

MARK SCHEME

1.2.2

1 – C

2 – B

3 – C

4 (a) (i) – Veins / Vena Cava / Pulmonary Vein

(ii) - Stop backflow of blood / stop blood going backwards / stop blood going the wrong way / Equiv.

(b)

Question Number	Answer			Mark
10(b)	(i) Component of blood	(ii) Function of each component	(iii) Importance to sports performer	
	Red blood cells  Do not accept plasma as does not match entry in final column	Carry/ collect/ transport <u>oxygen/O<sup>2</sup></u>  Do not accept haemoglobin on its own Do not accept provide/produce oxygen		
		Fight disease/help immune system/ equiv	Keep the performer <b>healthy</b> so they can <b>compete</b> /equiv  Do not accept keep healthy on its own	
	Platelets  Do not accept plasma as does not match entry in final column	Aid clotting/form a scab/equiv		
				<b>(6)</b>

5

Answer	Mark
A - Semi lunar valves B - Septum C - ventricle/ventricles D - atrium/atria/atriums.	(4)

6 – B

7 -

Question Number	Answer	Mark
10	Accept in any order: Heart Blood Blood vessels	(3)
		(Total 3 marks)

Question Number	Answer	Mark
11(a)(i)	Oxygen	(1)

Question Number	Answer	Mark
11(a)(ii)	higher/greater/more/increased	(1)

Question Number	Answer	Mark
11(b)	<ol style="list-style-type: none"> <li>1. Aid clotting to plug the hole / barrier on the skin/prevent further bleeding /equiv</li> <li>2. So the performer can continue to play/avoid blood bin / equiv</li> </ol>	(2)
		(Total 4 marks)

8 –

Question Number	Answer	Mark
10(a) (i)	Heart rate	(1)
(ii)	Tidal volume	(1)
(iii)	Stroke volume	(1)
(b)	<ol style="list-style-type: none"> <li>1 SV/HR</li> <li>2 Stroke volume and heart rate</li> <li>3 (i) and (iii)</li> </ol> Accept any from points 1 - 3	(1)
<b>Total for Question 10</b>		<b>(4)</b>

Question Number	Answer	Mark
<b>16(a)(i)</b>	1. Oxygen transport/equiv 2. Regulating temperature 3. Removing Co <sub>2</sub> /lactic acid/transport nutrients/waste materials.  Any point	<b>(1)</b>
<b>(ii)</b>	1. <u>More</u> efficient transfer/ <u>more</u> oxygen 2. improved energy production/more aerobic energy/ can work for longer  Point 2 is 'extension' mark	<b>(2)</b>
<b>(iii)</b>	Used in recovery//to allow performer to sprint again/equiv	<b>(1)</b>
<b>(b)(i)</b>	1. Amount of oxygen consumed/used/needed/leaving	

Mark out of 30.

A*	A	B	C	D	E	F	G	U
90%	80%	70%	60%	50%	40%	30%	20%	10%