



GCE AS MARKING SCHEME

SUMMER 2023

**AS
DIGITAL TECHNOLOGY - UNIT 1
2540U10-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2023 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

WJEC GCE AS DIGITAL TECHNOLOGY – UNIT 1

INNOVATION IN DIGITAL TECHNOLOGY

SUMMER 2023 MARK SCHEME

Question	Answer	AO1	AO2	Total mark
1.	Ffion has received a router for use in the home. The router is a hybrid of a router, switch and wireless access point.			
(a)	State the purpose of the following pieces of hardware.			
(i)	Router			
	A router stores the addresses of computers on the network and transfers data between devices.	1		1
(ii)	Switch			
	A switch analyses each packet of data and sends it to the computer it was intended for.	1		1
(iii)	Wireless Access Point			
	A device that allows WiFi devices to connect to a network.	1		1
(b)	Ffion believes there will be better performance if the PC is plugged directly into the router using an ethernet cable. Recommend, with a reason, a category of ethernet cable that could be used.			
	<p>Award one mark for identifying a category of cable, for example:</p> <ul style="list-style-type: none"> • Cat5 • Cat6 <p>Award two marks for identifying a category of cable and giving a valid reason, for example:</p> <ul style="list-style-type: none"> • Cat5 is the cheapest to buy • Cat6a offers a larger bandwidth compared to Cat5 or Cat6 <p>Any other valid answer accepted.</p>		2	2

Question	Answer	AO1	AO2	Total mark
2.	There are four phases in the evolution of the Internet.			
	<p>(a) Describe what Phase 1 included, giving examples of the technology that was made available to the public.</p> <p>Award one mark for a limited response, for example:</p> <ul style="list-style-type: none"> Phase 1 included digitising access to information. <p>Award two marks for a basic response, for example:</p> <ul style="list-style-type: none"> Phase 1 included digitising access to information, including email and web browsers. <p>Award three marks for a more developed response, for example:</p> <ul style="list-style-type: none"> Phase 1 included digitising access to information, including email, web browsers and the ability to search the internet. <p>Award four marks for a fully developed response, for example:</p> <ul style="list-style-type: none"> The first phase started over 20 years ago and is referred to as 'connectivity'. This involved digitising access to information. Email, web browsing and searching for content was just beginning. 	4		4
	<p>(b) Compare IPv6 to IPv4 explaining why IPv6 has become necessary.</p> <p>Award one mark for a limited response, for example:</p> <ul style="list-style-type: none"> We need to move to IPV6 because there aren't enough addresses available with IPV4. <p>Award two marks for a more developed response, for example:</p> <ul style="list-style-type: none"> Currently, the Internet makes use of IP version 4, IPv4, which is now reaching the limits of its capacity to address additional devices. IPv6 provides a vastly expanded address space. The IPv4 address space comprises 32 bits which allows for 232 or over 4 billion addresses. IPv6 though has 2128 addresses. 		2	2

Question	Answer	AO1	AO2	Total mark
3.	Describe the following tests used to confirm human-level Artificial General Intelligence (AGI).			
	<p>(a) The Turing test</p> <p>Award one mark for a limited response, for example:</p> <ul style="list-style-type: none"> <li>• The Turing test involves a remote human interrogator, within a fixed time frame, must distinguish between a computer and a human subject based on their replies to various questions posed by the interrogator. <p>Award two marks for a basic response, for example:</p> <ul style="list-style-type: none"> <li>• A test proposed by Alan Turing in 1950 to determine whether a computer can think, also known as the imitation game. A remote human interrogator, within a fixed time frame, must distinguish between a computer and a human subject based on their replies to various questions posed by the interrogator. <p>Award three marks for a more developed response, for example:</p> <ul style="list-style-type: none"> <li>• A test proposed by Alan Turing in 1950 to determine whether a computer can think, also known as the imitation game. A remote human interrogator, within a fixed time frame, must distinguish between a computer and a human subject based on their replies to various questions posed by the interrogator. By means of a series of such tests, a computer's success at "thinking" can be measured by its probability of being misidentified as the human subject. 	3		3
	<p>(b) Nilsson's Employment test</p> <p>Award one mark for a limited response, for example:</p> <ul style="list-style-type: none"> <li>• The Nilsson test is where an AI program would attempt to complete part of a job. <p>Award two marks for a basic response, for example:</p> <ul style="list-style-type: none"> <li>• One of the most common human activities that we go through is doing 'jobs', at which we are employed. Nilsson proposed that the Turing test be replaced with an "employment test". To pass this test, the AI program should be able to perform jobs that are performed by humans. <p>Award three marks for a more developed response, for example:</p> <ul style="list-style-type: none"> <li>• One of the most common human activities that we go through is doing 'jobs', at which we are employed. AI researcher Nils J. Nilsson proposed that the Turing test be replaced with an "employment test". To pass this test, the AI program should be able to perform jobs that are performed by humans, and AGI can be evaluated on the basis of measuring the fraction of these economically important jobs that are acceptably performed by the AI. 	3		3

