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General Certificate in Secondary Education
June 20XX

**AQA**

# Information and Communication Technology (Short Course)          XXXXX

### Unit 1   Specimen Systems and Applications in ICT

**You will need no other materials.**
You may use a calculator.

**Time allowed**
- 1 hour.

**Instructions**
- Use black ink or black ball-point pen.  Use pencil only for drawing.
- Fill in the boxes at the top of the page.
- Answer **all** questions in Sections A and B.  In Section C, answer **either** Question 8 or Question 9 which should be answered in continuous prose.
  In this question you will be marked on your ability to:
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.
- You must answer the questions in the spaces provided.  Do not write outside the box around each page or on blank pages.
- Do all rough work in this book.  Cross through any work you do not want to be marked.

**Information**
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 60.

**XXXXX**

**Section A**

Answer **all** questions in the spaces provided.

**1** **(a)** Which **one** of the following output devices gives hard copy output?

Write the letter corresponding to your answer in the box given.

**A** Digital projector
**B** Monitor
**C** Printer
**D** Speaker
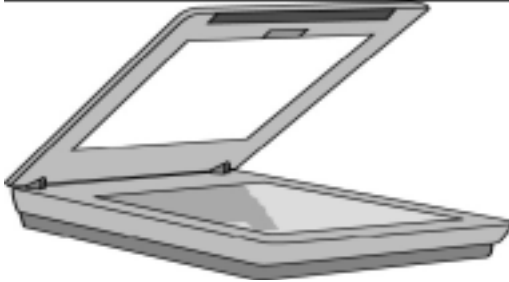
Answer ☐

*(1 mark)*

**1** **(b)** Five input devices have been labelled A to E in the table below.

| Label | Name |
|-------|------|
| A | Interactive whiteboard |
| B | Joystick |
| C | Keyboard |
| D | Microphone |
| E | Scanner |

Write **one** label in each box to name the **input device** shown.

| | **Input device** | Write **one** label in each box |
|---|---|---|
| **(i)** |  | |
| **(ii)** | <br>(QCDA: picture to be re-drawn) | |

*(2 marks)*

**1** **(c)** Name **one** other input device that is not given in part **1(b)**.

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*(1 mark)*

**1** **(d)** Tick **two** boxes to show which of the following are portable devices.

| | Tick **two** boxes only |
|---|---|
| Colour laser printer | |
| Desktop computer | |
| Interactive whiteboard | |
| Notebook computer | |
| PDA | |

*(2 marks)*

<div style="text-align:right">6</div>

**2** **(a)** People are increasingly using digital devices such as a Smartphone.

Give **three** features available on a Smartphone that are **not** usually available on standard phones.

Feature 1……………………………………………………………………………………..

Feature 2 ……………………………………………………………………………………

Feature 3……………………………………………………………………………………

*(3 marks)*

**2** **(b)** **Without** just listing more additional features, explain what makes a Smartphone different from standard phones.

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*(2 marks)*

<div style="text-align:right">5</div>

**3** Some types of applications software are **more suitable** than others for carrying out a given task.

**3 (a)** Match the **best** type of applications software, **A, B, C, D** or **E,** to carry out the tasks **(i) – (iii)** in the table below.

    **A** Database

    **B** Desktop publishing

    **C** Graphics

    **D** Web design

    **E** Word processing

| | Task to be carried out | Letter |
|---|---|---|
| **(i)** | Designing the cover for a music CD | |
| **(ii)** | Storing and processing the details of members of a gym | |
| **(iii)** | Creating a printed school magazine that includes images of the various school activities over the year | |

*(3 marks)*

**3 (b)** A college student uses a PC to help plan her budget for the first term. A screenshot of this plan is shown below



