

Unit Cod J257/04

Qual Name GCSE Biology B (Twenty First Century Science)

Qual Title Depth in biology (Higher)

Tier: Higher

Question Set	Q. No	Total Marks	AO	Spec Ref.	Topic	Question Subject, If required	Additional Notes/Comments	Maths Skills	Practical Assessment Skills
1	1a	2	1	B3.2.1, B1.1.6	How do producers get the substances they need?	This question is about how substances enter plant roots	Synoptic link, overlap		
1	1bi	2	2	B3.2.3, B3.2.4, B4.1.3, B5.1.2	How do producers get the substances they need?	This question is about how substances enter plant roots	Overlap		
1	1bii	2	1	B3.2.3, B3.2.4, B4.1.3, B5.1.2	How do producers get the substances they need?	This question is about how substances enter plant roots	Overlap		
1	1biii	2	1	B3.2.4, B5.1.7	How do producers get the substances they need?	This question is about how substances enter plant roots	Synoptic link, overlap		
1	1c	4	1	B3.2.2a, B3.2.4, B3.2.6a	How do producers get the substances they need?	This question is about how substances enter plant roots	Overlap		
1	1d	6	2 & 3	B3.2.6c, B3.2.7b	How do producers get the substances they need?	Extended writing question about how light intensity affects water uptake	Overlap		Y
2	1a	1	1	B3.2.2b	How do producers get the substances they need?	Practical investigations into the processes of osmosis & diffusion	Requires diagram at start of question		Y
2	1b	1	2	B3.2.2b	How do producers get the substances they need?	Practical investigations into the processes of osmosis & diffusion			Y
2	1c	2	2	B3.3.1b	Qualitative tests for food products	Qualitative tests for food products			Y
2	1di	4	3	B3.2.3, B3.3.1a	Qualitative tests for food products	Qualitative tests for food products	Requires Table 2.2		Y
2	1dii	3	1 and 2	B3.1.3a	Qualitative tests for food products	Qualitative tests for food products	Requires Table 2.2		Y
2	1e	4	2	B3.3.1b, B3.2.3	Qualitative tests for food products	Qualitative tests for food products			Y
3	1ai	3	1	B3.3.9, B3.1.1a, B4.1.1, B3.3.11	How are organisms in an ecosystem interdependent	This question is about the carbon cycle			
3	1aii	3	2	B3.3.11	How are organisms in an ecosystem interdependent	This question is about the carbon cycle	Requires diagram from 1ai		
3	1aiii	2	1	B3.3.10	How are organisms in an ecosystem interdependent	This question is about the carbon cycle	Requires diagram from 1ai		
3	1bi	2	3	B6.4.2, B6.4.5	How is biodiversity threatened & how we can protect it	This question is about changing Carbon dioxide levels & climate change	Graph required from (b)		
3	1bii	2	3	B6.4.2, B6.4.5	How is biodiversity threatened & how we can protect it	This question is about changing Carbon dioxide levels & climate change	Graph required from (b)		
3	1biii	2	3	B6.4.5	How is biodiversity threatened & how we can protect it	This question is about changing Carbon dioxide levels & climate change	Graph required from (b)	Y	

