	3. Comparison of mode = one mark i.e. Adult (fibres) peak/most common/frequent/mode at 50 (µm) **and** young (fibres) peak/most common/frequent/mode at 30 (µm);		3. Accept: adult (fibres) peaks at higher diameter or young (fibres) peak/most frequent at lower diameter. 3. Reject: reference to mean/average.

Question	Marking Guidance	Mark	Comments
04.1	1. Osmosis does not occur; 2. Chloroplast/organelle does not burst/lyse/shrivel/shrink;	2	1. Accept: osmosis would occur if water potentials were not the same. 1 and 2, Accept: correct reference to osmotic lysis for **2 marks**. 2. Accept: chloroplast would burst/lyse/shrivel/shrink if water potentials were not the same. 2. Reject: 'cell bursts/shrivels' 2. Ignore: damage to chloroplasts on its own is not enough for a mark. 2. Reject: becomes turgid/flaccid.
04.2	1. To show light does not affect DCPIP; 2. To show chloroplasts are required;	2	Ignore: comparison with other tubes.
04.3	1. Reduction of DCPIP by electrons; 2. (From) chlorophyll/light dependent reaction;	2	1. Accept: hydrogen/H for electrons but not protons/hydrogen ions/H^+ on their own. 2. Accept: from chloroplasts/photosystems/water.

04.4	Provides a standard / reference point OR Can compare different chemicals/weed-killers OR Can compare different concentrations of chemicals/weed-killers;	1	Accept: decolourises quicker than 100% **or** saves time waiting for complete decolourisation. Note: comparisons must be qualified. Accept: find the most effective weed-killer **or** the most effective concentration. Accept: answers relating to cost effectiveness.

04.5	1. Less/no ATP produced; 2. Less/no reduced NADP produced; 3. Less/no GP reduced/converted to TP;	2 max	2, Accept: less/no NADPH/$NADPH_2$/NADPH + H