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4.	(a)	Define the term robot.															
		<p>Award one mark for a limited response, for example:</p> <ul style="list-style-type: none"> A robot is a machine capable of carrying out a complex series of actions automatically. <p>Award two marks for a more developed response, for example:</p> <ul style="list-style-type: none"> A robot is a machine capable of carrying out a complex series of actions automatically. Most robots are task-performing machines, designed with an emphasis on completing repetitive tasks. 	2		2												
	(b)	Suggest advantages and disadvantages that may arise with the use of autonomous robots in manufacturing.															
		Credit any other valid response.	8		8												
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Question	Answer	AO1	AO2	Total mark
5.	There are four main changeover methods used when introducing a new digital technology system.			
(a)	Name the four main methods.			
	Parallel	1		1
	Phased	1		1
	Pilot	1		1
	Direct	1		1
(b)	Describe two of the methods, giving one advantage and one disadvantage for each.			
	<p>Indicative content</p> <p>Parallel Old and new systems are run at the same time causing duplication of all tasks, while the new system is checked to ensure consistency.</p> <p>Advantage</p> <ul style="list-style-type: none"> • If one fails there is a backup. • The safest method of changeover. <p>Disadvantage</p> <ul style="list-style-type: none"> • Duplication of effort so not something you'd want to do for a long time. • Additional cost of running multiple systems concurrently. <p>Phased Initially, only part of the new system is deployed with the rest still on the old system. As the new parts are accepted the old is phased out.</p> <p>Advantage</p> <ul style="list-style-type: none"> • Works well with RAD (Rapid Application Deployment) <p>Disadvantage</p> <ul style="list-style-type: none"> • Requires the old system to work with the new system. <p>Pilot The new system is rolled out to a self-contained branch before being rolled out to the rest.</p> <p>Advantage</p> <ul style="list-style-type: none"> • Only one branch is affected by any problems. <p>Disadvantage</p> <ul style="list-style-type: none"> • Only works if department/branches are almost identical e.g. supermarkets or bank branches. • Doesn't work for companies with small numbers of branches/departments. 	6		6

