Cambridge Technicals

IT

Unit 1: Fundamentals of IT

Level 3 Cambridge Technical in IT

05838 – 05842 & 05877

Mark Scheme for June 2024

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 posted on the RM Cambridge Assessment Support Portal http://www.rm.com/support/ca

3. Log-in to RM Assessor and mark the **required number** of practice responses ("scripts") and the **number of required** standardisation responses.

   YOU MUST MARK 5 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.

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 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 or by email.

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 questions 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 lined pages 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 an annotation** to confirm that the work has been seen.

7. Award No Response (NR) if:
   - there is nothing written in the answer space

   Award Zero '0' if:
   - anything is written in the answer space and is not worthy of credit (this includes text and symbols).

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.**

   If you have any questions or comments for your team leader, use the phone, the RM Assessor messaging system, or e-mail.

9. Assistant Examiners will email a brief report on the performance of candidates to your Team Leader (Supervisor) by the end of the marking period. Your report should contain notes on particular strength 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:

    a. **To determine the level** – start at the highest level and work down until you reach the level that matches the answer
    b. **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
L1	Level 1
L2	Level 2
L3	Level 3
BOD	Benefit of doubt (This **does** count as a mark – so do not 'tick' as well)
NBOD	Benefit of doubt not given
BP	Blank Page
	Highlight
VG	Too vague
NAQ	Not answered question
REP	Repeat
SEEN 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
1		**B**	Internal	1	
2		**A**	Binary	1	
3		**A**	Email	1	
4		**C**	Multimedia	1	
5		**D**	VOIP	1	
6		**A**	Software Freeze	1	
7		**D**	SMTP	1	
8		**C**	Server Virtualisation	1	
9		**A**	Default Gateway	1	
10		**D**	Social Networking	1	
11		**D**	Time management	1	
12		**D**	Security of information	1	
13		**D**	Obtaining confidential data	1	
14		**D**	Shredding	1	
15		**C**	Overwrite Data	1	

Section B

Question			Answer	Marks	Guidance
16	**(a)**		Up to **two** from e.g.: • Touch screen (1) • Microphone (1) • (Virtual) Keyboard (1) • Stylus (1) • **Any other valid suggestion**	2	**One mark per input device used for placing order using tablet computer** Do not accept: • Camera, Scanner as not relevant to context • Pen too vague
	(b)		Up to **two** marks for one **benefit** e.g. • Portable (1st) so can use it anywhere in the bar/warehouse (1) • Small (1st) so easily locked away (1) • **Any other valid suggestion** Up to **two** marks for one **limitation** e.g. • Virtual keyboard (1st) difficult to use to place orders if not accurate when touched (1) • Small screen (1st) difficult to see some items on the order screen (1) • Use a battery (1st) which can run out causing ordering issues (1) • **Any other valid suggestion**	4	**Read whole response and mark to candidates' advantage:** • First mark for benefit/limitation identified • Second mark for description of use *Accept answers written in reverse order i.e.* • *can be used anywhere in the bar because it is (1) portable (1st)* *Accept equivalent terminology* *Do not accept:* • Expansions referring to taking orders from customers

Question			Answer	Marks	Guidance
	(c)		Up to **two** marks for each communications hardware e.g. • Wireless Access Point (1st) to allow wireless devices to connect to a wired network (1) • Hub (1st) to send the data one LAN / WAN (1) • Switch (1st) to allow tablets to be connected to the LAN and WAN (1) • Modem (1st) to connect the LAN to the internet/WAN (1) • Router (1st) to connect devices on the LAN/WAN (1) • Fibre optic/Copper cable (1st) to connect the LAN to the WAN/internet (1) • **Any other valid suggestion**	4	**Read whole response and mark to candidates' advantage:** • First mark for identified communication hardware • Second mark for description of use *Accept answers written in reverse order i.e.* • *To connect the LAN to the internet (1) a modem is needed (1st)* Do not accept: • Ethernet cables – in the question • Connectivity methods e.g. ASDL, ISDN,
	(d)		Capacity one from: • 32 (1) Correct unit of measurement: • GB/Gigabytes (1)	2	Question asks for **minimum** storage for taking and storing images
17			**One** from: • Bespoke software (1) • Application software (1) • Closed Source (1) • Open Source (1) • Productivity software (1) • Database (1) • Spreadsheet (1) • **Any other valid suggestion**	1	Accept brand names

