



Rewarding Learning

**General Certificate of Secondary Education
2014**

**Information and Communication
Technology
(Full Course)**

Unit 3: Understanding ICT Systems in Everyday Use and its
Implications for Individuals, Organisations,
Society and the Wider World

[GIT31]

WEDNESDAY 14 MAY, MORNING

**MARK
SCHEME**

General Marking Instructions

Introduction

Mark schemes are intended to ensure that the GCSE examinations are marked consistently and fairly. The mark schemes provide markers with an indication of the nature and range of candidates' responses likely to be worthy of credit. They also set out the criteria which they should apply in allocating marks to candidates' responses. The mark schemes should be read in conjunction with these general marking instructions.

Assessment Objectives

Below are the assessment objectives for GCSE ICT.

Candidates must:

- recall, select and communicate their knowledge and understanding of ICT;
- apply knowledge, understanding and skills to produce ICT-based solutions; and
- analyse, evaluate, make reasoned judgements and present conclusions.

Quality of candidates' responses

In marking the examination papers, examiners should be looking for a quality of response reflecting the level of maturity which may reasonably be expected of a 16-year-old which is the age at which the majority of candidates sit their GCSE examinations.

Flexibility in marking

Mark schemes are not intended to be totally prescriptive. No mark scheme can cover all the responses which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for what candidates know, understand and can do rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected of a 16-year-old GCSE candidate.

Awarding zero marks

Marks should only be awarded for valid responses and no marks should be awarded for an answer which is completely incorrect or inappropriate.

Types of mark schemes

Mark schemes for tasks or questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication.

Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

Levels of response

Tasks and questions requiring candidates to respond in extended writing are marked in terms of levels of response. In deciding which level of response to award, examiners should look for the 'best fit' bearing in mind that weakness in one area may be compensated for by strength in another.

In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement. The following guidance is provided to assist examiners.

- **Threshold performance:** Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.

- **Intermediate performance:** Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.
- **High performance:** Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

Marking calculations

In marking answers involving calculations, examiners should apply the 'own figure rule' so that candidates are not penalised more than once for a computational error.

Quality of written communication

Quality of written communication is taken into account in assessing candidates' responses to all tasks and questions that require them to respond in extended written form. These tasks and questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication.

For conciseness, quality of written communication is distinguished within levels of response as follows:

Level 1: Quality of written communication is limited.

Level 2: Quality of written communication is satisfactory.

Level 3: Quality of written communication is of a good standard.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

Level 1 (Limited): The candidate makes only a limited attempt and use of an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 (Satisfactory): The candidate makes a reasonable attempt and use of an appropriate form and style of writing, supported with appropriate use of diagrams as required. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 (Good): The candidate successfully selects and uses an appropriate form and style of writing, supported with effective use of diagrams where appropriate. Relevant material is organised with a good degree of clarity and coherence. There is good use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a sufficiently high standard to make meaning clear.

- 1**
- (a)** C A smartcard chip has more storage capacity than a magnetic stripe and data on a smartcard chip can be updated [1]
 - (b)** B Internet Service Provider, Telecommunications Line, Router [1]
 - (c)** D It provides Internet access [1]
 - (d)** D A graphics digitiser uses a stylus to input data [1]
 - (e)** C A Universal Serial Bus [1]
 - (f)** A It has no moving parts and consumes very little power [1]
 - (g)** D More channels, electronic programme guide and good quality picture [1]
 - (h)** C The data can be easily transferred from one system to another [1]
 - (i)** D Fibre optic cable carries data in pulses of light and is not prone to interference [1]
 - (j)** B A graphic representing a short cut to a program [1]

AVAILABLE
MARKS

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2 (a) Any **one** from:
 (H2+H3+H4+H5); SUM (H2:H5) Sum (H2, H5) [1]

(b)

Formula	Tick (✓)
D4–G4–F4	
E4+F4–G4	
E4–F4–G4	✓

[1]

(c)

Formula	Tick (✓)
If (D2<=20,5,D2*1)	✓
If (D2>20,D2*1,5)	✓
If (D2<=20,D2*1,5)	
If (D2>20,5,D2*1)	

[2]

(d) Change the value/price/cost [1] to show how the profit/income is affected [1]
 Mentions changing value in cell [1] How that change would impact on other values [1] [2]

