

B3 – Homeostasis Quiz

1. Which organ in the body monitors the concentration of glucose (sugar) in the blood?
2. Describe, as fully as you can, what happens to amino acids that cannot be stored in the body.
3. Describe the role of blood vessels in the control of body temperature.
4. Suggest why an athlete overheats in humid conditions when the temperature is above 18°C.
5. Explain why a man's urine contains a higher concentration of mineral ions and urea on a hot day than on a cold day.
6. Name two substances found in the urine of a healthy person.
7. Describe what happens to glucose in the blood of a healthy person when the blood enters the kidney.
8. Explain why the urine of a diabetic person may contain glucose.
9. What process brings about shivering?
10. Explain how shivering increases body temperature.
11. Explain why protein is not found in the urine of a healthy person.
12. Which part of the brain monitors the fall in core body temperature?

13. How does this the thermoregulatory centre inside the brain detect the fall in core body temperature?
14. Explain why someone who has been drinking alcohol is more likely to die of hypothermia.
15. Explain how dialysis treatment restores the concentrations of dissolved substances in the blood to normal levels.
16. Describe the parts played by the brain and the skin in monitoring body temperature
17. Explain why the amount of insulin injected by diabetics needs to be carefully controlled.
18. What features of blood make someone's blood type group **O**?
19. Describe three different ways by which most mammals are able to maintain a constant body temperature when the temperature of the environment falls.
20. Where is insulin produced?
21. Explain the role of insulin in controlling blood sugar levels.
22. What is the job of the circulatory system?
23. Explain, using insulin as an example, what is meant by negative feedback.
24. Explain why the concentration of urea in the liquid in the bladder is much greater than the concentration of urea in the liquid that is filtered in the kidneys.

25. Explain, as fully as you can, why respiration has to take place more rapidly during exercise.

26. Explain fully what would happen if somebody ate some glucose tablets.