

Cambridge Technicals

IT

Unit 1: Fundamentals of IT

Level 3 Cambridge Technical in IT
05838 – 05842 & 05877

Mark Scheme for June 2025

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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MARKING INSTRUCTIONS

PREPARATION FOR MARKING

RM ASSESSOR

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor Online Training: OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are available in RM Assessor
3. Log-in to RM Assessor and mark the **required number** of practice responses (“scripts”) and the **required number** of standardisation responses.

MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the RM Assessor 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone, email or via the RM Assessor messaging system.

5. **Crossed-Out Responses**

Where a candidate has crossed out a response and provided a clear alternative then the crossed-out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed-out response where legible.

Rubric Error Responses – Optional Questions

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM Assessor, which will select the highest mark from those awarded. *(The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)*

Multiple-Choice Question Responses

When a multiple-choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

When a question requires candidates to select more than one option/multiple options, then local marking arrangements need to ensure consistency of approach.

Contradictory Responses

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only one mark per response)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of

responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

Short Answer Questions **(requiring a more developed response, worth two or more marks)**

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space).

Longer Answer Questions **(requiring a developed response)**

Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there, then add the annotation 'SEEN' to confirm that the work has been seen and mark any responses using the annotations in section 11.
7. There is a NR (**No Response**) option. Award NR (No Response):
 - if there is nothing written at all in the answer space
 - OR if there is a comment which does not in any way relate to the question (e.g., 'can't do', 'don't know')
 - OR if there is a mark (e.g., a dash, a question mark) which is not an attempt at the question.

Note: Award 0 marks – for an attempt that earns no credit (including copying out the question).

8. The RM Assessor **comments box** is used by your Team Leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**
9. Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.
10. For answers marked by levels of response: Not applicable in F501
To determine the level – start at the highest level and work down until you reach the level that matches the answer

To determine the mark within the level, consider the following

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

11. Annotations

Annotation	Meaning
	Tick – correct answer
	Cross – incorrect answer
	Level 1
	Level 2
	Level 3
	Benefit of doubt (This does count as a mark – so do not ‘tick’ as well)
	Benefit of doubt not given
	Blank Page
	Highlight
	Too vague
	Not answered question
	Repeat
 or 	Noted but no credit given

12. Subject-specific Marking Instructions

INTRODUCTION

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper
- the mark scheme.

You should ensure that you have copies of these materials.

You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet **Instructions for Examiners**. If you are examining for the first time, please read carefully **Appendix 5 Introduction to Script Marking: Notes for New Examiners**.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

Question			Answer	Marks	Guidance
Section A					
1		B	Printer	1	
2		D	Mainframe	1	
3		B	Decimal	1	
4		C	Laser	1	
5		B	Debugger	1	
6		C	Large main memory required	1	
7		B	Manage and monitor network devices	1	
8		A	Application	1	
9		D	Simplifies back up processes	1	
10		C	Lose concentration	1	
11		A	Formal written electronic communication that can be sent to more than one person at the same time	1	
12		C	Privacy Screen	1	
13		B	Help desk	1	
14		A	Change management	1	
15		C	Permissions	1	

Question			Answer	Marks	Guidance
Section B					
16	(a)		Up two marks for a description of the purpose of a motherboard e.g.: • To allow components/devices (1) to communicate/work/interact with each other (1) • To distribute power (1) to the different parts/components of a computer (1) • To link the components together (1) for data to be transferred (1) • To provide ports (1) for cabling (1) • Any other suitable response	2	Read the whole response and mark to the candidates' advantage: • One mark for purpose of motherboard • One mark for expansion
16	(b)		Two from e.g.: • 3.5mm jack (1) • Display (1) • Firewire (1) • HDMI (1) • Network/Ethernet /LAN (1) • USB (1) • Any other suitable response	2	Do not accept • legacy ports as this is an upgraded PC e.g.: ○ PS/2 ○ Serial/ SATA • Cards as the ports are on these e.g.: ○ Graphics card ○ Sound card ○ NIC

Question			Answer	Marks	Guidance
Section B					
16	(c)		Up to two marks for each difference e.g.: • An HDD is magnetic memory (1) which is slower to access than the SSD flash memory (1) • An SSD has no moving parts (1) which means it's more robust than an HDD (1) • An SSD is more portable than an HDD (1) due to the HDD having physical disks (1) • SSD is faster to load/start up than an HDD (1) so the OS can be stored on the SSD for start-up (1) • SSDs are quieter than HDDs (1) making the machines more suitable for home environment (1) • Any other suitable response	4	Read the whole response and mark to the candidates' advantage: • One mark for difference identified • One mark for expansion Accept equivalent terminology Do not accept • Reference to cost • Faster unless qualified