| | A | B | C | D |
|---|---|---|---|---|
| 1 | Weekly Budget | | | |
| 2 | | | | |
| 3 | Income | Amount | Weeks | Income per week |
| 4 | Government grant | £1,020.00 | 12 | £85.00 |
| 5 | Student Loan (per term) | £1,380.00 | 12 | £115.00 |
| 6 | Weekly wage form part-time job | £25.00 | 1 | £25.00 |
| 7 | | | | |
| 8 | Total weekly Income | | | £225.00 |
| 9 | | | | |
| 10 | | | | |
| 11 | Spending | Amount | Weeks | Spending per week |
| 12 | Rent (paid monthly) | £210.00 | 4 | £52.50 |
| 13 | Fuel bills (paid monthly) | £45.00 | 4 | £11.25 |
| 14 | Other bills - food etc. | £250.00 | 4 | £62.50 |
| 15 | College expenses - books etc. (per term) | £190.00 | 12 | £15.83 |
| 16 | Clothes (per term) | £160.00 | 12 | £13.33 |
| 17 | Travel (per term) | £130.00 | 12 | £10.83 |
| 18 | Leisure activities per week | £40.00 | 1 | £40.00 |
| 19 | Emergency money - left in bank (per term) | £100.00 | 12 | £8.33 |
| 20 | | | | |
| 21 | Total spending | | | £214.58 |
| 22 | | | | |
| 23 | Money left per week | | | £10.42 |
| 24 | | | | |

Which type of application software has been used to create this budget?

Software used .................................................................................................................

*(1 mark)*

**3** **(c)** The cell A4 has been formatted to text.

Tick **one** box to show how the cell C5 has been formatted.

|  | Tick **one** box only |
|---|---|
| Currency |  |
| Date |  |
| Number |  |
| Percentage |  |

*(1 mark)*

**3** **(d)** What formula has been used in cell D4?

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*(1 mark)*

**3** **(e)** Explain how the student could use this software as a model to explore ways of spending the money but still stay within budget.

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*(2 marks)*

8

**Turn over for the next question**

**4 (a)** One method often used to communicate is e-mail.

Explain what is meant by the term *e-mail.*

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*(2 marks)*

**4 (b)** One of the problems with e-mail is that people may receive spam.

Describe what is meant by the term *spam*.

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*(2 marks)*

| 4 |
|---|

**5** Integrated home entertainment systems are also becoming increasingly popular.

**5 (a)** Give **three** devices you would expect to find in such systems.

Device 1 ……………………………………………………………………….

Device 2…………………………………………………………………………

Device 3 …………………………………………………………………….…

*(3 marks)*

**5 (b)** For many years terrestrial TV offered a very limited number of channels and services. Today with the introduction of digital cable and satellite TV many more channels, facilities and services are available.

Other than providing extra channels, describe **one** facility or service you would expect to be available on cable or satellite TV.

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*(2 marks)*

**6**    An increasing number of people are joining social networking websites.

**6**  **(a)**    Describe what is meant by the term *social networking.*

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*(2 marks)*

**6**  **(b)**    Give **two** reasons why social networking websites are becoming increasingly popular.

Reason 1 ................................................................................................................

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Reason 2 ................................................................................................................

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*(2 marks)*

**6**  **(c)**    Give **two** possible disadvantages to the **visitor** of using social networking sites.

Disadvantage 1 ......................................................................................................

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Disadvantage 2 ......................................................................................................

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*(2 marks)*

**6** **(d)** Discuss the advantages of using a social networking website compared to using a web log (blog).

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*(5 marks)*

11

**Turn over for the next question**

**7**    A travel agency uses networked computers to book holidays for its customers.  The
computers are connected to the Internet.

**7**    **(a)**   Security is very important and each travel agent in the shop has their own password.
The choice of a **suitable** password is very important.

Give **two** pieces of advice that you would give to the travel agent about choosing a
suitable password.

Advice 1.................................................................................................................

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Advice 2 ................................................................................................................

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*(2 marks)*

**7**    **(b)**   One of the biggest security problems for the travel agency comes from hackers.

**7**    **(b)**    **(i)**   State what is meant by *a hacker.*

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*(1 mark)*

**7**    **(b)**    **(ii)**   Other than the use of passwords, give **one** other software method of preventing
hackers.

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*(1 mark)*

**7** **(c)** Discuss the possible health issues of the use of computers by the travel agency staff. Suggest how some of these issues might be overcome.

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*(5 marks)*

9

**Turn over for the next section**

**Section C**

You must answer **either** Question 8 **or** Question 9, but **not both.**

You will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary, where appropriate.

**EITHER**

**8** A high street bookshop has recently installed a new computer system that has Internet access.

What are the possible advantages **and** disadvantages of this new Internet access to the owner of the bookshop? Your answer should give clear examples.

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*(12 marks)*

**12**

**Turn over for the next question**

**OR**

**9** Discuss changes in the workplace due to the increased use of ICT.
Your answer should refer to the changes for the employees in the workplace, giving clear examples.

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*(12 marks)*

12

**END OF QUESTIONS**