

Chapter 1

**Question 1: (Q1 – 0417\_m16\_ms\_12)**

- (a) PC/desktop [1]
- (b) Laptop [1]
- (c) Tablet [1]
- (d) Smartphone [1]

**Question 2: (Q2 – 0417\_m16\_ms\_12)**

	CLI (x)	GUI (x)
Instructions have to be typed.	x	
Applications are represented by icons.		x
Options are chosen from a menu.		x
Many instructions have to be memorised.	x	

- 4 correct answers – 2 marks
- 1 or 3 correct answers – 1 mark
- 1 correct – 0 marks [2]

**Question 3: (Q2 - 0417\_s16\_ms\_11)**

	applications (x)	systems (x)
Word processing	x	
Compilers		x
Interpreters		x
Spreadsheet	x	

- 4 correct answers – 2 marks
- 2 or 3 correct answers – 1 mark
- 1 correct – 0 marks [2]

**Question 4: (Q3 – 0417\_s16\_ms\_11)**

	TRUE ( )	FALSE ( )
Most modern laptop computers have webcams built in	x	
Desktop computers are not very portable	x	
All desktop computers have a touchpad built in		x
Laptop computers are rarely supplied with a mouse.	X	

[2]

- 4 correct answers – 2 marks
- 2 or 3 correct answers – 1 mark
- 1 correct – 0 marks

**Question 5: (Q2 – 0417\_s16\_ms\_12)**

	TRUE ( )	FALSE ( )
A mouse is an output device		x
The Control Unit is part of the Central Processing Unit	x	
The Arithmetic and Logic Unit is part of the Central Processing Unit	x	
A temperature sensor is an input device	x	

- 4 correct answers – 2 marks
- 2 or 3 correct answers – 1 mark
- 1 correct – 0 marks [2]

### Question 6: (Q1\_0417\_w16\_ms\_11)

- 1 (a) RAM [1]
- (b) Motherboard [1]
- (c) ROM [1]
- (d) Sound card [1]

### Question 7: (Q2\_0417\_w16\_ms\_11)

- 2 (a) Graphical User Interface or GUI [1]
- (b) An icon is a picture/image  
Used as a shortcut to a program/application [2]
- (c) Click/tap on it  
Use a pointer/gesture/mouse/enter key/pointing device [1]

### Question 8: (Q9\_0417\_w16\_ms\_11)

- (a) Two from: [2]
- Wand or joystick Treadmill
  - Pressure mats
  - Data gloves
  - Headset/head mounted displays/Head mounted device(HMD)
  - Goggles
  - Steering/gaming wheels/consoles
  - Pedals
  - Paddles
  - Cameras
  - Motion sensors
- (b) Two from, for example: [2]
- Virtual museums
  - Virtual theme parks
  - Design of sports clothing
  - Flight simulation
  - Battlefield/combat simulation
  - Virtual tours
  - Medical training Walkthroughs
  - Driving simulation
- Any reasonable answers [2]

### Question 9: (Q2- 0417\_w16\_ms\_12 )

- (a) Two from: [2]
- Software is programs/set of instructions. [1]
  - Software controls/runs a computer system/hardware. [1]
- (b) (i) System(s) (software) [1]
- (ii) For example: Operating system, file management system, utilities [1]
- (iii) Application(s) (software) [1]
- (iv) For example: Word processor, spreadsheet, database [1]

#### Chapter 2

### Question 10: (Q3 – 0417\_m16\_ms\_12)

	TRUE ( )	FALSE ( )
A multimedia projector is used to output slide shows.	x	
A laser printer is a type of page printer.	x	
An inkjet printer cartridge lasts longer than a laser printer toner cartridge producing the same output.		x
A dot matrix printer produces very high quality printouts quickly.		x

4 correct answers – 2 marks

2 or 3 correct answers – 1 mark

1 correct – 0 marks

[2]

### Question 11: (Q1 - 0417\_s16\_ms\_11)

- (a) RFID reader [1]
- (b) Optical Character Reader [1]
- (c) Chip reader [1]
- (d) Magnetic stripe reader [1]

### Question 12: (Q1 – 0417\_s16\_ms\_12)

- (a) Touchpad [1]
- (b) Joystick/trackerball [1]
- (c) Keyboard [1]
- (d) scanner [1]

### Question 13: (Q11\_0417\_w16\_qp\_11)

- (4) **One from:**
- Moisture/humidity (sensor)
  - Temperature (sensor)
  - Wind Speed (sensor)
  - Wind direction (sensor)
  - Light (sensor)
- [1]

