

Gaseous exchange

Mark scheme

1.	(a)	B = rib	1	
		C = diaphragm	1	
	(b)	(i) D	1	
		<i>allow lower case</i>		
		(ii) carbon dioxide	1	
				[4]
2.	(a)	any two from:		
		• large surface / area or many villi or have microvilli <i>accept big surface / area</i>		
		• thin surface or thin wall or surface 1-cell thick or capillaries near surface or permeable or partially permeable <i>accept they are thin</i> <i>do not allow thin cell wall</i>		
		• <u>many</u> blood vessels or <u>many</u> capillaries or capillary <u>network</u> or <u>good</u> blood supply <i>ignore 'constant blood flow' owtte</i> <i>ignore extras eg moist or reference to gases</i>		
		• have enzymes <i>ignore release enzymes</i>	2	
		• <i>accept reference to lacteal as 5th point</i> • <i>allow reference to having mitochondria</i>		
	(b)	(i) small(er) (surface area) / flat(ter) / short(er) or not as folded or fewer capillaries owtte <i>allow small(er) lacteal</i> <i>ignore references to wide / thick / spread out etc</i>	1	
		(ii) less absorption (of digested food) / less digestion / diffusion <i>accept slower for less</i> <i>accept description of less digestion</i> <i>accept less food can get in</i> <i>do not allow zero absorption</i> <i>do not allow 'collection' of nutrients</i>	1	
				[4]
3.	(a)	(i) increased / thick(er) <i>allow more / wide(r) / broad</i>	1	
		(ii) decreased	1	
	(b)	1	2	
		<i>IGNORE working or lack of working</i> <i>correct figures from table 2.1 and 1.1 but no answer / wrong answer = 1 mark</i>		[4]