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3	1biv	2	3	B6.4.2, B6.4.5	How is biodiversity threatened & how we can protect it	This question is about changing Carbon dioxide levels & climate change	Graph required from (b)		
4	1a	2	2	B2.1.2, B2.1.3, B2.1.5	What are the causes of disease?	This question is about the causes of disease	Map required from question stem		
4	1bi	3	2	B6.1.6, B2.3.1	How was the theory of evolution developed & what are the causes of disease	This question is about how resistance can be used to prevent future disease	Synoptic link		
4	1bii	2	1 & 2	B4.3.4, B2.3.1	How do organisms grow & develop	How do organisms grow & develop	Synoptic link		
4	1biii	4	2	B1.2.7, B1.3.2	You & your genes	How do organisms grow & develop			
4	1ci	4	3	B2.4.2	How can we identify the cause of an infection	How can we identify the cause of an infection	Diagram required from question stem		Y
4	1cii	3	2	B2.4.3, B2.6.2	How can we identify the cause of an infection and how to treat it	How can we identify the cause of an infection	Diagram required from question stem, not to scale	Y	
4	1ciii	2	3	B2.4.3, B2.6.2	How can we identify the cause of an infection and how to treat it	How can we identify the cause of an infection			Y
4	1di	1	2	B4.2.2a	How do we know about cell structures	How do we know about cell structures	Table 4.2 required	Y	
4	1dii	1	2	B4.2.2a	How do we know about cell structures	How do we know about cell structures	Table 4.2 required	Y	
4	1diii	2	2	B4.2.2a	How do we know about cell structures	How do we know about cell structures	Table 4.2 required	Y	
4	1div	2	2	B4.2.2a	How do we know about cell structures	How do we know about cell structures	Table 4.2 required	Y	
5	1a	2	1	B4.1.1, B4.1.3	What happens during cellular respiration	This question is about respiration & the role of mitochondria			
5	1b	6	1 & 2	B5.3.2, B5.4.2a, B5.4.3, B4.1.1, B4.1.4, B5.1.3	The human body - staying alive & Using food	Extended response about homeostasis	Synoptic link		
5	1ci	3	1	B5.3.2	How do hormones control responses in the human body	How do hormones control responses in the human body			
5	1cii	4	2	B5.3.1, B1.1.4, B1.1.9	How do hormones control responses in the human body	How do hormones control responses in the human body	Synoptic link		
6	1a	1	1	B3.1.2, B3.2.5a	What happens during photosynthesis?	This question is about photosynthesis			
6	1b	2	3	B3.1.4a,b	What happens during photosynthesis?	This question is about photosynthesis and experimental data	Overlap, fig 1.1 required		Y
6	1ci	2	3	B3.1.4b, B3.1.7d	What happens during photosynthesis?	This question is about photosynthesis and experimental data	Overlap, Fig 1.2 required		Y
6	1cii	2	2	B3.1.4b, B3.1.7b,c	What happens during photosynthesis?	This question is about photosynthesis and experimental data	Overlap, Fig 1.3 required	Y	Y
6	1d	3	3	B3.1.4b, B3.1.7b,d	What happens during photosynthesis?	This question is about photosynthesis and experimental data	Overlap, Fig 1.3 required	Y	Y
6	1e	2	2 & 3	B3.1.4b, B3.1.7a,b,d	What happens during photosynthesis?	This question is about photosynthesis and experimental data	Overlap	Y	Y

