

**Unit Code** H020/02

**Qual Name** AS Level Biology A

**Qual Title** Depth in biology

Question Set	Q. No	Total Marks	AO	Spec Ref.	Topic	Question Subject, If required	Additional Notes/Comments
1	1ai	1	1	2.1.1a	Cell structure	This is a synoptic question on microscopy, meiosis and stem cells	
1	1aii	1	1	2.1.1a	Cell structure	This is a synoptic question on microscopy, meiosis and stem cells	
1	1bi	1	2	2.1.1a, 2.1.6g	Cell structure / Cell division, cell diversity and cellular organisation	This is a synoptic question on microscopy, meiosis and stem cells	
1	1bii	2	1 & 2	2.1.1a, 2.1.6g	Cell structure / Cell division, cell diversity and cellular organisation	This is a synoptic question on microscopy, meiosis and stem cells	
1	1biii	3	2	1biii	Cell division, cell diversity and cellular organisation	This is a synoptic question on microscopy, meiosis and stem cells	
1	1c	4	2 & 3	2.1.6m	Cell division, cell diversity and cellular organisation	This is a synoptic question on microscopy, meiosis and stem cells	
2	1a	2	1	3.1.3bii, 3.1.3biii	Transport in plants	This question is about vascular tissues in plants testing practical skills and plant adaptations to water availability.	
2	1b	2	2	3.1.3bi	Transport in plants	This question is about vascular tissues in plants testing practical skills and plant adaptations to water availability.	
2	1c	3	2	3.1.3bi	Transport in plants	This question is about vascular tissues in plants testing practical skills and plant adaptations to water availability.	
3	1a	2	3	3.1.1g	Exchange surfaces	This question is about gaseous exchange in bony fish, insects and lungs of mammals	
3	1bi	2	2 & 3	3.1.1f	Exchange surfaces	This question is about gaseous exchange in bony fish, insects and lungs of mammals	
3	1bii	1	1	3.1.1g	Exchange surfaces	This question is about gaseous exchange in bony fish, insects and lungs of mammals	
3	1biii	2	1	3.1.1c, 3.1.1g	Exchange surfaces	This question is about gaseous exchange in bony fish, insects and lungs of mammals	
3	1c	6	1 & 2	3.1.1b	Exchange surfaces	This question is about gaseous exchange in bony fish, insects and lungs of mammals	

Question Set	Q.	Total Marks	AO	Spec Ref.	Topic	Question Subject, If required	Additional Notes/Comments
4	1a	4	1 & 2	4.1.1f	Communicable diseases, disease prevention and the immune system	This question is about the immune response and vaccination and the control of communicable disease	
4	1b	3	1	4.1.1g	Communicable diseases, disease prevention and the immune system	This question is about the immune response and vaccination and the control of communicable disease	
4	1c	6	2	4.1.1b	Communicable diseases, disease prevention and the immune system	This question is about the immune response and vaccination and the control of communicable disease	
5	1ai	2	2	1.1.3b, 4.2.1bi	Biodiversity / Development of practical skills in biology - Analysis	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
5	1aii	2	2	1.1.3di, 4.2.1a	Biodiversity / Development of practical skills in biology - Analysis	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
5	1aiii	1	3	4.2.1f	Biodiversity	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
5	1aiv	2	3	1.1.4a, 4.2.1f	Biodiversity / Development of practical skills in biology - Evaluation	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
5	1av	1	3	1.1.1b, 4.2.1bii	Biodiversity / Development of practical skills in biology - Planning	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
5	1b	2	3	1.1.4a, 4.2.1a	Biodiversity / Development of practical skills in biology - Evaluation	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
5	1ci	1	1	4.2.1a	Biodiversity	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
5	1cii	1	1	4.2.1a, 4.2.2g, 4.2.2h	Biodiversity / Classification and evolution	This question is about a sampling experiment on biodiversity with data analysis and evaluation	
6	1ai	3	3	1.1.3di, 2.1.2r	Biological molecules / Development of practical skills in biology - Analysis	This question tests graphing skills in the context of the Benedict's test and a colorimeter and compares different biological molecules	
6	1aii	2	2	2.1.2r, 1.1.3di	Biological molecules / Development of practical skills in biology - Analysis	This question tests graphing skills in the context of the Benedict's test and a colorimeter and compares different biological molecules	
6	1bi	4	3	1.1.1a, 2.1.2q, 2.1.2r	Biological molecules / Development of practical skills in biology - Planning	This question tests graphing skills in the context of the Benedict's test and a colorimeter and compares different biological molecules	
6	1bii	1	3	1.1.1c, 2.1.2q	Biological molecules / Development of practical skills in biology - Planning	This question tests graphing skills in the context of the Benedict's test and a colorimeter and compares different biological molecules	
6	1ci	2	2	2.1.2c, 2.1.2d	Biological molecules	This question tests graphing skills in the context of the Benedict's test and a colorimeter and compares different biological molecules	

