

2(a)	<i>any three from:</i> large surface area ; thin, (wall / surface,) / short diffusion distance / one cell thick ; good blood supply / network of capillaries ; good ventilation (with air) ;
2(b)(i)	P and S ;
2(b)(ii)	keeps the trachea / bronchi / airway open OR prevents collapse of trachea / bronchi / airway ;
2(c)(i)	$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$;;
2(c)(ii)	<i>any three from:</i> 1 increased carbon dioxide in blood ; 2 (high) carbon dioxide (in blood) detected by the brain ; 3 increases <u>impulses</u> to (named) muscles used in breathing / AW ; 4 increases contraction of (named) muscles used in breathing ; 5 adrenaline is released ; 6 to increase rate and depth of breathing ;