

Combined Miscellaneous 2

- 1) Describe the light dependent reaction? (4)
- 2) What are the biological properties of water and why are they useful? (6)
- 3) The process of ultrafiltration requires high blood pressure. How is this created? (2)
- 4) What are the different layers of the glomerular filtration barrier? (3)
- 5) How do antibodies work? (3)
- 6) Describe the phagocytosis process? (3)
- 7) How are sugars transported in plants? (3)
- 8) How is the xylem adapted for the transport of water? (3)
- 9) Why is there a net gain of 2 ATP in glycolysis? (2)
- 10) Describe the process of countercurrent flow in bony fish and explain its advantages? (3)
- 11) Define biodiversity? (2)
- 12) Explain the mechanism of action of a non-competitive inhibitor? (3)
- 13) Describe the structure of haemoglobin? (3)
- 14) What is the Chi-squared test and what is its significance? (2)
- 15) How is the resting membrane potential of neurones set up and maintained? (3)
- 16) A mutation results in a stop codon being inserted earlier in the chain. What would be the likely effects and why? (2)
- 17) Why is the genetic code said to be universal, degenerate and non-overlapping? (3)
- 18) Distinguish between missense and nonsense mutations? (2)
- 19) Distinguish between point and frame-shift mutations? (2)
- 20) What are introns and what do they do? (2)
- 21) What is a chromosomal translocation? (2)
- 22) What is the role of accessory pigments in photosynthesis? (1)

- 23) Describe the Krebs cycle? (4)
- 24) Why does FADH release less energy per molecule than NADH when oxidised? (2)
- 25) A painkiller blocks the receptors on the post-synaptic membrane. Explain how this enables it to be effective? (2)
- 26) Distinguish between how viruses and bacteria are attacked differently by the immune system? (4)
- 27) What is the role of the vasa recta? (2)
- 28) What are the differences between sensory and motor neurones? (3)
- 29) Why are denitrifying bacteria such as pseudomonas anaerobic? (2)
- 30) Using a labelled drawing, compare triglycerides and phospholipids? (3)
- 31) Describe the test for proteins and lipids? (3)
- 32) What is the definition of a species? (1)

Total: /85