

APOLLO

Organelles and compartmentalization

HL

Biology

First assessment 2025

4 questions | mark schemes

Mark-scheme answers

Biology HL | Paper 1A | Nov 2025 TZ1 | Q13 | 1 marks

13. B

Biology HL | Paper 1A | Nov 2025 TZ1 | Q16 | 1 marks

16. C

Biology HL | Paper 1A | Nov 2025 TZ3 | Q16 | 1 marks

16. B

2.	a		to track their movement / make them detectable		1
2.	b	i	rER		1
2.	b	ii	a. production of polypeptides/proteins/translation; b. (production of proteins that are) insoluble/bound for export/for insertion in the membrane;		2
2.	b	iii	high levels of radioactive amino acids appear first in X and later in Golgi		1
2.	c		a. water diffuses (through the plasma membrane) via aquaporins OR aquaporins allow water movement/secretion of fluid; b. the rate of water transport by aquaporins is not very high (so many are required);		1
2.	d		a. the sequence of amino acids determines the tertiary structure of a protein; b. tertiary structure is the folding of a polypeptide chain; c. R groups of amino acids can be polar or non-polar; d. the protein folds due to interaction with water/the aqueous environment; e. (the protein folds due to) R group interactions; f. example of R group interaction H/covalent/ionic bond/disulphide bridges;		4

Question	Answers	Notes	Total
----------	---------	-------	-------