Question			Answer	Marks	Guidance
16	(d)		One mark for identified method Up to two marks for explanation of how comply with legislation e.g.: • Overwrite the data/Data/ Electromagnetic/ wiping (1st) before recycling the component (1) so that the data no longer exists (1) • <u>Physical</u> destruction (1st) so that the device/component is destroyed/broken (1) and data cannot be accessed at all (1) • Recycle (1) by <u>permanently</u> deleting the data (1) so that it cannot be used again (1) • Use e-waste recycling company (1) who securely dispose of the components (1) so the data is not accessible (1) • Any other suitable response	3	Read the whole response and mark to the candidates' advantage: • First mark for method • Two marks for suitable expansion Accept equivalent terminology/ examples of

Question			Answer	Marks	Guidance
17	(a)		Up to two marks for each characteristic described e.g.: • Already installed in most places (1) as it has been used for home phone lines (1) • Flexibility/Malleability (1) which allows cables to be installed easily/more conveniently/less chance of breaking (1) • Good conductor of electricity (1) allowing for data to transfer along it easily (1) • Have ability to carry contended signals (1) allows users to share a connection (1) • It costs less than fibre optic (1) so it's more affordable to connect homes (1) • It is a wired connection (1) which means it receives less interference than wireless (1) • Strong physically (1) so the chances of breakage are low (1) • Any other suitable response	4	Read the whole response and mark to the candidates' advantage: • One mark for characteristic • One mark for suitable reasoning how to connect Accept equivalent terminology NB- question could be connect to house OR within a house Do not accept: • Cost – unless qualified

Question			Answer	Marks	Guidance
17	(b)		Up to two marks for each characteristic described e.g.: • Can carry both internet and phone calls (1) at the same time with no loss of quality (1) • Has a high capacity/bandwidth (1) which does not degrade over extended distances (1) • Has a higher speed of transfer than copper wire (1) so downloading and uploading work data will be quicker (1) • Immune to electromagnetic interference (1) so signal not disrupted by other wireless signals (1) • Uses light to transmit data (1) This increases the speed of data transfer/ file uploads (1) • Any other suitable response	4	Read the whole response and mark to the candidates' advantage: • One mark for characteristic • One mark for suitable reasoning why install Accept equivalent terminology Do not accept: • Cost – unless qualified NB- question could be connect to house OR within a house

Question			Answer	Marks	Guidance
17	(c)		Up to two marks for one difference explained e.g.: • Binary system only uses digits 1 and 0 (1) Metric system uses digits between 0-9 (1) • Metric is understood by humans (1) whilst binary is understood by computers (1) • Metric system uses Kilo/Mega/Giga/Tera/Peta (1) Binary uses Kibi/Mebi/Gibi/Tebi/Pebi (1) • The binary system groups data in 1024 (1) whilst the metric system rounds numbers to the nearest 1000 (1) • The metric system is built on the base 10 system (1) while the binary system is based on the base 2 system (1) • Any other suitable response	2	Read the whole response and mark to the candidates' advantage: • One mark for comment on binary system • One mark for comment on metric system Accept equivalent terminology

Question			Answer	Marks	Guidance
18	(a)		Up to two marks for a characteristic described e.g.: - Does not require payment (1) for a version to be used/downloaded (1) - Legal restrictions in use (1) such as only being allowed for non- commercial/ limits of distribution (1) - May contain advertisements (1) as these are used to finance the development (1) - May have component restrictions (1) that can be unlocked on a paid version (1) - The developer had the control (1) over how it can be modified (1) - The source code is not distributed (1) as this is still locked by the developer (1) - Any other suitable response	2	Read the whole response and mark to the candidates' advantage: One mark for characteristic One mark for suitable expansion Accept equivalent terminology

Question			Answer	Marks	Guidance
18	(b)		Up to two marks for a common software fault described e.g.: • Bug/Syntax/Logical/code error (1) that stop codes from executing (1) • Human error (1) leading to mistakes in the code (1) • Performance bottlenecks (1) leading to high resource usage (1) • Poor UI/UX design (1) which means the system is not easy to use (1) • The computer can get stuck in a loop of reboots (1) because the next command is incorrect when the code was written (1) • The computer will freeze/become unresponsive/crash (1) due to a command not being understood/too much data (1) • Any other suitable response	2	Read the whole response and mark to the candidates' advantage: • One mark for fault • One mark for suitable expansion Accept equivalent terminology Do not accept • Error – TV on its own • Virus- not relevant to context of question

