

APOLLO

Transport SL

Biology

First assessment 2025

7 questions | mark schemes

Mark-scheme answers

Biology SL | Paper 1A | May 2025 TZ1 | Q15 | 1 marks

15. D

Biology SL | Paper 1A | May 2025 TZ2 | Q14 | 1 marks

14. C

7.	a	a. each/one chromosome consists of (two genetically) identical chromatids OR sister chromatids are (genetically) identical OR replication (in interphase/S phase) produces two (genetically) identical DNA strands OR diploid cells contain two (genetically) identical copies of DNA; b. (DNA) condense/coil (in prophase) to form chromosomes OR (chromosomes/chromatids) attach to spindle fibres (in metaphase) OR (chromosomes/chromatids) align/place in the center/equator of the cell (in metaphase); c. microtubules contract/shorten OR (chromatids/chromosomes) are separated/pulled apart (in anaphase); d. (chromatids/chromosomes) move to/reach poles/ends of cell (in telophase) OR one (copy of each identical) chromatid/chromosome in each new/daughter cell;		4 max
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Question			Answers	Notes	Total
7.	b		a. <u>RNA polymerase</u> unwinds/unzips DNA / breaks hydrogen bonds; b. (DNA) template/antisense strand is used; c. (free) RNA nucleotides added (to DNA); d. (by) <u>complementary</u> base pairing / A-U AND G-C; e. RNA polymerase joins/attaches (RNA) nucleotides (on new mRNA strand)/forms (phosphodiester) bonds; f. RNA polymerase/mRNA strand detaches/DNA strands reattach OR RNA polymerase reach the stop codon;		4 max

Question			Answers	Notes	Total
7.	c		a. arteries carry blood at high pressure AND veins carry blood at low pressure; Arteries b. narrow/small lumen to maintain high (blood) pressure; c. thick/outer layer/wall for strength/protection/support/withstands high pressure OR collagen in outer layer/wall for strength/ support/protection; d. muscle tissue to withstand high (blood) pressure/control diameter; e. elastic tissue/fibers that stretch AND recoil/spring back OR elastic tissue/fibers withstand/maintain (high) pressure/smooth out blood flow/allow blood to flow in pulses; Veins f. contain (pocket) valves to prevent backflow (of blood); g. thin/flexible walls that can be squeezed/flattened/compressed by (skeletal) muscle OR compression of thin/flexible walls assists flow/movement of blood; h. large lumen so less resistance to blood flow; Common i. smooth endothelium/lining to reduce friction/increase blood flow;		7 max

Question	Answers	Notes	Total
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Mark-scheme answers

Biology SL | Paper 1A | Nov 2025 TZ1 | Q15 | 1 marks

15. A

Biology SL | Paper 1A | Nov 2025 TZ3 | Q14 | 1 marks

14. D

Biology SL | Paper 1A | Nov 2025 TZ3 | Q15 | 1 marks

15. A

Biology SL | Paper 1A | Specimen 2025 | Q18 | 1 marks

18. D