extra insulation when you feel cold.
- 2 Why is it important to maintain a fairly constant body temperature?
 - A to control the rate of sweat production
 - B to make sure that metabolic reactions can occur at a suitable rate
 - C to prevent infection with bacteria
 - D to reduce the amount of glucose used in respiration
- 3 How does sweating cool the body?
 - A Sweat contains waste products such as salt and urea.
 - B The cold sweat lying on the skin makes you feel cooler.
 - C The sweat traps a layer of cool air next to the skin.
 - D Water in the sweat absorbs heat from the skin as it evaporates.
- S 4 Which hormone is secreted when blood glucose concentration rises too high?
 - A adrenaline
 - B glucagon
 - C glycogen
 - D insulin
- 5 Where are the receptor cells that detect the concentration of glucose in the blood?
 - A hypothalamus
 - B kidneys
 - C liver
 - D pancreas

- S**
- 6** What happens to the blood vessels in the skin when body temperature rises too high?
- A** Arterioles supplying surface capillaries constrict.
 - B** Arterioles supplying surface capillaries dilate.
 - C** Capillaries move deeper into the skin.
 - D** Capillaries move nearer to the surface of the skin.
- 7** What effect does glucagon have?
- A** It increases the concentration of glucose in the blood.
 - B** It decreases the concentration of glucose in the blood.
 - C** It increases the volume of urine produced by the kidneys.
 - D** It decreases the volume of urine produced by the kidneys.
- 8** What causes type I diabetes?
- A** destruction of the cells that produce insulin
 - B** infection with a bacterium
 - C** lack of protein in the diet
 - D** uncontrollable division of body cells
- 9** Which is a symptom of type 1 diabetes?
- A** a high body temperature
 - B** the presence of glucose in the urine
 - C** the production of only very small volumes of urine
 - D** vasoconstriction
- 10** What is negative feedback?
- A** a mechanism for keeping a factor at a constant level
 - B** the interaction between the hypothalamus and the pancreas
 - C** the maintenance of a constant internal environment
 - D** the reversal of nerve impulses between receptors and effectors