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6	1cii	1	1	2.1.2d	Biological molecules	This question tests graphing skills in the context of the Benedict's test and a colorimeter and compares different biological molecules	
7	1ai	1	1	2.1.2k	Biological molecules	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1aii	1	1	2.1.2 b, 2.1.2 l	Biological molecules	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1bi	2	1	2.1.3g	Nucleotides and nucleic acids	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1bii	2	2	2.1.3f	Nucleotides and nucleic acids	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1biii	6	1	2.1.2n, 2.1.2o	Biological molecules	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1biv	2	2	1.1.3dii	Development of practical skills in biology - Analysis	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1bv	2	3	4.1.1a, 4.1.1k	Communicable diseases, disease prevention and the immune system	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1ci	4	3	1.1.2a, 2.1.2si	Biological molecules / Development of practical skills in biology - Implementing	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
7	1cii	2	2	1.1.3a, 1.1.3b, 1.1.3c, 2.1.2sii	Biological molecules / Development of practical skills in biology - Analysis	This is a synoptic question set in the context of proteins and tests aspects of protein structure, genetic code, types of protein, data analysis and evaluation and the technique of chromatography	
8	1ai	1	2	3.1.2h	Transport in animals	This question is about the heart	
8	1aii	3	2	3.1.2h	Transport in animals	This question is about the heart	
8	1aiii	2	2	3.1.2g	Transport in animals	This question is about the heart	

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8	1bi	1	3	3.1.2eii	Transport in animals	This question is about the heart	
8	1bii	1	1	3.1.2eii	Transport in animals	This question is about the heart	
8	1c	6	1 & 2	3.1.2f	Transport in animals	This question is about the heart	
9	1a	1	2	2.1.1 j	Cell structure	This synoptic question is about the immune system testing aspects of cell structure and specialised cells	
9	1b	4	1& 2	2.1.1 j, 4.1.1d	Cell structure / Communicable diseases, disease prevention and the immune system	This synoptic question is about the immune system testing aspects of cell structure and specialised cells	
9	1ci	2	2	4.1.1e	Communicable diseases, disease prevention and the immune system	This synoptic question is about the immune system testing aspects of cell structure and specialised cells	
9	1cii	1	1	4.1.1h	Communicable diseases, disease prevention and the immune system	This synoptic question is about the immune system testing aspects of cell structure and specialised cells	
10	1ai	2	1	2.1.2p, 2.1.4e	Biological molecules / Enzymes	This synoptic question is about ions and aspects of tissue fluid formation, enzyme inhibitors with a practical skills focus	
10	1aii	2	2	3.1.2d	Transport in animals	This synoptic question is about ions and aspects of tissue fluid formation, enzyme inhibitors with a practical skills focus	
10	1bi	2	1	2.1.4f	Enzymes	This synoptic question is about ions and aspects of tissue fluid formation, enzyme inhibitors with a practical skills focus	
10	1bii	2	2	1.1.3di, 2.1.4f	Enzymes / Development of practical skills in biology - Analysis	This synoptic question is about ions and aspects of tissue fluid formation, enzyme inhibitors with a practical skills focus	
10	1biii	2	3	2.1.4f	Enzymes	This synoptic question is about ions and aspects of tissue fluid formation, enzyme inhibitors with a practical skills focus	
10	1biv	3	3	1.1.1a, 1.1.1b, 2.1.4f	Enzymes / Development of practical skills in biology - Planning	This synoptic question is about ions and aspects of tissue fluid formation, enzyme inhibitors with a practical skills focus	
11	1ai	1	1	4.2.1i	Biodiversity	This question is about CITES with data analysis and evaluation	
11	1aii	2	2	4.2.1.i	Biodiversity	This question is about CITES with data analysis and evaluation	
11	1b	2	3	4.2.1i, 1.1.4a	Biodiversity	This question is about CITES with data analysis and evaluation	
12	1ai	3	2	4.2.1d	Biodiversity	This question is about sampling and biodiversity with a synoptic part on DNA purification	