(e) Any **two** from:
 Increase charges for any class [1]
 Cancel the Solo drama class/increase the numbers in the Solo drama class [1]
 Encourage higher numbers for any class [1]
 Reference to profit levels [1] [2]

(f) Any **three** from:
 A1:A5[1]/A1 to A5[1]/A1–A5[1]
 D2/D1:D5[1]/D1 to D5[1]/D1–D5[1]
 H2/H1:H5[1]/H1 to H5[1]/H1–H5[1] [3]

(g) (i) Any **two** from:
 A set of commands/instructions [1]/code [1]
 Recorded/grouped together/activated by a mouse click/pressing a key [1]
 A short cut to a task [1]
 A preprogrammed command [1] [2]

(ii) Any **two** from:
 Check/use the record macro (function) [1]
 Carry out the tasks (to be included) [1]
 Name/save the macro [1]
 Write a macro using a script editor [1] [2]

AVAILABLE MARKS

15

3 (a)

Advantage	Tick (✓)
The bank's employees can work from home.	
Less staff will be needed in branches of the bank.	✓
Overheads such as building rental will be reduced.	✓
More branches of the bank will have to be opened.	

[2]

(b) **Level 0 ([0])**

Answer is not worthy of credit

Level 1 ([1]–[2])

The candidate mentions **one** [1] or **two** [2] or **three** [2] or describes one of secure websites/encryption/advantages to customers. The candidate makes limited use of spelling, punctuation and grammar. The meaning of the text is not always clear. The candidate demonstrates a limited form and style appropriate to the question. The organisation of the answer is limited. There is little use of specialist terms.

Level 2 ([3]–[4])

The candidate describes **two** of secure websites/encryption/advantages to customers. The candidate makes satisfactory use of spelling, punctuation and grammar. The meaning of the text is usually clear. The candidate demonstrates a satisfactory form and style appropriate to the question. The organisation of the answer is satisfactory. There is some use of specialist terms.

Level 3 ([5]–[6])

The candidate describes **three** of secure websites/encryption/advantages to customers. There is a good explanation of each aspect. The candidate makes good use of spelling, punctuation and grammar. The meaning of the text is always clear. The candidate demonstrates good form and style appropriate to the question. The organisation of the answer is good. There is good use of specialist terms.

[6]

8

Answers may include:

Advantages of online banking

24 × 7 banking

Easy transferral of funds/pay bills/other appropriate services, e.g. communication

A variety of locations/no need to travel

Importance of secure websites:

Protect customer details

Prevent hacker accessing details

Ensure that data is delivered correctly

Provide secure payments

Enable secure payments using card

Encryption:

- Data is scrambled/encrypted/encoded at source
- Data is unscrambled/decrypted/decoded at destination
- Data is encoded using an encryption key
- Data is decoded using a decryption key
- Data is meaningless if intercepted
- The key is needed to decode data

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4 (a) [2] for a correct feature plus an explanation of its use.

- Feature [1] + explanation of how feature can be used [1]
- Discussion forum [1] To collaborate/communicate with other pupils [1]/teacher [1]
- Wiki/Blog[1] to generate content [1]/explanation [1]
- To view sample material/notes/homework [1] + explanation [1]
- To take online exam [1] + explanation [1]
- To take quizzes/questionnaire/survey [1] + explanation [1]
- Assessment/feedback to pupils [1] + explanation [1]
- Teacher tracking [1] + explanation [1]/for evaluation of pupil performance [4]

(b) Any **two** from:

- Dependence on technology [1] may mean failure/unpredictability [1]
- Need skills to operate [1] so training required [1]
- Do not have Internet/Students need equipment at home [1] economic factors may limit this [1]
- Less contact with teacher [1] students cannot ask questions/may find it less satisfactory than classroom [1]
- No immediate help/response available [1]
- Less social interaction [1] [4]

(c) (i) Any **three** from:

- High speed telecommunications link/line [1]/broadband [1]
- Webcam/video camera [1]
- Screen/monitor [1]/projector [1]
- Speaker [1]
- Microphone [1]
- Router [1] [3]

(ii) The rate at which data can be transmitted [2]
Technical definition of bandwidth bps [1]
The amount of data [1] which data can be transmitted [1] [2]

(iii) High bandwidth provides good quality sound/picture/no lagging [2]/
Low bandwidth may cause poor quality sound/picture/lagging [2]
Impact [1] + correct technology [1] [2]

15

- 5 (a) Definition, e.g.
The amount of carbon emissions/greenhouse gas released by users [1]
Climate change [1]/global warming [1]
Ozone layer problems [1]
Pollution [1] [3]

- (b) **Level 0 ([0])**
Answer is not worthy of credit

Level 1 ([1]–[2])

The candidate mentions **one** [1] or **two** [2] or **three** [2] or **discusses one method of reducing the carbon footprint**. The candidate makes limited use of spelling, punctuation and grammar. The meaning of the text is not always clear. The candidate demonstrates a limited form and style appropriate to the question. The organisation of the answer is limited. There is little use of specialist terms.

