

Circulatory System 4 MS

QUESTION 1

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	(substance / chemical) that affects body chemistry / chemical reactions in the body		1
b)	<p>statin / aspirin / neither recommended</p> <p>any five from:</p> <ul style="list-style-type: none"> •argued evaluation in favour of aspirin or statin or neither <p>answers could include reference to</p> <p>for statins:</p> <ul style="list-style-type: none"> •more people in studies •so data / findings more repeatable •reduces cholesterol but aspirin doesn't •aspirin (may) causes bleeding / poor clotting but statins do not •smaller (total) percentage suffer side-effects •monitored by doctor, aspirins not <p>for aspirin:</p> <ul style="list-style-type: none"> •cheaper •can be bought over the counter rather than prescribed •statins cause serious damage / muscle damage / kidney failure but aspirins do not <p>similarities:</p> <ul style="list-style-type: none"> •both have similar effect on reducing (non-fatal) heart attacks •incidence of side-effects low in both 	<p>no mark, may be implied. If no recommendation or implication, max 4 marks</p> <p>answers should be comparative 5</p> <p>accept converse for statins / aspirin but not as advantage of one and disadvantage of other</p> <p>accept reliable for repeatable ignore accurate / precise</p> <p>allow reduces cholesterol but no evidence about aspirin</p> <p>allow aspirin causes bleeding / poor clotting but no evidence about statins</p> <p>allow (for aspirin) higher reduction of risk of heart attack</p>	5
Total marks			6

QUESTION 2

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	small (rate of) decrease then bigger (rate of) decrease idea that change of rate (of decrease) at 900 (mg per day)	If no other mark awarded allow 1 mark for decrease	1 1
b)i)	gene(s) / nucleus / chromosome(s) / DNA	allow ribosome	
b)ii)	reduces production of cholesterol (by liver)	allow idea of switching off gene for reductase (production) allow switch off / reduce / inhibit reductase (production) allow reduces absorption of cholesterol (by intestine) allow statins (might) breakdown / destroy cholesterol	1 1
Total marks			5