Question			Answer	Marks	Guidance
18			Up to **two** marks for one **benefit** e.g. • Supports multiple users (1st) so anyone with permission can log on to any computer (1) • Supports different permission levels (1st) allowing different job roles to share machinery (1) • Reduced hardware requirements (1st) as machines can be shared/used when needed (1) • Multiprocessor OS will support multiple cores (1st) which can result in faster performance speeds (1) • Reduces disruption (1st) if one device is broken other devices can still be used by all employees (1) • **Any other valid suggestion** Up to **two** marks for one **limitation** e.g. • Only one user can access a computer at a time (1st) which may reduce workflow (1) • Creating multiple accounts/users can increase security risk (1st) with data being visible by more than one person (1) • With devices being accessed on one network a virus can spread quickly (1st) impacting all the users/devices (1) • **Any other valid suggestion**	4	**Read whole response and mark to candidates' advantage:** • First mark for identified benefit/limitation • Second mark for description of use *Accept answers written in reverse order i.e.* • *Any user with permissions can access the computer (1) as multiple users are supported (1st)* *Accept equivalent terminology*

Question			Answer	Marks	Guidance
19			Up to **three** marks for one **advantage** e.g. • Users can connect remotely (1) so there is no need to travel to the meeting (1) which is a better use of their time (1) • Saves on travel time (1) is better for the company (1) as it reduces costs (1) • Body language can be used (1) which allows points to be emphasised/explained (1) so that they are more easily understood (1) • **Any other valid suggestion** Up to **three** marks for one **disadvantage** e.g. • Requires internet (1) which may not be reliable (1) making the meeting impossible/difficult (1) • A weak Wi-Fi signal (1) can clause the call to drop out/jump (1) which will make communication difficult (1) • **Any other valid suggestion**	6	**Read whole response and mark to candidates' advantage.** • One mark for advantage/disadvantage • Two marks for expansion *Accept equivalent terminology*
20	**(a)**		Up to **two** marks for each advantage e.g. • Increased server efficiency (1st) as resources are allocated for one purpose only (1) • Reduced chance of sending confidential documents (1st) as files stored on server with no internet access (1) • Increased security (1st) as the main file server is isolated from the internet reducing virus risk (1) • If mail server goes down (1st) then the main file server will still be accessible (1) • **Any other valid suggestion**	4	**Read whole response and mark to candidates' advantage.** • First mark for advantage identified • Second mark for description *Accept answers written in reverse order i.e.* • *Files are stored on a server with no internet access (1) which reduces risks of virus being downloaded (1st)* *Accept equivalent terminology*

| 20 | (b)* | **Indicative Content**
Network could be Wired, Wireless or combination of both
Justification may include comparisons with other topologies
<u>Topologies/ Methods</u>
• Client server/ Domain Name Server (DNS)
• Bus
• Star
• Ring
• Mesh
• Wireless
• **Any other valid suggestion**

Justifications
• Shared resources which can reduce costs
• Increased security from central server management
• Easy of updates from central server
• Simplicity to set up/understand/manage
• Cost effective due to minimal/No cabling
• Low latency of data transfer
• Central storage so can access data from any location on network, allows hot desking
• **Any other valid suggestion**

Hardware:
• Wireless Access Points
• Ethernet cables
• Hybrid devices/Modem/Router
• Network Interface Cards (NICs**)**
• Repeaters/ Wireless extenders
• Switch/Hub
• **Any other valid suggestion** | 10 | **Level 3 [7-10 marks]**
At the **top** of the level a **thorough** justification, which shows **detailed** understanding:
• **Explained more than one** relevant point
• Subject specific terminology, including reference. to appropriate hardware will be **clearly** used to support and inform the response.
• *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** justification, which shows **sound** understanding:
• **Described** at least one relevant point
• **some** use of subject specific terminology. including **some** reference to hardware is included in the response.
• There is a line of reasoning presented that has some structure but may be superficial in detail.

Level 1 [1-3 marks]
At the **top** of the level a **basic** justification, which shows **limited** understanding:
• identification of generic points
• limited use of subject terminology including limited reference of hardware.

0 marks
Answer is **not** worthy of credit. |

Question			Answer	Marks	Guidance
20	**(c)**		Up to **two** marks for each advantage e.g. • Reduced learning time (1st) for new employees (1) • Business continuity (1st) if the usual person who updates leaves (1) • Steps are clear (1st) so the updates will be consistent (1) • Business processes are more efficient (1st) as steps followed are pre- defined (1) • Reduced risk of errors occurring during update (1st) as consistent processes are used each time (1) • Can trace back errors more easily (1st) as the steps followed will be consistent (1) • **Any other valid suggestion**	6	**Read whole response and mark to candidates' advantage.** • First mark per advantage identified • Second mark for description *Accept answers written in reverse order i.e.* • *Because the steps to be followed are pre-defined (1) the business processes are more efficient (1st)* *Accept equivalent terminology*
	(d)		Up to **two** marks for each barrier to communication described e.g. • Language (1st) as the technicians may not speak the same language as each other (1) • Distraction (1st) as technicians may lose focus on what is they are doing due to what is happening in the warehouse (1) • Noise (1st) from the activities in the warehouse could make it difficult to hear/speak (1) • Hearing impairment (1st) could cause difficulty in hearing/understanding what is being communicated in warehouse (1) • **Any other valid suggestion**	4	**Read whole response and mark to candidates' advantage.** • First mark per barrier identified • Second mark for description *Accept answers written in reverse order i.e.* • *Warehouses are busy environments (1) which could cause people to be distracted and not communicate properly (1st)* *Accept equivalent terminology* Do not accept: • Reference to technology issues.