Question	Answer	AO1	AO2	Total mark										
	<p>Direct Also known as the big bang changeover. Change to the new system immediately.</p> <p>Advantage</p> <ul style="list-style-type: none"> • Best option if there's no previous system or the previous system has failed. • Quickest changeover method. <p>Disadvantage</p> <ul style="list-style-type: none"> • High risk. <table border="1"> <thead> <tr> <th>Band</th> <th>AO1</th> </tr> </thead> <tbody> <tr> <td>3</td> <td> <p style="text-align: center;">5-6 marks</p> <p>A very good discussion, which shows:</p> <ul style="list-style-type: none"> • thorough knowledge and understanding of the advantages, disadvantages for two changeover methods. • a confident grasp of a scenario where the methods could be used. </td> </tr> <tr> <td>2</td> <td> <p style="text-align: center;">3-4 marks</p> <p>A good discussion, which shows:</p> <ul style="list-style-type: none"> • generally secure knowledge and understanding of the advantages, disadvantages of changeover methods. • a generally secure knowledge of a scenario where the methods could be used. </td> </tr> <tr> <td>1</td> <td> <p style="text-align: center;">1-2 marks</p> <p>A basic discussion, which shows:</p> <ul style="list-style-type: none"> • some knowledge and understanding of changeover methods. • some grasp of a scenario where the method could be used. </td> </tr> <tr> <td></td> <td> <p style="text-align: center;">0 marks</p> <p>Response not creditworthy or not attempted.</p> </td> </tr> </tbody> </table>	Band	AO1	3	<p style="text-align: center;">5-6 marks</p> <p>A very good discussion, which shows:</p> <ul style="list-style-type: none"> • thorough knowledge and understanding of the advantages, disadvantages for two changeover methods. • a confident grasp of a scenario where the methods could be used. 	2	<p style="text-align: center;">3-4 marks</p> <p>A good discussion, which shows:</p> <ul style="list-style-type: none"> • generally secure knowledge and understanding of the advantages, disadvantages of changeover methods. • a generally secure knowledge of a scenario where the methods could be used. 	1	<p style="text-align: center;">1-2 marks</p> <p>A basic discussion, which shows:</p> <ul style="list-style-type: none"> • some knowledge and understanding of changeover methods. • some grasp of a scenario where the method could be used. 		<p style="text-align: center;">0 marks</p> <p>Response not creditworthy or not attempted.</p>			
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Question	Answer	AO1	AO2	Total mark
6.	Describe the health issues related to human-computer interaction and their impact when using mobile and desktop devices.			
	<p>Indicative content</p> <p>Mobile devices: Research has shown that people who use smartphones in excess may experience personal, social and workplace problems. People who identify themselves as "addicts" exhibit signs that indicate depression, social isolation, social anxiety, shyness, impulsivity and low self-esteem. "Technology addiction" refers to addictive behaviour related to social media, excessive texting, information overload, online shopping, gambling, video gaming, online pornography and overall smartphone usage.</p> <p>Desktop and laptop devices: Working at a computer can cause back, neck and shoulder pains, headache, eyestrain and overuse injuries of the arms and hands. You can help avoid computer-related injuries with proper furniture, better posture and good working habits.</p> <p>Digital Eye Strain You can use the 20-20-20 rule to ease eye strain. Contributing factors are screen glare, bad lighting and improper viewing distance. To follow this rule, try to take a 20-second break every 20 minutes to look at something that's 20 feet away.</p> <p>Musculoskeletal problems A small 2017 study found a clear association between self-reported addiction to smartphone use and neck problems. Overuse of technology can also lead to repetitive strain injuries of the fingers, thumbs, and wrists. If you're feeling the pain of technology, you can reduce these issues by taking frequent breaks.</p> <p>Sleep Having electronic devices in the bedroom places temptation at your fingertips, and it can make switching off more difficult. Exposure to blue light that devices emit can suppress melatonin and interrupt your circadian clock. These effects can make it harder to fall asleep and result in you being less alert in the morning.</p> <p>Emotional issues Using social media can make you feel more connected to the world. But, comparing yourself to others can leave you feeling inadequate or left out. A recent study found that those with high social media use felt more socially isolated. The evidence suggests that social network use correlates with mental illness and well-being. If social media use makes you feel anxious or depressed, try cutting back to see if doing so makes a difference.</p>	6		6