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12	1a(ii)	1	2	1.1.1c, 4.2.1b(ii)	Biodiversity / Development of practical skills in biology - Planning	This question is about sampling and biodiversity with a synoptic part on DNA purification	
12	1b	3	3	1.1.2a, 1.1.4c, 1.1.4e, 2.1.3d(ii)	Development of practical skills in biology - Implementing & Evaluation	This question is about sampling and biodiversity with a synoptic part on DNA purification	
12	1c	1	3	4.2.1c	Biodiversity	This question is about sampling and biodiversity with a synoptic part on DNA purification	
13	1(a)(i)	1	1	3.1.3 b(i), 3.1.3 f	Transport in plants	This question is about translocation and includes synoptic links to tests for biological molecules	
13	1(a)(ii)	4	1	1.1.2 a, 1.1.3 a, 2.1.2 q	Transport in plants / Biological molecules / Development of practical skills in biology - Implementing and analysis	This question is about translocation and includes synoptic links to tests for biological molecules	
13	1(b)(i)	1	2	2.1.2 g, 3.1.3 f	Transport in plants / Biological molecules	This question is about translocation and includes synoptic links to tests for biological molecules	
13	1(b)(ii)	1	2	2.1.2 g, 3.1.3 f	Transport in plants / Biological molecules	This question is about translocation and includes synoptic links to tests for biological molecules	
14	1(a)	2	1 & 2	1.1.3 a, 2.1.1 e	Cell structure / Development of practical skills in biology - Analysis	This is a synoptic question in the context of a blood smear and tests microscopy skills	This calculation may be different from the mark scheme answer due to a scale change in this version
14	1b(i)	1	1	4.1.1 e(ii)	Communicable diseases, disease prevention and the immune system	This is a synoptic question in the context of a blood smear and tests microscopy skills	
14	1(b)(ii)	1	1	4.1.1 e	Communicable diseases, disease prevention and the immune system	This is a synoptic question in the context of a blood smear and tests microscopy skills	
14	1(c)(i)	3	1	2.1.1 c, 4.1.1 e(ii)	Communicable diseases, disease prevention and the immune system / Cell structure	This is a synoptic question in the context of a blood smear and tests microscopy skills	
14	1(c)(ii)	4	3	1.1.3 a, 2.1.1 c, 2.1.1 l, 2.1.3 f, 2.1.3 g, 4.1.1 f, 4.1.1h	Communicable diseases, disease prevention and the immune system / Cell structure / Nucleotides and nucleic acids / Development of practical skills in biology - analysis	This is a synoptic question in the context of a blood smear and tests microscopy skills	
15	1(a)(i)	1	2	4.2.2 a	Classification and evolution.	This question has parts from classification, variation, biodiversity and conservation	
15	1(a)(ii)	2	2	4.2.2 f	Classification and evolution.	This question has parts from classification, variation, biodiversity and conservation	
15	1(a)(iii)	2	2	4.2.2 a	Classification and evolution.	This question has parts from classification, variation, biodiversity and conservation	
15	1(b)(i)	1	2	4.2.1 f	Biodiversity	This question has parts from classification, variation, biodiversity and conservation	