Question			Answer	Marks	Guidance
18	(c)		Two from e.g.: • Baseline results (1) • Event viewer (1) • Incident report (1) • Logs (1) • Memory dump (1) • Performance monitoring reports (1) • Support/ archived tickets (1) • Technical manual (1) • Test results (1) • Any other suitable response	2	Accept equivalent terminology NB: Document does not need to be a printed document
19	(a)		Up to two marks for an explanation of interception e.g.: • Data packets on a network (1) are copied before they reach their destination (1) • The monitoring of data on network/system (1) so that it can be stolen/ manipulated/ deleted (1) • The unauthorised access of/interfering with data (1) during transmission across a network (1) • Catching/stealing a data file (1) while it is being transferred (1) • Any other suitable response	2	Read the whole response and mark to the candidates' advantage: • One mark for unauthorised accessing data • One mark for during transit Accept equivalent terminology

Question			Answer	Marks	Guidance
19	(b)		Up to two marks an explanation of eavesdropping e.g.: - Monitoring of/listening to communications (1) by a third party (1) - The real-time interception (1) of private communication such as a video conference call (1) - Use of networking monitoring software (1) to listen to the data being transmitted (1) - Any other suitable response	2	Read the whole response and mark to the candidates' advantage: One mark for unauthorised/passive access One mark for monitoring of communication Accept equivalent terminology
19	(c)		Up to two marks an explanation of how a firewall protects stored data e.g.: - Checks all outward data from a network (1) blocking connections that could take data (1) - Examines all traffic coming into a network (1) and will block suspected programs/ malicious software that could steal data (1) - Provide secure remote access (1) by enforcing security policies (1) - Any other suitable response	2	Read the whole response and mark to the candidates' advantage: One mark for saying preventing unauthorised access One mark for saying how prevention happens Accept equivalent terminology Do not accept - Reference to stop virus

20*		Indicative content Advantages • Cost-Effective Marketing - social media promotions can be more affordable than traditional advertising methods. ◦ Organic adverts -posting content on your page/account to reach limited audience. (Free but only followers, #audiences, shared posts) ◦ Paid adverts-sponsored contents to reach wider audience (not just followers) • Direct Customer Engagement – You can interact with potential users, answer questions, and build a loyal community. • Call to actions – You can include links to purchase directly or via a website. • Targeted Advertising – Platforms like Facebook, Instagram, and LinkedIn allow precise targeting based on demographics, interests, and behaviours. • Virality Potential – Engaging content can be shared widely, creating organic buzz and boosting visibility without extra marketing spend. • Wide reach and visibility - social media connects you with a large audience, making it easier to raise awareness about your product. • Any other suitable response Disadvantages	10	Level 3 [7-10 marks] At the top of the level a thorough discussion, which shows detailed understanding: • Explained at least one advantage and one disadvantage of using social media to promote the device and app. • Made some judgements within the context provided • Subject specific terminology and knowledge are clearly used to support and inform the explanations. • There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 2 [4-6 marks] At the top of the level an adequate discussion, which shows sound understanding: • Described at least one advantage and/or disadvantage of using social media to promote the device and app • Made some judgements within the context provided although these may be superficial in nature. • Some subject specific terminology and knowledge has been used. • There is a line of reasoning presented with some structure. The information presented is for the most part relevant and supported by some evidence. Level 1 [1-3 marks]
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Question			Answer	Marks	Guidance
			- Algorithm Dependence – Platforms regularly change their algorithms, affecting content visibility and engagement rates. - Cost- Need to employ designated staff to manage advertisement campaign, influencers, content creation, payment of advert placements. - High Competition – Many brands compete for attention, making it challenging to stand out. - Limited Organic Reach – Without paid promotion, organic reach can be restricted, making it harder to gain traction. - Negative Feedback & PR Risks – Public reviews and comments can influence brand perception, Trolls can deliberately post negative comments - - Negative reviews/responses can be posted - Social media adverts can be ignored - Time-Consuming – Maintaining an active social media presence requires consistent content creation, engagement and monitoring. - Any other suitable response		At the top of the level a basic justification, which shows limited understanding: Identified generic points using social media to promote a device or app. - At the bottom of the mark band, a single point may have been simply provided. - Subject specific terminology may be limited or missing. - Information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear 0 marks = Nothing worthy of credit.