Level 2 ([3]–[4])

The candidate discusses **two methods of reducing the carbon footprint**. The candidate makes satisfactory use of spelling, punctuation and grammar. The meaning of the text is usually clear. The candidate demonstrates a satisfactory form and style appropriate to the question. The organisation of the answer is satisfactory. There is some use of specialist terms.

Level 3 ([5]–[6])

The candidate discusses **three methods of reducing the carbon footprint**. There is a good explanation of each aspect. The candidate makes good use of spelling, punctuation and grammar. The meaning of the text is always clear. The candidate demonstrates good form and style appropriate to the question. The organisation of the answer is good. There is good use of specialist terms [6]

9

Answers could include:

- Purchase energy efficient equipment
- Educate ICT user
- Change old monitors to energy efficient monitors
- Use less paper/set printing limits/consider email
- Encourage staff to switch computers off/switch printers off
- Dispose of equipment in an environmentally friendly way
- Recycle old computers/ICT equipment
- Reuse/refill, e.g. cartridges, paper etc.

6 (a)

Software Package	Tick (✓)
Presentation Software.	
Database Software.	
Graphics Software.	✓
Spreadsheet Software.	

[1]

(b) (i) He does not have the correct software [1]

[1]

(ii) Any **two** from:

Reduced file size [1]

Can send (a number of folder items) as one attachment [1]

Time taken to attach file is reduced [1]

[2]

(c)

Data file	File extension
Music files	MP3
Graphics files	JPEG
Video files	MPEG

[3]

AVAILABLE
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- 7 (a) Any **two** from:
Country of origin [1]/country code [1]/country it came from [1]
Manufacturer code/Manufacture No/manufacturer ID [1]
Item code/Product code/Number [1] [2]

- (b) **Level 0 ([0])**
Answer is not worthy of credit

Level 1 ([1]–[2])

The candidate mentions **one** [1] or **two** [2] or **three** [2] or **discusses one of Input/Processing/Output components in an EFTPOS**. The candidate makes limited use of spelling, punctuation and grammar. The meaning of the text is not always clear. The candidate demonstrates a limited form and style appropriate to the question. The organisation of the answer is limited. There is little use of specialist terms.

Level 2 ([3]–[4])

The candidate describes **two of Input/Processing/Output components in an EFTPOS**. The candidate makes satisfactory use of spelling, punctuation and grammar. The meaning of the text is usually clear. The candidate demonstrates a satisfactory form and style appropriate to the question. The organisation of the answer is satisfactory. There is some use of specialist terms.

Level 3 ([5]–[6])

The candidate describes all **three of Input/Processing/Output components in an EFTPOS**. There is a good explanation of each aspect. The candidate makes good use of spelling, punctuation and grammar. The meaning of the text is always clear. The candidate demonstrates good form and style appropriate to the question. The organisation of the answer is good. There is good use of specialist terms.

Answers may include reference to:

Input: Scanner; keyboard; scales

Card into card reader

The barcode scanner reads the barcode on the product

The barcode is sent to the computer which contains the stock database

Processing: computer/till computes bill

The computer uses the barcode to search the stock file looking for a matching product.

When the product is found, the product price and product description are sent back to the EFTPOS terminal.

Updating of store database/tracking of stock

Totalling bill

Check balance, transfer funds

Check details

Output: Monitor; Printer; Speakers

Beeping when goods are scanned

Itemised receipt produced/card reader receipt

Onscreen data to operator/customer

(Accept chip and pin provided it has the required depth)

[6]

8

8 Level 0 ([0])

Answer is not worthy of credit

Level 1 ([1]–[2])

The candidate mentions **one** [1] or **two** [2] or **three** [2] or describes one advantage to the company. The candidate makes limited use of spelling, punctuation and grammar. The meaning of the text is not always clear. The candidate demonstrates a limited form and style appropriate to the question. The organisation of the answer is limited. There is little use of specialist terms.