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15	1(b)(ii)	6	3	4.2.1 a, 4.2.1 e, 4.2.1 f	Biodiversity	This question has parts from classification, variation, biodiversity and conservation	
15	1(c)(i)	1	2	4.2.1 h	Biodiversity	This question has parts from classification, variation, biodiversity and conservation	
15	1(c)(ii)	1	2	4.2.1 h	Biodiversity	This question has parts from classification, variation, biodiversity and conservation	
15	1(c)(iii)	1	2	4.2.1 h	Biodiversity	This question has parts from classification, variation, biodiversity and conservation	
15	1(c)(iv)	1	2	4.2.1 h	Biodiversity	This question has parts from classification, variation, biodiversity and conservation	
16	1(a)(i)	1	1	1.1.1 a, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Planning	This question is about the potometer and tests practical skills	
16	1(a)(ii)	6	1 & 3	1.1.1 a, 1.1.2 a, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Planning & Implementing	This question is about the potometer and tests practical skills	
16	1(b)(i)	3	3	1.1.3 a, 1.1.4 a, 1.1.4 b, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Analysis & Evaluation	This question is about the potometer and tests practical skills	
16	1(b)(ii)	1	3	1.1.4 a, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Evaluation	This question is about the potometer and tests practical skills	
16	1(b)(iii)	3	2	1.1.3 a, 1.1.3 b, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Analysis	This question is about the potometer and tests practical skills	
16	1(b)(iv)	1	2	1.1.1 a, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Planning	This question is about the potometer and tests practical skills	
16	1(c)	1	3	1.1.1 a, 1.1.1 c, 1.1.2 a, 1.1.4 e, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Planning, Implementing & Evaluation	This question is about the potometer and tests practical skills	
16	1(d)	2	3	1.1.1 a, 1.1.1 b, 1.1.2 c, 3.1.3 c(ii)	Transport in plants / Development of practical skills in biology - Planning & Implementing	This question is about the potometer and tests practical skills	
17	1(a)	2	2	2.1.5 e	Biological membranes	This synoptic question includes water potential in an unfamiliar context testing practical skills	
17	1(b)(i)	2	2	1.1.3 a, 1.1.3 b, 2.1.5 e	Biological membranes / Development of practical skills in biology - Analysis	This synoptic question includes water potential in an unfamiliar context testing practical skills	

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17	1(b)(ii)	2	3	1.1.3 a, 1.1.4 a, 2.1.5 e	Biological membranes / Development of practical skills in biology - Analysis & Evaluation	This synoptic question includes water potential in an unfamiliar context testing practical skills	
17	1(b)(iii)	3	2	2.1.5 e	Biological membranes	This synoptic question includes water potential in an unfamiliar context testing practical skills	
17	1(b)(iv)	2	2	1.1.4 a, 2.1.1 g, 2.1.5 d(i), 2.1.5 e	Biological membranes /Development of practical skills in biology - Evaluation / Cell structure	This synoptic question includes water potential in an unfamiliar context testing practical skills	
18	1(a)(i)	1	1	2.1.1 g	Cell structure	This synoptic question is centered around plant diseases	
18	1(a)(ii)	1	2	4.1.1 c	Communicable diseases, disease prevention and the immune system	This synoptic question is centered around plant diseases	
18	1(b)(i)	2	2	2.1.3 g, 4.1.1 b, 4. 1.1 c	Nucleotides and nucleic acids / Communicable diseases, disease prevention and the immune system	This synoptic question is centered around plant diseases	
18	1(b)(ii)	1	2	2.1.3 b	Nucleotides and nucleic acids	This synoptic question is centered around plant diseases	
18	1(b)(iii)	2	2	2.1.1 l, 2.1.3 g	Cell structure / Nucleotides and nucleic acids	This synoptic question is centered around plant diseases	