

**YEAR 11**

Homeostasis and Hormones

Three parts that get harder: a warm-up, where you should be now, then a stretch. Write the letter of the right option, or a number where one is asked for. The stretch includes Higher-tier content.

Name: _____

Date: _____

Score: _____

A. Warm-up

Hormones are chemical messages carried in the blood.

- 1 Homeostasis means
 - (a) growing in size
 - (b) keeping internal conditions constant
 - (c) fighting infection
 - (d) making new cells
- 2 Which organ produces insulin?
 - (a) The liver
 - (b) The kidney
 - (c) The pancreas
 - (d) The thyroid
- 3 Hormones travel around the body in
 - (a) nerves
 - (b) the lymph only
 - (c) the air we breathe
 - (d) the blood

- 4 Which gland is often called the master gland?
- (a) The pituitary gland
 - (b) The pancreas
 - (c) The adrenal gland
 - (d) The thyroid gland
-

- 5 Which hormone is produced by the testes?
- (a) Oestrogen
 - (b) Testosterone
 - (c) Insulin
 - (d) Adrenaline
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B. Where you should be now

Blood glucose control, diabetes, and the nervous system.

- 6 When blood glucose rises after a meal, the pancreas releases
- (a) glucagon
 - (b) adrenaline
 - (c) insulin
 - (d) thyroxine
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- 7 Insulin causes
- (a) the liver to release glucose
 - (b) the heart to beat faster
 - (c) the kidneys to make urine
 - (d) glucose to move into cells, and the liver to store it as glycogen
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- 8 Type 1 diabetes is caused by
- (a) the pancreas producing too little insulin
 - (b) eating too much salt
 - (c) cells ignoring adrenaline
 - (d) a virus in the blood
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- 9 Type 2 diabetes is when
- (a) the pancreas makes no insulin at birth
 - (b) body cells no longer respond properly to insulin
 - (c) blood glucose is always too low
 - (d) the liver stops working
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- 10 Adrenaline prepares the body for
- (a) sleep
 - (b) digestion
 - (c) fight or flight
 - (d) growth
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- 11 A reflex action is
- (a) slow and carefully planned
 - (b) learned by practice
 - (c) controlled by hormones only
 - (d) fast and automatic, without conscious thought
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C. Stretch

Higher tier: glucagon, and the details of nerves and hormones.

- 12 When blood glucose falls too low, the pancreas releases
- (a) glucagon
 - (b) insulin
 - (c) testosterone
 - (d) oestrogen
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- 13 Glucagon causes
- (a) glucose to be stored as fat
 - (b) glycogen in the liver to be converted back into glucose
 - (c) the pancreas to stop working
 - (d) cells to take in glucose
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- 14 In a reflex arc, the order is
- (a) effector, motor neurone, relay neurone, sensory neurone, receptor
 - (b) receptor, motor neurone, effector, sensory neurone
 - (c) receptor, sensory neurone, relay neurone, motor neurone, effector
 - (d) brain, receptor, effector
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- 15 The small gap between two neurones is called a
- (a) neurone
 - (b) receptor
 - (c) nucleus
 - (d) synapse
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- 16 Which hormone causes an egg to mature in an ovary?
- (a) FSH
 - (b) Testosterone
 - (c) Insulin
 - (d) Adrenaline
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