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7	1	6	1 & 2	B2.1.3, B2.1.2, B2.2.1	Keeping healthy	Level of Response question about the causes of disease and protection and prevention			
8	1a	1	1	B3.3.4	Living together & food & ecosystems	This question is about how populations are affected by conditions in an ecosystem	Food web required		
8	1b	2	2	B3.3.4	Living together & food & ecosystems	This question is about how populations are affected by conditions in an ecosystem	Food web required		
8	1c	3	2 & 3	B6.4.1, B3.4.1	Life on Earth & living together	This question is about how diversity is threatened and how populations are affected	Synoptic, table required		
8	1di	4	2	B6.4.1, B3.4.1, B3.3.5, B3.3.11	Life on Earth & living together	This question is about how diversity is threatened and how populations are affected	Synoptic		
8	1dii	2	1 & 2	B1.1.10, B6.1.2, B1.1.6	You & your genes & Life on Earth	This question is about how evolution affects an organism	Synoptic		
9	1ai	1	1	B3.2.6a	living together - food & ecosystems	This question is about stomata structure	Photograph required		
9	1aii	2	2	B4.2.2a,c, B3.2.6b	using food & controlling growth	This question is about measuring cell structures	Photograph required, not to scale	Y	Y
9	1bi	4	1 & 3	B3.2.6b	living together - food & ecosystems	This question is about using a microscope	Requires Fig 4.1		Y
9	1bii	3	1 & 2	B2.4.3, B3.2.6b	Keeping healthy	This question is about measuring cell structures	Synoptic, requires Fig 4.2, not to scale	Y	Y
9	1biii	1	2	B3.2.6b	living together - food & ecosystems	This question is about measuring cell structures	Requires Fig. 4.3	Y	Y
9	1biv	2	2	B3.2.6b	living together - food & ecosystems	This question relates to measuring cell structures	Requires Fig 4.3	Y	Y
9	1c	4	1	B3.2.6a, B3.2.1, B3.1.1, B4.1.1, B2.1.3	living together - food & ecosystems	This question is about the role of stomata in photosynthesis	Synoptic		
10	1ai	1	2	B2.5.2	Keeping healthy	This question is about the effect of smoking on health		Y	
10	1aii	1	2	B2.5.2	Keeping healthy	This question is about the effect of smoking on health		Y	
10	1b	3	1	B4.3.2, B1.1.11, B1.1.12	Using food & controlling growth	This question is about the effect of smoking on health			
10	1ci	2	2	B2.5.2	Keeping healthy	This question is about the effect of smoking on health	Synoptic, requires bar chart	Y	
10	1cii	2	3	B2.5.2, B2.5.3b	Keeping healthy	This question is about the effect of smoking on health			
10	1ciii*	6	2 & 3	B2.5.1a, B2.5.3b, B4.3.2	Keeping healthy	This question is about the effect of smoking on health	Synoptic, Level of Response		
11	1ai	3	1	B4.3.1a	using food & controlling growth	This question is about the cell cycle			
11	1aii	3	1	B4.3.4, B4.3.5	using food & controlling growth	This question is about stem cells			
11	1b	3	2	B5.1.6, B5.1.7	The human body	This question is about how substances get around the body	Requires photo of blood cells		

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11	1ci	5	1, 2 & 3	B1.2.1, B6.1.3, B2.5.4	You & your genes, Life on Earth	This question is about how genetic information is inherited	Synoptic		
11	1cii	2	3	B1.2.2, B6.1.3, B2.5.4	You & your genes, Life on Earth	This question is about how genetic information is inherited	Synoptic		
12	1ai	3	1	B5.4.1, B3.1.3a	The human body - staying alive	This question is about enzymes	Synoptic, requires graph		
12	1aii	2	1 & 2	B6.1.3, B3.1.3a	Life on Earth, Living together	This question is about enzymes	Requires graph		
12	1aiii	3	2	B5.4.4, B3.2.2a	The human body - Living together	This question is about enzymes	Synoptic		
12	1b	4	2	B6.1.2, B1.1.8, B1.1.11	Life on Earth, You & your genes	This question is about enzymes	Synoptic		
13	1a	1	3	B4.1.5a	Using food & controlling growth	This question is about respiration experiments	Overlap		Y
13	1b	3	3	B4.1.5a	Using food & controlling growth	This question is about respiration experiments	Overlap		Y
13	1c	2	2 & 3	B4.1.5a, B4.1.1	Using food & controlling growth	This question is about respiration experiments	Overlap		Y
13	1d	1	2	B4.1.5a, B4.1.4	Using food & controlling growth	This question is about respiration experiments	Overlap		Y
13	1e	2	3	B4.1.5a	Using food & controlling growth	This question is about respiration experiments	Overlap, requires fig 1.3		Y
13	1f	1	2	B4.1.5a	Using food & controlling growth	This question is about respiration experiments	Overlap, requires fig 1.4 & table 1.2	Y	Y
13	1g	1	3	B4.1.5a	Using food & controlling growth	This question is about respiration experiments	Overlap, requires fig 1.4	Y	Y
13	1h	2	3	B4.1.5a	Using food & controlling growth	This question is about respiration experiments	Overlap, requires fig 1.4	Y	Y
13	1i	3	2 & 3	B4.1.5a, B4.1.5b	Using food & controlling growth	This question is about respiration experiments	Overlap, requires fig 1.4	Y	Y
13	1j	2	3	B4.1.5a	Using food & controlling growth	This question is about respiration experiments	Overlap, requires fig 1.4		Y
14	1a	2	1	B3.3.1b	Living together - food & ecosystems	This question is about food tests			Y
14	1b	2	1	B3.3.3, B3.3.1a	Living together - food & ecosystems	This question is about the products of digestion			
14	1c	6	1 & 2	B6.1.3, B6.1.4, B6.1.5	Life on Earth - past present & future	This question is about natural selection	Level of Response question		
15	1ai	2	3	B2.5.3d, B2.5.2	Keeping healthy	This question is about the effects of lifestyle on health	Scattergraph required		
15	1aii	1	1	B2.5.1a	Keeping healthy	This question is about the effects of lifestyle on health	Scattergraph required		
15	1aiii	2	3	B2.5.2	Keeping healthy	This question is about the effects of lifestyle on health	Scattergraph required		
15	1aiv	3	3	B2.5.3c	Keeping healthy	This question is about the effects of lifestyle on health	Scattergraph required		