Level 2 ([3]–[4])

The candidate discusses **two** advantages to the company. The candidate makes satisfactory use of spelling, punctuation and grammar. The meaning of the text is usually clear. The candidate demonstrates a satisfactory form and style appropriate to the question. The organisation of the answer is satisfactory. There is some use of specialist terms.

Level 3 ([5]–[6])

The candidate discusses **three** advantages to the company. There is a good explanation of each aspect. The candidate makes good use of spelling, punctuation and grammar. The meaning of the text is always clear. The candidate demonstrates good form and style appropriate to the question. The organisation of the answer is good. There is good use of specialist terms.

Answers may include:

Company

The website is open 24/7

Requires few personnel

Global customers/the chance of getting more customers/sell more

It can trade without the need to rent large city centre premises

Immediate payment as goods are purchased

Maintain a marketing data/track purchases

[6]

6

AVAILABLE
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9 (a)

Field Name	Data Type
VideoNumber	Number
VideoTitle	TEXT/alphanumeric/string
Genre	LOOKUP/TEXT/alphanumeric/string
Release Date	DATE/(TIME)
InStock	BOOLEAN/YES/NO

[4]

(b) The **input mask** defines the format of the data being entered. [1]

[1]

(c) Primary key uniquely identifies each record. [1]/a video/the video

[1]

(d)

Type of Relationship	Tick (✓)
One-to-One	
One-to-Many	✓ [1]
Many-to-Many	

[1]

(e) (i) A wizard is software [1] that helps the user to complete a task (through a process) [1] step by step [1]

[2]

(ii) **SORT** **GROUP** **SUB HEADING**

[1]

(iii) Returned=Y/Yes/True [1]

[1]

AVAILABLE
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10 (a)	Statement	Tick (✓)
	Using OMR reduces data entry errors.	✓
	Using a touch screen will require more ICT skills than using a keyboard.	
	Modern digital cameras cannot record short video clips.	
	The quality of an image scanned by a scanner is measured in dots per inch.	✓

[2]

(b) The advantage of using PLOTTERS is that businesses can produce high quality detailed diagrams. LASER PRINTERS are more suitable for printing large volumes of data. INKJET printers consist of a print head which contains nozzles. [3]

(c) (i) Any **two** from:
Bit/Bytes/Kilobytes/Megabytes/Gigabytes/Terabytes
(Accept abbreviations) [2]

(ii) Any **one** from:
It is volatile [1] or a relevant statement, e.g. Info is lost when computer is turned off [1]
The amount of RAM impacts on the computer's performance [1]
More RAM, better performance(or vice versa) [1]
Storage of programs being used [1]
Data contents can be altered [1] [1]

(d) ([1] for device [1] for reason)
External hard drive [1] portable [1]/any reference to capacity [1]
Blu-ray [1] portable [1]/resistant to damage [1]
USB storage/memory pen/flash drive [1] [2]

(e)	Task	Technology required
	Connecting a laptop to a router.	Wi-Fi
	Connecting with another mobile phone to transfer data.	Bluetooth
	Using a mobile phone to access the Internet when Wi-Fi is not available.	3G

[3]

13

11 (a) Attach the document to the email [1] [1]
No marks for copying and pasting letter

(b) Any **one** from :
Email will appear at top of recipient's inbox [1]
Email will appear with an icon to indicate importance [1] [1]

(c) Delivery receipt informs the sender that the email has reached its destination [1]
Read receipt informs the sender when the email has been opened [1] [2]

4

AVAILABLE MARKS
13
4

- 12 (a) Any **one** from:
 Types of content can be blocked [1] e.g. video/images/shopping etc [1]
 Key words [1] can cause websites to be blocked [1]
 Monitors Internet usage [1]
 Unsuitable websites blocked [1] [2]

- (b) Computer Aided/assisted Learning [1] [1]

- (c) Any **two** from:
 They can learn at their own pace [1]
 They can learn in any location [1]
 They can review learning material [1]
 More interactive/more interesting for pupils [1]/multimedia reference [1]
 Immediate feedback on quizzes/tests [1] [2]

- (d) **Level 0 ([0])**
 Answer is not worthy of credit

Level 1 ([1]–[2])

The candidate mentions **one** [1] or **two** [2] or **three** [2] or discusses **one** area. The candidate makes limited use of spelling, punctuation and grammar. The meaning of the text is not always clear. The candidate demonstrates a limited form and style appropriate to the question. The organisation or the answer is limited. There is little use of specialist terms.

