

Question Number	Answer	Mark
1(a)(i)	<p>Any three from:</p> <ol style="list-style-type: none"> 1. decrease in smoking / not smoking / eq ; 2. reference to {increase / regular / eq} exercise ; 3. improvements to diet qualified, e.g. reduce salt, reduce saturated fat, increase fibre ; 4. maintaining appropriate weight / eq ; 5. {moderate / reduced} alcohol consumption / eq ; 6. reducing stress / eq ; 7. use of medication e.g. statins, antihypertensives, warfarin ; 	(3)

Question Number	Answer	Mark
1(a)(ii)	<ol style="list-style-type: none"> 1. (less) cholesterol (in blood) to build up on artery (wall) / eq ; 2. less likely to develop atherosclerosis / eq ; 3. credit correct reference to subsequent consequence of atherosclerosis e.g. narrowing of arteries, ischaemia, decrease in flow of blood (to heart) ; 	(2)

Question Number	Answer	Mark
1(b)	<ol style="list-style-type: none"> age effect qualified e.g. older increases risk, {arteries {become less elastic / more easily damaged / blood pressure increases} with (increase in) age ; gender effect qualified e.g. {women less likely to develop CVD than men / oestrogen offers some protection to women against CVD } (pre menopause) / eq ; 	(2)

Question Number	Answer	Mark
1(c)(i)	<ol style="list-style-type: none"> Finland has the highest death rate / eq ; Sweden has the lowest death rate /eq ; credit correct manipulation of figures to compare one of these countries to one other country ; 	(3)

Question Number	Answer	Mark
1(c)(ii)	<ol style="list-style-type: none"> Finland {highest on graph / not highest on map} Germany and UK have the highest on the map / eq ; idea that a number (3 or more) of countries are the same on the map ; France does not have the lowest number of deaths / eq ; Credit any other correct comparison ; {map shows number of deaths and graph shows relative death rate / map gives the results grouped together but graph shows individual values / map does not allow for population size} ; 	(2)

Question Number	Answer	Mark
1(c)(iii)	<p>Any one from:</p> <ol style="list-style-type: none">1. the data on the map is shown in groups / eq;2. the data might come from a different year / different time / no information given on the year / eq ;3. different groups of people were surveyed / eq ;4. idea that bar graph shows number of deaths relative to population / the map does not take into account the population of the country ;	(1)

Question Number	Answer	Mark
2(a)(i)	A ;	(1)

Question Number	Answer	Mark
2(a)(ii)	A ;	(1)

Question Number	Answer	Mark
2(a)(iii)	D ;	(1)

Question Number	Answer	Mark
2(a)(iv)	B ;	(1)

Question Number	Answer	Mark
2(a)(v)	D ;	(1)

Question Number	Answer	Mark
2(b)(i)	<ol style="list-style-type: none"> 1. {control / no treatment / placebo} results in (mean) increase in {volume / eq} of plaque / eq ; 2. {drug / treatment} causes a decrease in plaque volume / eq ; 3. 70 mm³ difference in means / eq ; 4. comment on (the error bars show) plaque increased in some and decreased in others ; 5. comment on (length of error bars show) the change in plaque size was more varied in the treatment group e.g treatment group has a greater range of data ; 	max (2)

Question Number	Answer	Mark
2(b)(ii)	<p>Any two from</p> <ol style="list-style-type: none"> 1. reference to small sample size e.g. only 20 in each group, only 40 people tested in total, not enough data ; 2. idea that {there is no indication of statistical significance / the error bars overlap} ; 3. idea that (2 months) is a very short period of time ; 4. idea that there is no evidence that the reduction in volume is permanent ; 5. reference to {other variables / appropriate named variable} not taken into account ; 	max (2)

Question Number	Answer	Mark												
3(a)	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>X</td> <td>✓</td> <td>✓</td> </tr> <tr> <td></td> <td>✓</td> <td>X</td> <td>✓</td> </tr> </table> <p>;;; Any 2 correct for one mark</p>						X	✓	✓		✓	X	✓	(3)
	X	✓	✓											
	✓	X	✓											

Question Number	Answer	Mark
3(b)(i)	<ol style="list-style-type: none"> 1. {base / eq} (of aorta) ; 2. prevents backflow (of blood into heart / ventricles) / eq ; 3. during { diastole / atrial systole } / eq ; 	(3)

Question Number	Answer	Mark
3(b)(ii)	<ol style="list-style-type: none"> 1. {middle layer of wall of vessel / eq } / tunica media / in the muscle layer ; 2. reference to allows { stretching / recoil / description} ; 3. to prevent damage (of the aorta) / eq / {to maintain the pressure of the blood / eq } ; 	(3)

Question Number	Answer	Mark
4(a)	idea that {it overcomes limitations of diffusion / it is involved in transport / heat transfer} ;	(1)

Question Number	Answer	Mark
4(b)	<p>Arrow / arrows in the labelled right side of diagram to indicate the following:</p> <ol style="list-style-type: none"> 1. blood (entering) through vena cava ; 2. blood flowing from atrium into ventricle ; 3. blood (leaving heart) through pulmonary artery ; 	(3)

Question Number	Answer	Mark
4 (c)	<ol style="list-style-type: none"> 1. idea that it keeps oxygenated and deoxygenated blood separate ; 2. idea that this results in as much oxygen as possible being carried to the {tissues / cells } ; 3. reference to different pressures in each side / need for different pressures explained ; 	max (2)

Question Number	Answer	Mark
5(a)	1. idea that stimulation generated from within (muscle) e.g. no external stimulation ; 2. idea of brings about depolarisation ;	(2)

Question Number	Answer	Mark
*5(b) QW	(QWC - Spelling of technical terms (<i>shown in italics</i>) must be correct and the answer must be organised in a logical sequence) 1. reference to { <i>Sinoatrial node / SAN</i> } ; 2. initiates <i>depolarisation</i> / eq ; 3. passes through (wall of) <i>atria</i> / eq ; 4. causes <i>atrial</i> { <i>systole</i> / eq} ; 5. <i>AVN</i> conducts to <i>ventricles</i> / eq ; 6. reference to { <i>Purkyne</i> fibres / bundle of <i>His</i> } ; 7. ventricular { <i>systole</i> / eq} follows (from apex) / eq ; 8. atrioventricular valves closed (and prevent flow to atria) ; 9. <i>semilunar</i> valves opened by pressure / eq ; 10. blood forced into <i>arteries</i> / eq ; 11. changed pressure in { <i>diastole</i> / eq} closes <i>semilunar</i> valves ;	max (6)