Question	Answer		AO1	AO2	Total mark
	Band	AO1			
	3	<p>5-6 marks</p> <p>A very good discussion, which shows:</p> <ul style="list-style-type: none"> thorough knowledge and understanding of the health and social issues related to HCI a confident grasp linking these issues to mobile and desktop devices. 			
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Question	Answer	AO1	AO2	Total mark										
7.	Gruff understands that the term social media refers to a computer-based technology that facilitates the sharing of ideas, thoughts, and information through virtual networks and communities.													
(a)	Gruff would like to begin to use social media sites for business. Compare two sites that Gruff could use, considering at least two different functions for each site.													
	<p>Indicative content</p> <p>Facebook Posts Groups / pages Live streaming Reaction to posts Marketplace Messaging Reels Photo upload/tagging Adding friends Twitter Posts Polls Reaction to posts Photo upload Messaging Adding followers and following people Instagram Photo upload Reaction to photo Messaging Adding followers and following people</p> <table border="1"> <thead> <tr> <th>Band</th> <th>AO2</th> </tr> </thead> <tbody> <tr> <td>3</td> <td> <p>5-6 marks</p> <p>A very good comparison, which shows:</p> <ul style="list-style-type: none"> thorough knowledge and understanding of the functions available from specific social media sites a confident description of the functions </td> </tr> <tr> <td>2</td> <td> <p>3-4 marks</p> <p>A good comparison, which shows:</p> <ul style="list-style-type: none"> generally secure knowledge of the functions available from specific social media sites a generally secure understanding of the functions </td> </tr> <tr> <td>1</td> <td> <p>1-2 marks</p> <p>A basic comparison, which shows:</p> <ul style="list-style-type: none"> some knowledge and understanding of the functions available from specific social media sites some grasp of the functions </td> </tr> <tr> <td></td> <td> <p>0 marks</p> <p>Response not creditworthy or not attempted.</p> </td> </tr> </tbody> </table>	Band	AO2	3	<p>5-6 marks</p> <p>A very good comparison, which shows:</p> <ul style="list-style-type: none"> thorough knowledge and understanding of the functions available from specific social media sites a confident description of the functions 	2	<p>3-4 marks</p> <p>A good comparison, which shows:</p> <ul style="list-style-type: none"> generally secure knowledge of the functions available from specific social media sites a generally secure understanding of the functions 	1	<p>1-2 marks</p> <p>A basic comparison, which shows:</p> <ul style="list-style-type: none"> some knowledge and understanding of the functions available from specific social media sites some grasp of the functions 		<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>		6	6
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	(b) Gruff has seen stories in the press that some companies have encountered legal and ethical issues due to their use of social media.				
	(i)	Explain one legal problem that Gruff's business could face using social media.			
		<p>Indicative content</p> <p>Information Security Legal Risk Privacy IP Infringement Disparagement and Defamation Employment Law Issues Advertising Law Electronic Discovery and Evidence</p> <p>Award one mark for a limited response, for example:</p> <ul style="list-style-type: none"> Gruff's business would need to ensure they do not say anything untrue about another business in an online post as this could result in legal action being taken against Gruff's business. <p>Award two marks for a more developed response, for example:</p> <ul style="list-style-type: none"> Gruff's business would need to be careful not to say anything untrue about another business in an online post. This would be defamation and this could result in legal action being taken against Gruff's business. 		2	2
	(ii)	Explain one ethical problem that Gruff's business could face using a social media site.			
		<p>Award one mark for a limited response, for example:</p> <ul style="list-style-type: none"> Gruff's company would need to ensure that they do not advertise on any website that does not align with their own ethical beliefs. <p>Award two marks for a more developed response, for example:</p> <ul style="list-style-type: none"> Gruff's company would need to ensure that they do not advertise on any website that does not align with their own ethical beliefs. If they advertised on a podcast or website that had extreme views, this would then impact the company negatively. 		2	2