Question			Answer	Marks	Guidance
21	**(a)**		Up to **two** marks for each personal attribute described e.g. - Dependency (1ˢᵗ) so that others know they will do the job properly (1) - Determination (1ˢᵗ) to continue with a job even if there are errors/issues arising (1) - Independence (1ˢᵗ) when working on their own the technician may need to make their own decisions and not ask someone else all the time (1) - Planning & organisational skills (1ˢᵗ) to complete the job on time as they have all the equipment they need (1) - Problem solving (1ˢᵗ) when working through problems that they are trying to fix (1) - Punctuality (1ˢᵗ) so that the arrive on time for the jobs that they are allocated (1) - Respect (1ˢᵗ) as others will be willing to work with them (1) - Self-motivation (1ˢᵗ) when working on own to fix problems (1) - Team working (1ˢᵗ) when working with other technicians and staff to solve any issues/problems (1) - Time management (1ˢᵗ) so that downtime of the warehouse machines is kept to a minimum (1). - Written, numerical & verbal (1ˢᵗ) to ensure that they communicate issues/solutions fully to other staff (1) **Any other valid suggestion**	4	**Read whole response and mark to candidates' advantage.** - First mark for personal attribute identified - Second mark for description *Accept answers written in reverse order i.e.* *Problems could come up when updating machines (1) so technicians may need to solve the problem to complete the update (1ˢᵗ)* *Accept equivalent terminology* ***Do not accept*** - Leadership as not relevant to context

Question			Answer	Marks	Guidance
	(b)		Up to **two** marks for one **benefit to the technician** described e.g. • Technician can gain insights into industry trends (1) which could be useful in the job role (1) • The technician's knowledge/education/qualifications can be developed (1) by taking part of organisation events (1) • Networking with other organisation members (1) can lead to other job offers (1) • **Any other valid suggestion**	2	**Read whole response and mark to candidates' advantage.** 　• First mark for benefit to the **IT Technician** (1) 　• Second mark description *Accept equivalent terminology* ***Do not accept*** 　• Protecting rights/legal issue

21	(c)*		**Indicative Content**	10	**Level 3 [7-10 marks]**
					At the **top** of the level a **thorough** discussion, which shows **detailed** understanding:
			Question asks what would be included in a whistleblowing policy.		• **Explained more than one** issue that should be included in the whistleblowing policy
			Issues:		• Made **some judgements** within the **context** provided
			• What whistleblowing is with acts that could lead to whistleblowing		• Subject specific terminology and knowledge are clearly used to support and inform the explanations.
			• Examples of wrongdoings that are covered under whistleblowing		• There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.
			• Confidentiality – how will be maintained		
			• Who can raise concerns		**Level 2 [4-6 marks]**
			• Who to raise concerns with/ Point(s) of contact		At the **top** of the level an **adequate** discussion, which shows **sound** understanding:
			• How to raise a concern		• **Described** at least **one** issue that should be included in the whistleblowing policy
			• How issues will be dealt with/ processes to be followed		• Made **some judgements** within the context provided although these may be **superficial** in nature.
			• Legal rights of the whistleblower		
			• Public Interest Disclosure Act 1988		• **Some** subject specific terminology and knowledge has been used.
			• Support available for staff who raise concerns		• There is a line of reasoning presented with **some** structure. The information presented is for the most part relevant and supported by some evidence.
			• Appeals process if found to be true/false		
			• Training within BMC for how to deal with whistleblowing		
			• What will be done by BMC		
			• **Any other valid suggestion.**		**Level 1 [1-3 marks]**

Question			Answer	Marks	Guidance
					At the **top** of the level a **basic** justification, which shows **limited** understanding: • **Identified generic** points about whistle blowing. • 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.**
21	(d)		Acceptable use policy / AUP (1)	1	**CAO**
22			One from e.g. • Lock (1) • Biometrics (1) • RFID (1) • Token (1) • **Any other valid suggestion**	1	Measure must be physical and fit context. Do not accept: • Security guards (does not fit context)

Need to get in touch?

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