

Mark Scheme

Analysis and Integration

Name: _____

Class: _____

Date: _____

Time:

27 min.

Marks:

25 marks

Comments:

EXAM PAPERS PRACTICE

Mark schemes

Q1.

- (a) (Idea of) minimum distance between two objects for them to appear as separate objects;
Ignore 'the ability to distinguish 2 points' 1
- (b) 1. ° (Electron microscopes) use (a beam of) electrons;
 2. ° (Electrons) have a shorter wavelength/higher frequency;
Must be a comparative statement
Only allow TEM/SEM has a shorter wavelength if MP1 has been awarded 2
- (c) 2.000; 1
- (d) (Electro) magnet; 1
- (e) 1. ° (Optical microscope because) electron microscope images not colour/optical microscopes images are in colour
 OR
 membrane properties altered in TEM/SEM
 OR
 Specimen needs to be alive;
 2. ° (TEM because) shows internal structure of organelles/optical microscope magnification/resolution not high enough
 OR
 TEM has high enough magnification or sufficient resolution;
 3. ° (Optical microscope because) electron microscopes cannot view living cells;
 4. ° (SEM because) shows surface structure/gives 3D image; 4
- (f) °(Structures that are) not part of the natural specimen/produced as a result of specimen preparation; 1
- [10]**