

# *Thebiotutor*

AS Biology OCR

Unit F211: Cells, Exchange & Transport

Module 1.3 Cell Division, Diversity and  
Organisation

Answers

1. (i) growth of cell / growth of organelles / increase number of organelles / synthesis of proteins;

**DO NOT ACCEPT** 'growth' unqualified  
**DO NOT ACCEPT** refs to DNA replication  
**IGNORE** ref. to respiration  
**ACCEPT** named steps in protein synthesis

1

- (ii) mutation / faulty DNA produced / error in copying;  
 daughter cells will not receive identical genetic information;  
 proteins / (daughter) cells, not made / do not function;

**ACCEPT** 'daughter cells will not be clones'  
**ACCEPT** 'proteins / daughter cells function differently'

2

[3]

2. growth (of tissue / organism);  
 replace (cells) / repair (tissues);  
asexual reproduction/cloning / producing genetically identical cells;  
 maintain chromosome number in all cells;

*initially mark first response on each line  
 if not all lines used, go back and credit further  
 correct points*  
**DO NOT ACCEPT** growth of cells  
**DO NOT ACCEPT** repair of cells  
**ACCEPT** ref to maintain, haploid / diploid, number

[3]

3. Q, T, P, R;;;

*Allocate marks for the following pairs:*  
 S – Q      Q – T      T – P      P – R

[4]

4. *ignore refs to early and late stages*  
**NOT** *ref to I and II*

1

(i) telophase;

(ii) metaphase;

1

(iii) prophase;

1

(iv) anaphase;

1

(v) anaphase;

1

[5]

5. flagellum for movement;  
 chromosomes / DNA, in haploid nucleus / AW, for fertilising egg cell;  
 head / cap / acrosome, shaped for penetrating egg cell (membrane);  
 (many) mitochondria for energy / ATP, for movement;

max 3

[3]