

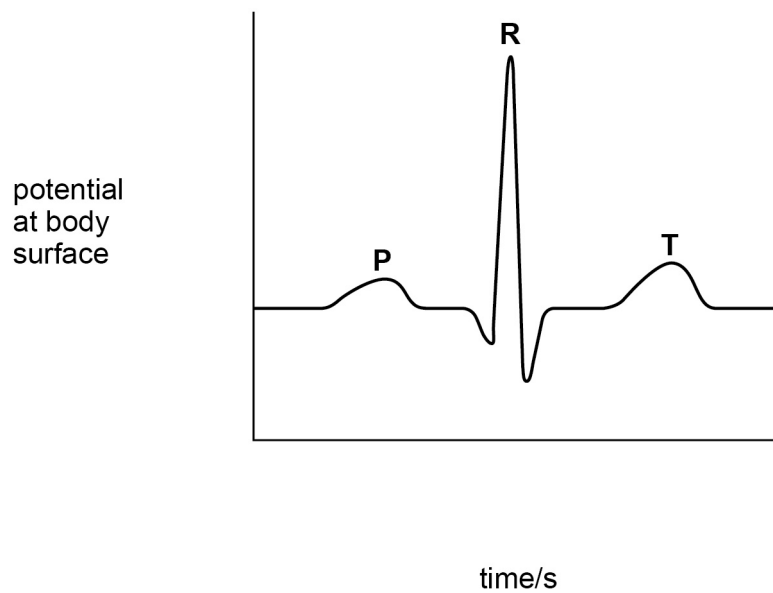
0	1	.	1
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Figure 2 shows an ECG trace for a healthy person.

Complete **Figure 2** by adding a suitable unit and scale to the potential axis, and a suitable scale to the time axis.

[2 marks]

Figure 2



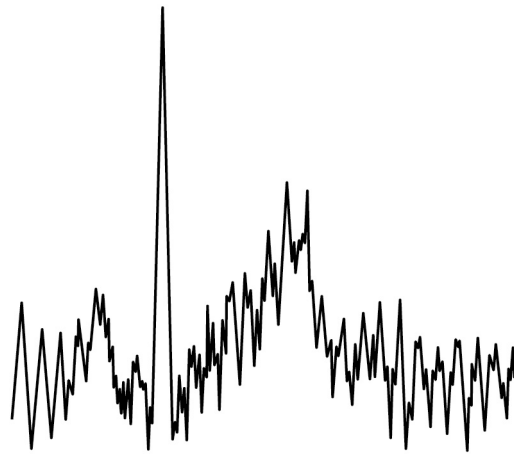
Turn over ►



0 1 . 2

Figure 3 shows a faulty ECG trace which was obtained for another healthy person.

Figure 3



Discuss **three** possible reasons why this faulty trace was obtained.

[3 marks]

5

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	answer at edge of head.✓		
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Total			9
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Question	Answers	Additional Comments/Guidelines	Mark
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01.1	potential axis: unit mV and suitable labelling of 0 and 1 for scale ✓ time axis suitable use of numbers from 0 to 0.6 / 1 ✓		2
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01.2	Possible answers to include: electrodes are not non-reactive ✓ electrodes are not securely taped in place ✓ the patient is not relaxed or does not remain still ✓ the amplifier is not low noise ✓ the amplifier has damaged shielded leads / interference from other AC sources ✓	Any 3 points with reason and some extension to explain. Be aware of the section 3.1 in the instructions to examiners. If more than 3 answers given remember 'right + wrong = wrong'	3
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Total			5
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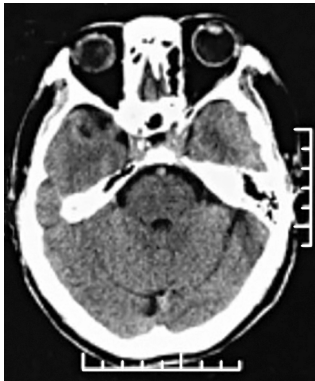
0 2

Figure 2 shows scanned images of three different human heads. Each image used **one** of the following scanning techniques:

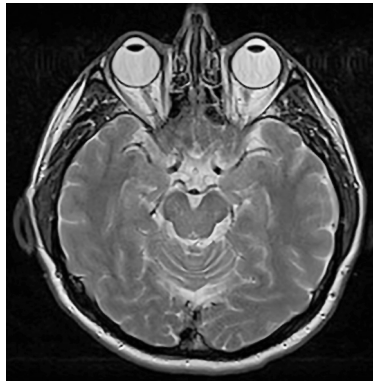
- magnetic resonance (MR)
- CT
- ultrasound
- PET.

Figure 2

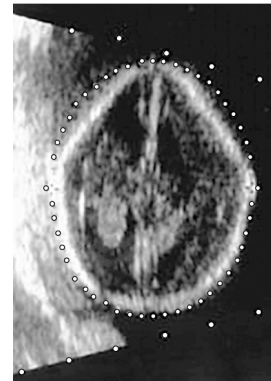
A



B



C



Identify the scanning technique used for each image.

Go on to explain how the features of each image enabled you to identify the type of scan.

[4 marks]

A: Scanning technique _____

Explanation _____

B: Scanning technique _____

Explanation _____

C: Scanning technique _____

Explanation _____



Question	Answers	Additional comments/Guidelines	Mark	AO
02	Correct identification of all three A: CT scanner, B: MR scanner, C: Ultrasound scanner ✓ A: good picture of bone / bright picture of bone / lacking detail on soft tissue (eg eyes, brain) ✓ B: highest resolution / good (detailed/bright) image of soft tissue (eg eyes, brain) / dim picture of bone ✓ C: low resolution / image shows external boundaries (eg uterus) / lack of detail inside skull ✓	Allow CAT for CT and MRI for MR	4	AO3
Total			4	