Question			Answer	Marks	Guidance
21	(a)		Up to two marks for advantage to Riley explained e.g.: • Can network more easily with other professionals (1) so that new ideas/issues are shared more easily (1) • Differentiate from other members of staff (1) which will allow Riley to get better job opportunities (1) • Professional recognition of their knowledge (1) which allows Riley to get better jobs (1) • Riley can gain insights into industry trends (1) which could be useful in the job role (1) • Shows they have a clear career development path (1) as different levels of qualification can be/have been attained (1) • Some qualifications such as CISCO/CompTIA (1) can lead to better prospects/higher salaries (1) • Any other suitable response	2	Read the whole response and mark to the candidates' advantage: • One mark for identified advantage to worker • One mark for suitable expansion Accept equivalent terminology

Question			Answer	Marks	Guidance
21	(b)		Up to two marks for advantage to IT company explained e.g.: - Assurance of the ability of a potential employee (1) so that IT Company know what they are hiring (1) - By developing staff through training (1) staff at IT Company may feel more valued (1) - Company does not need to train Riley (1) which will save them money/lower training costs (1) - Higher staff retention/recruitment rates (1) by company showing investing in staff (1) - May provide a competitive advantage over competitors (1) due to qualified workers creating better products (1) - Any other suitable response	2	Read the whole response and mark to the candidates' advantage: One mark for identified advantage to the company One mark for suitable expansion Accept equivalent terminology

Question		Answer	Marks	Guidance
22	(a)*	Indicative content - Accountability & Performance Tracking - Defined procedures help monitor employee performance remotely - Ensure job responsibilities are met efficiently - Protect company reputation - Better Communication and Collaboration - Clear procedures support smoother team coordination. - Staff can share work and understand what has been done/needs to be done, e.g. code comments - Sharing of work/data is carried out using company tools and processes. - Contact with clients is consistent and clear - Consistency & Quality Control - Ensure that employees follow uniform practices, maintaining high-quality output, reduces errors. - Enhanced Security & Compliance - Cybersecurity risks when remote working - Outline data protection measures to prevent breaches and ensure compliance with company policies. - Who can access devices at home - Shared facilities/devices at home - Reduces risks of legal issues e.g. accessing/sharing client data, personal data incorrectly - Improved Productivity & Organisation - Streamline workflows, allowing remote employees to focus on tasks without confusion. - Risk Management - Minimise errors, - Reduce security risks – where/when you can work. - Any other suitable response	10	Level 3 [7-10 marks] At the top of the level a thorough discussion, which shows detailed understanding: Explained more than one reason for using Standing Operating Procedures when working from home. - Made some judgements within the context provided - Subject specific terminology and knowledge are clearly used to support and inform the explanations. - There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 2 [4-6 marks] At the top of the level an adequate discussion, which shows sound understanding: Described at least one reason for using Standing Operating Procedures when working from home. - Made some judgements within the context provided although these may be superficial in nature. Some subject specific terminology and knowledge has been used. - There is a line of reasoning presented with some structure. The information presented is for the most part relevant and supported by some evidence. Level 1 [1-3 marks] At the top of the level a basic justification, which shows limited understanding: Identified generic points about using Standing Operating Procedures. - At the bottom of the mark band, a single point may have been simply provided. - Subject specific terminology may be limited or missing. - Information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear 0 marks = Nothing worthy of credit.

Question			Answer	Marks	Guidance
22	(b)		Up to two marks for each explanation of how word processing could be used e.g.: • Can be used to type (1) and edit the new policy (1) • Ensure contains no errors (1) by spell/grammar checking (1) • Insertion of graphics (1) to help illustrate points/processes (1) • Insertion of links/contact details (1) to allow anonymous reporting (1) • Tools such as track changes (1) can be used to make changes to the policy as it is created (1) • Use of headings/different font sizes (1) to break the document up/make easier to navigate (1) • Using shared access (1) can allow collaboration between staff in the company (1) • Any other suitable response	4	Read the whole response and mark to the candidates' advantage: • One mark for use of word processor • One mark for suitable expansion Accept equivalent terminology

Question			Answer	Marks	Guidance
22	(c)		Up to two marks for each explanation of improved security measures e.g.: • Back up data regularly (1) so that any lost data can be reinstated (1) • Biometric login (1) on the laptop/company server rooms to enhance access security (1) • CCTV to monitor (1) access to the information stored in the server rooms (1) • Create/use <u>strong</u> password policy (1) to reduce chance of unauthorised access (1) • Implementation of 2FA (1) to access the data/information with a second method of ID confirmation (1) • Introducing policies (1) that state who can view or edit the data and information (1). • Regular audits of processes/procedures (1) to check for any gaps in the system (1) • Regular software updates (1) to ensure vulnerabilities in systems are patched (1) • Strong/Tiered levels of access (1) to ensure that only authorised people can see the information (1) • Train members of staff (1) so that they know and understand what they can do with the data (1) • Use a firewall (1) to filter/block harmful data entering the system (1) • Use encryption (1) to secure the data in storage/transit (1) • Any other suitable response	4	Read the whole response and mark to the candidates' advantage: • One mark for security method • One mark for suitable expansion in context Accept equivalent terminology DO NOT ACCEPT • Use password and usernames - not relevant to context as already would be needed to work from home – question is about improving security

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