- (b) Four from:**
- Data is read by the sensors.
  - The data is converted to digital data/using the ADC.
  - The data is sent to the microprocessor/computer (in the ground base unit)...
  - ...using a satellite link.
  - ...by radio waves.
  - Graphs/results are automatically produced by computer.
  - Graphs are plotted against time.
  - Data is saved in the computer for later use.
- [4]

- © Three from:**
- Cheaper sending up a weather balloon than using an aircraft due to fuel for example.
  - Fewer errors as the aircraft movement/heat could affect the data from the sensors.
  - If the air balloon is checking wind speed it is floating/constant speed therefore more accurate.
  - Safer, in the event of severe/extreme weather conditions due to the weather balloon not being manned.
  - The weather balloon will allow weather to be monitored in a fixed location.
- [3]

### Question 14: Q3 – 0417\_w16\_qp\_12 (mixed chapter 1)

	input	output	backing storage
Motor		X	
CD-R			X
Webcam	X		
Printer		X	

[4]

### Question 15: (Q16: 0417\_m17\_ms\_12)

Question	Answer	Marks
16(a)	Any <b>two</b> from: Tablets can be customized to individual needs Easier to change the percentages of drug in the tablet Mass produced or small batches therefore reducing waste Created as needed therefore reducing waste Patient gets the drugs quicker	2
16(b)	Any <b>two</b> from: Cost of buying the printer is expensive Materials are expensive Can be used for illegal production of drugs There are not many 3D printers created to date to do this	2

### Question 16: (Q2: 0417\_s17\_ms\_11)

Question	Answer		Marks															
2	<table border="1"> <thead> <tr> <th></th> <th>impact</th> <th>non-impact</th> </tr> </thead> <tbody> <tr> <td>Dot matrix printer</td> <td>✓</td> <td></td> </tr> <tr> <td>Inkjet printer</td> <td></td> <td>✓</td> </tr> <tr> <td>Laser printer</td> <td></td> <td>✓</td> </tr> <tr> <td>3D printer</td> <td></td> <td>✓</td> </tr> </tbody> </table>		impact	non-impact	Dot matrix printer	✓		Inkjet printer		✓	Laser printer		✓	3D printer		✓		2
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**Question 17: (Q1: 0417\_s17\_ms\_12)**

Question	Answer	Marks
1(a)	Any <b>two</b> from: - Weighing scales - Keyboard/key pad - Bar code scanner/reader - Chip reader/card reader - Magnetic stripe reader - Pin pad - Light sensor (on conveyor belt) - Touch screen	2
1(b)	Any <b>two</b> from: - Printer - Screen/monitor - Speaker/buzzer - Warning light/lamp	2

**Chapter 3**

**Question 18: (Q6 – 0417\_w16\_ms\_12)**

	Fixed Hard Disk	Blu-ray	Magnetic Tape	Memory card
Storing a database of books in a school library	x			
Storing photographs in a digital camera				x
Companies distributing HD movies		x		
Storing the back up of a file server			x	

[4]

**Question 19: (Q2: 0417\_m17\_qp\_12)**

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2	<table border="1"> <thead> <tr> <th></th> <th>internal memory (M)</th> <th>backing storage (M)</th> </tr> </thead> <tbody> <tr> <td>Random Access Memory</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Portable hard disk</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Pen drive</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Magnetic tape</td> <td></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>4                      correct answers – 2 marks                      2 or 3 correct answers – 1 mark                      0 or 1 correct – 0 marks</p>		internal memory (M)	backing storage (M)	Random Access Memory	<input type="checkbox"/>		Portable hard disk		<input type="checkbox"/>	Pen drive		<input type="checkbox"/>	Magnetic tape		<input type="checkbox"/>	2
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**Question 20: (Q3: 0417\_s17\_qp\_11)**

Question	Answer	Marks															
3	<table border="1"> <thead> <tr> <th></th> <th>true</th> <th>false</th> </tr> </thead> <tbody> <tr> <td>A portable hard drive is an example of internal memory.</td> <td></td> <td>✓</td> </tr> <tr> <td>Magnetic tape is used to store backups of data.</td> <td>✓</td> <td></td> </tr> <tr> <td>RAM is internal memory.</td> <td>✓</td> <td></td> </tr> <tr> <td>ROM loses its data when the power is turned off.</td> <td></td> <td>✓</td> </tr> </tbody> </table> <p>4 correct ticks 2 marks 2                      or 3 correct ticks 1 mark                      and 1 or 0 ticks no marks</p>		true	false	A portable hard drive is an example of internal memory.		✓	Magnetic tape is used to store backups of data.	✓		RAM is internal memory.	✓		ROM loses its data when the power is turned off.		✓	2
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