**0 2** Coronary heart disease (CHD) is a non-communicable disease.

CHD is caused when fatty material builds up in the coronary arteries.
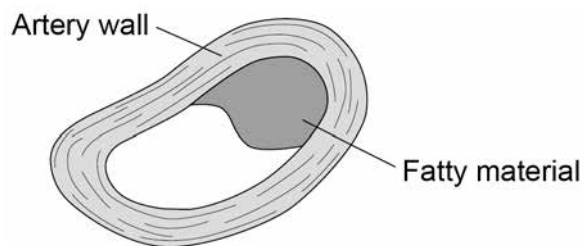
**0 2 . 1** Explain what a non-communicable disease is.

**[2 marks]**

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**Figure 4** shows a coronary artery of someone with CHD.

**Figure 4**



**0 2 . 2** Explain how CHD can cause a heart attack.

**[3 marks]**

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**0 2 . 3**    Explain how lifestyle and medical risk factors increase the chance of developing CHD.

**[6 marks]**

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**11**

**Turn over for the next question**

**Turn over ▶**

| Question | Answers | Extra information | Mark | AO / Spec. Ref. |
|---|---|---|---|---|
| **02.1** | is not caused by a pathogen / infective organism | allow not caused by a microorganism / microbe ignore not caused by infection<br><br>ignore named pathogen unless bacteria, virus and fungus all mentioned | 1 | AO1<br>4.2.2.4<br>4.2.2.5<br>4.3.1.1<br>4.3 |
| | (so ) is not passed / spread (from person to person) | allow cannot be spread / caught allow is not infectious / contagious | 1 | AO2<br>4.2.2.4<br>4.2.2.5<br>4.3.1.1<br>4.3 |
| **02.2** | | allow 'it' for heart | | AO1<br>4.2.2.4 |
| | reduced / restricted / stopped blood flow | it does not matter where blood flow is restricted to – heart / body | 1 | |
| | (so) less oxygen reaches heart (muscle / cells) | must reference heart / it allow no oxygen reaches the heart (muscle / cells) | 1 | |
| | (so heart muscle / cells) cannot respire (enough)<br>**or**<br>(so heart muscle / cells) do not release (enough) energy | <br><br>do **not** accept do not make / produce / create energy<br><br>ignore references to breathing / suffocation<br><br>ignore blood clots / blockages | 1 | |

| Question | Answers | Mark | AO / Spec. Ref. |
|---|---|---|---|
| **02.3** | **Level 3:** Relevant points (factors / effects) are identified, given in detail and logically linked to form a clear account. | 5–6 | AO2 |
| | **Level 2:** Relevant points (factors / effects) are identified and there are attempts at logical linking. The resulting account is not fully clear. | 3–4 | AO2 AO1 |
| | **Level 1:** Points are identified and stated simply, but their relevance is not clear and there is no attempt at logical linking. | 1–2 | AO1 |
| | No relevant content | 0 | |
| | **Indicative content**<br><br>**medical risk factors:**<br>• high blood pressure<br>• high cholesterol<br>• diabetes<br>• genetic factors<br>• medications<br><br>**lifestyle risk factors:**<br>• smoking<br>• obesity<br>• lack of exercise<br>• high fat / energy diet<br>• eating insufficient fruit / vegetables<br>• alcohol<br>• high salt  intake<br>• exposure to air pollution<br>• certain drugs / correct named drug<br><br>**examples of links:**<br>• smoking – high bp / cholesterol / fatty deposition<br>• obesity – lack of exercise / high bp / cholesterol / fatty deposition / diabetes<br>• exercise – obesity / bp /diabetes<br>• diet – obesity / cholesterol / diabetes<br>• alcohol – bp / cholesterol<br>• high salt  intake - high blood pressure<br>• genetic factors – bp / cholesterol / diabetes / obesity<br>• medication – can affect blood / blood vessels / metabolism<br><br><br>the main discriminator is the quality of linking<br>both lifestyle and medical factors are required for **level 3** | | 4.2.2.2<br>4.2.2.4<br>4.2.2.5<br>4.2.2.6 |
| **Total** | | **11** | |