Level 2 ([3]–[4])

The candidate discusses **two** of the areas. The candidate makes satisfactory use of spelling, punctuation and grammar. The meaning of the text is usually clear. The candidate demonstrates a satisfactory form and style appropriate to the question. The organisation of the answer is satisfactory. There is some use of specialist terms.

Level 3 ([5]–[6])

The candidate discusses all **three** areas. The candidate makes good use of spelling, punctuation and grammar. The meaning of the text is always clear. The candidate demonstrates good form and style appropriate to the question. The organisation of the answer is good. There is good use of specialist terms.

Answers may include:

No visual/face to face communication

Cheaper for international calls

Can use existing equipment/equipment required is cheap

Difficult to show designs

Difficult to visualise design with seeing drawings

Expert cannot see existing drawings and vice versa

Computer/software/microphone/speaker/smartphone

Telecommunications link [6]

11

- 13 (a) A **Pressure** sensor is used to count the number of cars and change the lights at a busy junction. Motion sensors attached to **cameras** can detect cars moving at high **speed** so that fines can be issued. [3]

(b)

Action	Input/Process/Output/Feedback
Sensors register cars as they enter and leave the car park	Input
A ticket with details of date and entry time is printed upon entering the car park	Output
The total number of cars in the car park is calculated and compared to the number of spaces available	Process
If no more spaces are available the car park barrier will not raise for the next car	Feedback

[3]

6

- 14 (a)
- | | | | | |
|---|--|---|--|---|
| A list of instructions in the help system | A display of the number of lives remaining | Selecting difficulty options at start of the game | Help and Pause buttons available on screen | Sounds play when an alien ship is destroyed |
| Tick <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

[2]

- (b) Any **two** from:
 Game rules [1]/aim of game [1]
 Controls/how to play game [1]/instructions [1]
 Explain feedback [1]
 How to exit [1]/Start [1]/Stop [1]
 How to get help [1]
 Scoring mechanism [1] [2]

- (c) Large files take up a lot of storage space/more storage needed to distribute game/implication that large file size increases game size [1]
 large file takes a long time to load [1] large file size means a lot of processing [1] can slow game down [1] [2]

(d) **Level 0 ([0])**

Answer is not worthy of credit

Level 1 ([1]–[2])

The candidate mentions **one** [1] or **two** [2] or describes **one** means of testing. The candidate makes limited use of spelling, punctuation and grammar. The meaning of the text is not always clear. The candidate demonstrates a limited form and style appropriate to the question. The organisation of the answer is limited. There is little use of specialist terms.

Level 2 ([3]–[4])

The candidate briefly describes **two** of the means of testing. The candidate makes satisfactory use of spelling, punctuation and grammar. The meaning of the text is usually clear. The candidate demonstrates a satisfactory form and style appropriate to the question. The organisation of the answer is satisfactory. There is some use of specialist terms.

Level 3 ([5]–[6])

The candidate fully describes **both** means of testing. The candidate makes good use of spelling, punctuation and grammar. The meaning of the text is always clear. The candidate demonstrates good form and style appropriate to the question. The organisation of the answer is good. There is good use of specialist terms.

Answers may include:

Testing the scoring:

Use the game plan to see how the score should work

Plan a variety of moves/actions in the game predict how these moves/actions should change the score

Check the score changes correctly on screen after making each move/action

Testing the navigation

Use the game plan to see where each navigation button in the game should take the end user

Click each navigation button in turn

Check that the destination is as predicted by the planning document [6]

12

15 (a)

Statement	Tick (✓)
These checks help ensure data is always up-to-date	
These checks can involve data being entered into the system twice	✓
These checks are only used when changing passwords on a computer	
These checks ensure accurate transfer of data from the source document	✓

[2]