Question	Answer	AO1	AO2	Total mark												
8.	Kacper has bought a smart speaker to complement the other smart devices already in the house. Discuss the advantages and disadvantages linking all the smart devices to the smart speaker.															
	<p>Indicative concert</p> <p>Advantages</p> <ul style="list-style-type: none"> • Increased automation / Save time with automated tasks / Customisation • Help with productivity/efficiency / energy efficient if justified • Instant access / Access from elsewhere • Security if justified <p>Disadvantages</p> <ul style="list-style-type: none"> • Privacy issues • Portability • Understanding dialect/accents • Cost • Technical security threats • Compatibility / Different protocols / Setup and configuration • Internet reliance <table border="1"> <thead> <tr> <th>Band</th> <th>AO2</th> </tr> </thead> <tbody> <tr> <td>4</td> <td> <p>7-8 marks</p> <p>An excellent description which shows:</p> <ul style="list-style-type: none"> • thorough knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • a confident discussion of the advantages and disadvantages </td> </tr> <tr> <td>3</td> <td> <p>5-6 marks</p> <p>A very good discussion, which shows:</p> <ul style="list-style-type: none"> • a very good knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • a confident discussion of the advantages and disadvantages </td> </tr> <tr> <td>2</td> <td> <p>3-4 marks</p> <p>A good discussion, which shows:</p> <ul style="list-style-type: none"> • generally secure knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • a generally secure understanding of the advantages and disadvantages </td> </tr> <tr> <td>1</td> <td> <p>1-2 marks</p> <p>A basic discussion, which shows:</p> <ul style="list-style-type: none"> • some knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • some grasp of the advantages or disadvantages </td> </tr> <tr> <td></td> <td> <p>0 marks</p> <p>Response not creditworthy or not attempted.</p> </td> </tr> </tbody> </table>	Band	AO2	4	<p>7-8 marks</p> <p>An excellent description which shows:</p> <ul style="list-style-type: none"> • thorough knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • a confident discussion of the advantages and disadvantages 	3	<p>5-6 marks</p> <p>A very good discussion, which shows:</p> <ul style="list-style-type: none"> • a very good knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • a confident discussion of the advantages and disadvantages 	2	<p>3-4 marks</p> <p>A good discussion, which shows:</p> <ul style="list-style-type: none"> • generally secure knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • a generally secure understanding of the advantages and disadvantages 	1	<p>1-2 marks</p> <p>A basic discussion, which shows:</p> <ul style="list-style-type: none"> • some knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • some grasp of the advantages or disadvantages 		<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>		8	8
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1	<p>1-2 marks</p> <p>A basic discussion, which shows:</p> <ul style="list-style-type: none"> • some knowledge the advantages and disadvantages linking all the smart devices to the smart speaker • some grasp of the advantages or disadvantages 															
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>															

Question	Answer	AO1	AO2	Total mark												
9.	Describe Digital User Experience (DUX) in terms of: <ul style="list-style-type: none"> • design • navigability • performance • efficiency • cross-platform compatibility 															
	<p>Indicative content</p> <p>Design: is about understanding the context of use, understanding what developers need to complete their tasks, underlying technology, and integration points, and focusing on how developers feel while using a product or service.</p> <p>Navigability: How systems are designed to be logical, sensible and clear.</p> <p>Performance: Understand how application performance impacts a business.</p> <p>Efficiency: Measures the speed and how quickly users can accomplish tasks once they are familiar with the design of an interface. Think of it as the number of keystrokes or clicks it takes a user to complete a task.</p> <p>Cross-platform compatibility: Ensuring each app runs, looks, and is performant across every available platform.</p> <table border="1"> <thead> <tr> <th>Band</th> <th>AO1</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">4</td> <td> <p style="text-align: center;">8-9 marks</p> An excellent description which shows: <ul style="list-style-type: none"> • thorough knowledge of the stages of DUX • a confident discussion of the different stages of DUX </td> </tr> <tr> <td style="text-align: center;">3</td> <td> <p style="text-align: center;">6-7 marks</p> A very good discussion, which shows: <ul style="list-style-type: none"> • thorough knowledge of the stages of DUX • a confident discussion of the different stages of DUX </td> </tr> <tr> <td style="text-align: center;">2</td> <td> <p style="text-align: center;">3-5 marks</p> A good discussion, which shows: <ul style="list-style-type: none"> • generally secure knowledge of the stages of DUX • a generally secure understanding of the different stages of DUX </td> </tr> <tr> <td style="text-align: center;">1</td> <td> <p style="text-align: center;">1-2 marks</p> A basic discussion, which shows: <ul style="list-style-type: none"> • some knowledge of the use of the stages of DUX • some grasp of the different stages of DUX </td> </tr> <tr> <td></td> <td> <p style="text-align: center;">0 marks</p> Response not creditworthy or not attempted. </td> </tr> </tbody> </table>	Band	AO1	4	<p style="text-align: center;">8-9 marks</p> An excellent description which shows: <ul style="list-style-type: none"> • thorough knowledge of the stages of DUX • a confident discussion of the different stages of DUX 	3	<p style="text-align: center;">6-7 marks</p> A very good discussion, which shows: <ul style="list-style-type: none"> • thorough knowledge of the stages of DUX • a confident discussion of the different stages of DUX 	2	<p style="text-align: center;">3-5 marks</p> A good discussion, which shows: <ul style="list-style-type: none"> • generally secure knowledge of the stages of DUX • a generally secure understanding of the different stages of DUX 	1	<p style="text-align: center;">1-2 marks</p> A basic discussion, which shows: <ul style="list-style-type: none"> • some knowledge of the use of the stages of DUX • some grasp of the different stages of DUX 		<p style="text-align: center;">0 marks</p> Response not creditworthy or not attempted.	9		9
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	<p style="text-align: center;">0 marks</p> Response not creditworthy or not attempted.															