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15	1bi	2	2	B2.5.1a, B2.6.3	Keeping healthy	This question is about the effects of lifestyle on health			
15	1bii	2	2	B2.6.3, B2.5.1a	Keeping healthy	This question is about the effects of lifestyle on health			
15	1biii	1	2	B2.6.3	Keeping healthy	This question is about the effects of lifestyle on health			
16	1ai	1	2	B3.2.5a	Living together - food & ecosystems	This question is about the movement of substances in plants	Requires fig 4.1		
16	1aii	4	1	B3.2.5a, B3.2.6a	Living together - food & ecosystems	This question is about the movement of substances in plants	Requires fig 4.1		
16	1aiii	1	1	B3.2.1	Living together - food & ecosystems	This question is about the movement of substances in plants	Requires fig 4.1		
16	1bi	4	1	B3.2.6a, B3.2.2a	Living together - food & ecosystems	This question is about the movement of substances in plants	Requires fig 4.2		
16	1bii	3	1	B3.2.6a, B3.2.5a	Living together - food & ecosystems	This question is about the movement of substances in plants			
16	1biii	2	1	B3.2.5a, B3.2.2a, B4.1.3	Living together - food & ecosystems	This question is about the movement of substances in plants	Synoptic		
16	1ci	2	2	B2.4.1a	Keeping healthy	This question is about measuring the size of a bacterium	Requires fig 4.3, not to scale	Y	
16	1cii	2	2 & 3	B2.4.1a, B4.2.2c	Keeping healthy	This question is about measuring the size of a bacterium	Synoptic, Requires Fig 4.3	Y	
16	1di	4	2	B2.4.1a, B2.4.4	Keeping healthy	This question is about monoclonal antibodies			
16	1dii	3	2	B2.4.1a, B2.4.5	Keeping healthy	This question is about monoclonal antibodies			
17	1b	2	1	B1.1.4, B1.2.6	You & your genes	This question is about inheritance of genetic information		Y	
17	1ci	2	2	B5.2.5	The human body - staying alive	This question is about			
17	1cii	2	1	B5.6.6, B4.3.1a	The human body - staying alive	This question is about the effect of a genetic disease on the body	Synoptic		
17	1ciii	2	2	B5.6.6, B4.3.4	The human body - staying alive	This question is about the effect of a genetic disease on the body	Synoptic		
17	1civ	2	2	B4.5.1	The human body - staying alive	This question is about the effect of a genetic disease on the body			
17	1di	3	2	B1.1.9	You & your genes	This question is about inheritance of genetic information			
17	1dii	2	2	B1.1.9	You & your genes	This question is about inheritance of genetic information			
18	1	6	1 & 2	B5.4.5, B5.4.6, B5.4.7	The human body - staying alive	N/A	Level of response question about maintaining the internal environment		