

**Question 1**

Question	Answers		Mark
01.1	magnification = $\frac{\text{size of image}}{\text{size of real object}}$	Allow any correct rearrangement.	1
01.2	$\frac{14.8}{400}$	An answer of 37 (μm) with no working shown scores 3 marks.	1
	= 0.037 (mm)		1
	$0.037 \times 1000 = 37 (\mu\text{m})$	An answer of 0.037 (mm) with no working shown scores 2 marks.	1
Total			4

**Question 2**

Question		Mark
02.1	Level 3: There is a clear description that includes preparation of a microscope slide and use of the microscope. For six marks, a risk assessment should be included.	5-6
	Level 2: There is a simple description that includes preparation of a microscope slide and use of the microscope.	3-4
	Level 1: There are simple statements that give a brief description. Two marks can be given for any two correct steps from the method.	1-2
	No relevant content.	0
02.2	Indicative content: <ul style="list-style-type: none">• Collect cheek cells using a sterile swab inside the mouth.• Transfer the cells to the microscope slide by rubbing the swab onto the centre of the slide.• Apply a stain using a dropper and carefully place a coverslip over the sample. Blot excess stain.• Place the prepared slide onto the stage of the microscope and secure with the clips.• Turn on the light and turn the objective lens to the lowest magnification.• Turn the coarse adjustment knob until the cells are come into focus.• Use the fine adjustment knob to bring the cells into clear focus.• Turn to a higher power objective lens and repeat the process at higher magnifications.• Ensure safety goggles are worn when applying stain to the slide.• Wash hands after handling specimens.• Take care to avoid breaking microscope slides and cover slips.	
Total		6