Question	Answer	AO1	AO2	Total mark												
10.	Masmaat is a junior doctor working in the NHS. Discuss how artificial intelligence (AI) can be used to help doctors such as Masmaat.															
	<p>Indicative concert</p> <p>AI helping doctors</p> <ul style="list-style-type: none"> • Treatment recommendations • Testing doctors • Doctors learning to interact with AI machines. • Safety – AI ensuring treatment chosen fits with all data in patient’s medical file • Adherence checking • Speech recognition for input • Automation tools 		10	10												
	<table border="1"> <thead> <tr> <th>Band</th> <th>AO2</th> </tr> </thead> <tbody> <tr> <td></td> <td> <p>9-10 marks</p> <p>An excellent description which shows:</p> <ul style="list-style-type: none"> • thorough knowledge of the use of AI to help doctors • a confident discussion of the use of AI elsewhere in healthcare </td> </tr> <tr> <td></td> <td> <p>6-8 marks</p> <p>A very good discussion, which shows:</p> <ul style="list-style-type: none"> • thorough knowledge of the use of AI to help doctors • a confident discussion of the use of AI elsewhere in healthcare </td> </tr> <tr> <td></td> <td> <p>4-5 marks</p> <p>A good discussion, which shows:</p> <ul style="list-style-type: none"> • generally secure knowledge of the use of AI to help doctors • a generally secure understanding of the use of AI elsewhere in healthcare </td> </tr> <tr> <td></td> <td> <p>1-3 marks</p> <p>A basic discussion, which shows:</p> <ul style="list-style-type: none"> • some knowledge of the use of AI to help doctors • some grasp of the use of AI elsewhere in healthcare </td> </tr> <tr> <td></td> <td> <p>0 marks</p> <p>Response not creditworthy or not attempted.</p> </td> </tr> </tbody> </table>	Band	AO2		<p>9-10 marks</p> <p>An excellent description which shows:</p> <ul style="list-style-type: none"> • thorough knowledge of the use of AI to help doctors • a confident discussion of the use of AI elsewhere in healthcare 		<p>6-8 marks</p> <p>A very good discussion, which shows:</p> <ul style="list-style-type: none"> • thorough knowledge of the use of AI to help doctors • a confident discussion of the use of AI elsewhere in healthcare 		<p>4-5 marks</p> <p>A good discussion, which shows:</p> <ul style="list-style-type: none"> • generally secure knowledge of the use of AI to help doctors • a generally secure understanding of the use of AI elsewhere in healthcare 		<p>1-3 marks</p> <p>A basic discussion, which shows:</p> <ul style="list-style-type: none"> • some knowledge of the use of AI to help doctors • some grasp of the use of AI elsewhere in healthcare 		<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>			
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	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>															

Question			Specification content (main focus)					Part	Total marks	AO1 marks	AO2 marks
			Section								
			2.1.1	2.1.2	2.1.3	2.1.4	2.1.5				
1.	(a)		3				a	3	3		
	(b)		2				a	2		2	
2.	(a)		4				b	4	4		
	(b)		2				b	2	2		
3.	(a)			3			a	3	3		
	(b)			3			a	3	3		
4.	(a)			4			c	4	4		
	(b)		6				c	6	6		
5.	(a)				4		d	4	4		
	(b)				6		c	6	6		
6.						6	a	6	6		
7.	(a)					6	a	6		6	
	(b)					4	c	4		4	
8.			8				c	8		8	
9.						9	c	9	9		
10.				10			d	10		10	

Total marks	25	20	10	15	10		80	50	30
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