



CHEMISTRY ONLINE
— **TUITION** —

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BIOLOGY

FOUNDATIONS IN BIOLOGY

Level & Board	OCR (A-LEVEL)
TOPIC:	CELL STRUCTURE
PAPER TYPE:	SOLUTION - 4
TOTAL QUESTIONS	07
TOTAL MARKS	/31

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Cell Structure - 4

1.

(a) C / ribosomes

(b)

A: rough endoplasmic reticulum

D: Golgi apparatus

E: secretory vesicle

F: mitochondrion

(c) C/A then D then E

2.

(a) C

3.

(a) C

4.

(a)

Transport vesicle from RER

Modification / processing / folding

In / at Golgi body / apparatus

Packaged into secretory vesicle

Vesicles move along the cytoskeleton

Vesicle fuses with, cell surface / plasma membrane

Secretion occurs by exocytosis

5.

(a)

(m)RNA transported out of nucleus

(m)RNA transported to / associates with ribosome

Translation / protein synthesis, occurs at ribosome

(t)RNA brings specific amino acids or (t)RNA described

Peptide bonds form between adjacent amino acids or peptide bonds described

Polypeptide / protein processed through Golgi apparatus

6.

(a) C

7.

(a)

3 bases / triplet code for 1 specific amino acid

Sequence of bases / triplets determines the sequence of amino acids / primary structure

Code non-overlapping

AVP

(b)

Mechanical strength to cells

Cell support / stability / maintains shape

Movement of named molecules / vesicles / organelles within cell

OR

Holding organelles in position

Formation / movement of cilia / flagella

(c)

Movement of mRNA from nucleus to ribosome

Movement of polypeptides through the rER

Movement of vesicles from rER to Golgi

Movement of vesicles between cisternae of Golgi cis to trans face

Movement of secretory vesicles from Golgi to cell surface membrane

8.

(a)

Attach to cytoskeleton

Moved by protein motors / dynein

9.

(a)

Cell division / cytokinesis

Idea of cell movement

(b) Idea of maintaining cell shape / structure

(c)

Binds to actin / cytoskeleton

Idea that actin might not function correctly

10.

(a)

Using microtubules / tubulin / motor proteins

(b)

Goblet cells secrete / release / make / produce / form mucus

Mucus traps pathogens / microorganisms

Ref. phagocytes / neutrophils / macrophages / lysozyme

Cilia / ciliated cells / ciliated epithelium, sweep / brush / waft / move / AW, mucus

Cytoskeleton / microtubules / tubulin moves / makes up the cilia



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