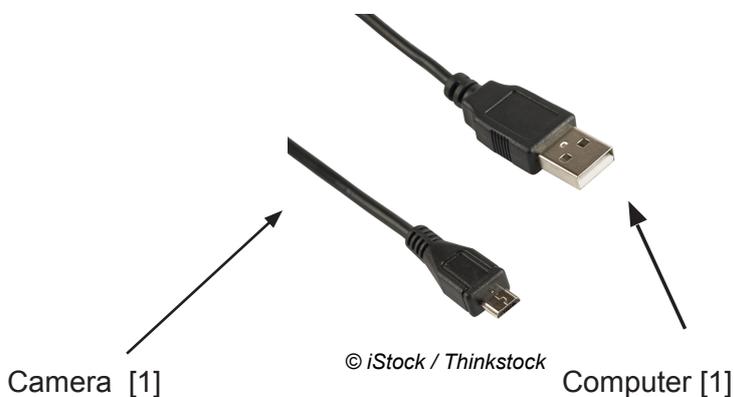
(b) Presence check [1]

(c) ≥ 1 [1] AND [1] < 10 [1]
Between 1 AND 10 [1]
Greater than \emptyset [1]
Less than 10 [1] [3]

6

- 16 (a) Scanner [1] Use a digital camera to take a photo [1] OCR [1] scan the document [1] [1]
- (b) (i) Copyright Designs and Patents Act [1] [1]
- (ii) Any **three** from:
 Personal data should be processed fairly and lawfully with the consent of the data subject. [1]
 Personal data should be used for the specified purpose only. [1]
 Personal data should be adequate and relevant for its intended purpose. [1]
 Personal data should be accurate and up to date. [1]
 Personal data should not be kept for longer than necessary. [1]
 Personal data should be processed in accordance with the rights of the data subject. [1]
 Personal data should be held securely, with no unauthorised access. [1]
 Personal data should not be transferred outside the EU. [1] [3]
- (iii) He/She is responsible for enforcing the DPA [1] [1]
- (iv) Any **one** from:
 Register the company to use data [1]
 Ensure the company follows the principles of the DPA [1]
 To ensure data held complies with the Act [1] [1]
- (c) Computer Misuse Act [1] [1]

(d)



- (e) USB Memory Pen SD Memory Card Battery [2]

- (f) Any **two** from:
 How suitable is the graphic for the audience [1]
 Is the graphic good quality [1]
 What file format is the graphic [1]
 Is the image copyright protected [1]
 A reference to size/resolution [1] [2]

- 17 (a) A file used to update the masterfile [1] temporary files [1]
A file used to hold readings[1]/current data/current readings [2]
- (b) (i) Batch [1]/batch processing [1] [1]
- (ii) Any **two** from:
No human interaction [1]
High volume processing completed together [1]
All bills need to be produced at once [1]/all bills calculated the same way [1]
Data can be collected over time then processed together [1]
Can be done at suitable times such as overnight [1] [2]
- (c) (i) Units used are calculated [1] these are used to calculate the cost of the electricity used [1]
Present reading on transaction file is subtracted from last reading on master file [1] [2]
- (ii) It provides customer's details for use on the bill [1] and it provides the previous reading to compute the units used [1] [2]

(d)

Statement	Tick (✓)
Users can share files on a network and can log on at any computer to access their work	✓
The file server stores user data and is the least powerful computer on the network	
A router shares a network connection between devices and can be wireless	✓
Adding a firewall reduces network security	
Giving people different levels of access improves security on a network	✓
Users can share peripherals but cannot communicate with other users on the network	

[3]

(e)

Threat	How can the manager protect the network?
Virus attack	Install Antivirus software and update regularly
Hacking [1] Authorised user misuse [1]	Username [1] passwords [1]/Encryption [1] Levels of access [1] Firewall [1]
Data Loss [1]	Back up [1]
Physical Attack [1] e.g. Flood/fire	Fireproof safe [1] Keep on 1st floor [1]
Attack/theft [1]	Lock doors [1] Camera [1] Security guards [1]

[4]

16

Definition	Term
Repeating data unnecessarily in a database	REDUNDANCY
Creating standard letters for a number of people and taking their details from a database	MAILMERGE
Ensuring the correctness reliability and accuracy of data in a database	INTEGRITY
An optical disk with a storage capacity large enough to hold a HD film	BLU-RAY
The smallest area that can be edited on a graphic	PIXEL
A form of internal memory that is non volatile	ROM
A health and safety risk arising from too much computer usage	RSI
Shopping and conducting business transactions online	E-COMMERCE
A protocol used to send and receive web pages	HTTP
Data which has been processed and given a meaning	INFORMATION

[10]

Total

AVAILABLE MARKS

10

180