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Surname

Other names

Pearson
Edexcel GCSE

Centre Number

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Candidate Number

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Information and Communication Technology

Unit 1: Living in a Digital World

Wednesday 18 May 2016 – Morning
Time: 1 hour 30 minutes

Paper Reference

5IT01/01

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
– *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Answer ALL questions.

Happy Tots is a children's nursery.

The nursery uses digital devices to communicate with parents.



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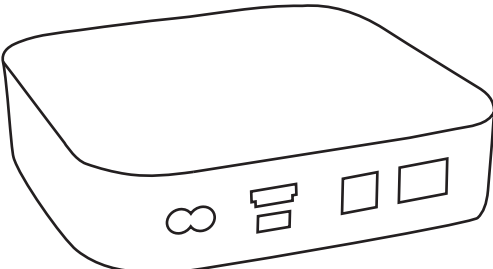
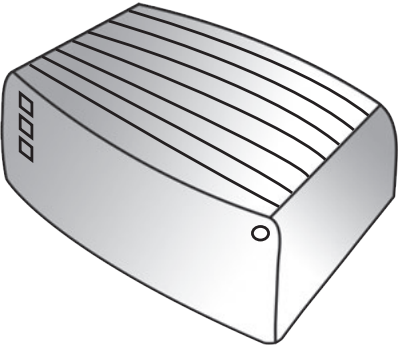
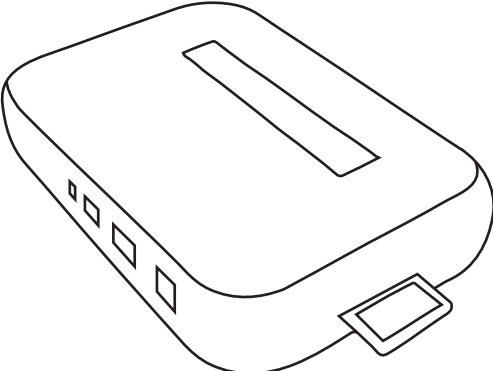
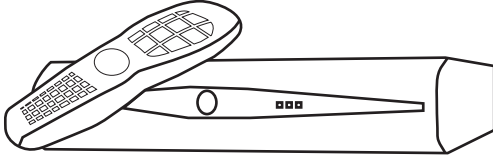


Use this information to answer Question 1(a)

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Media Station A		Media Station B	
			
Network connectivity	Ethernet / WiFi	Network connectivity	WiFi Direct
Video output	1920x1080	Video output	1024x768
Processor	800 MHz	Processor	700 MHz
Storage	1 TB	Storage	512 MB
Media Station C		Media Station D	
			
Network connectivity	4G	Network connectivity	Bluetooth
Video output	800x600	Video output	1280x600
Processor	16 MHz	Processor	1.2 GHz
Storage	SD Card	Storage	64 GB



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Some questions must be answered with a cross . If you change your mind about an answer, put a line through the box and then mark your new answer with a cross .

1 The nursery wants to buy a media station.

(a) (i) Which **one** of these can connect to a wired network?

(1)

- Media Station A
- Media Station B
- Media Station C
- Media Station D

(ii) Which **one** of these has the fastest processor?

(1)

- Media Station A
- Media Station B
- Media Station C
- Media Station D

(iii) Which **one** of these has storage expansion capability?

(1)

- Media Station A
- Media Station B
- Media Station C
- Media Station D

(b) The media station must be portable.

Which **one** of these affects portability?

(1)

- A** Bandwidth
- B** Performance
- C** Security
- D** Size



(c) The nursery connects a media station to a WiFi network.

Name **one** device that is needed to connect a media station to a WiFi network.

(1)

(d) Children watch a video that is being streamed to the media station.

(i) Which **one** of these is an advantage to users of streaming video?

(1)

- A** Better quality video
- B** More storage space is required
- C** Video can be viewed sooner
- D** Video will play on any device

(ii) Visitors connect to the nursery's network and browse the web.

Explain why the quality of video being streamed is reduced when visitors connect.

(2)

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(e) List **two** ways of stopping visitors from connecting to the nursery's network.

(2)

1

2



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(f) List **two** peripheral devices that could be used with the media station.

(2)

1

2

(g) The nursery is worried about copyright.

State what is meant by the term 'copyright'.

(1)

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(h) Give **one** method the nursery could use to block inappropriate videos.

(1)

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(Total for Question 1 = 14 marks)



2 The nursery organises a trip for the children.

(a) An email is sent to parents.

(i) List **three** personal digital devices that parents could use to receive the email.

(3)

1

2

3

(ii) The POP3 protocol deletes emails from the server after delivery to a device.

Name the protocol that keeps a copy of each email on the server.

(1)

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(b) The email contains a hyperlink to a web page.

The nursery staff collaborate to create the web page.

Which **one** of these would it be best for them to use?

(1)

- A** Blog
- B** Forum
- C** RSS
- D** Wiki

(c) The web page includes a section for parents with details of future trips.

Explain why the nursery also provides leaflets with the same information.

(2)

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(d) The email includes payment information.

(i) When parents pay online, data is sent through a web-browser.

Which **one** of these reduces the security risks to data?

(1)

- A** Bookmark
- B** Digital Certificate
- C** RSS
- D** SMTP

(ii) State **one** benefit **to the nursery** of using a third party payment system.

(1)

(iii) List **three** card details required when paying online using a bank card.

(3)

- 1
- 2
- 3

(e) Parents can pay at the nursery using Near Field Communication (NFC).

(i) Which **one** of these is a security risk associated with the use of NFC?

(1)

- A** Strangers will know where you are
- B** Hackers can change the NFC password
- C** No PIN is required to make a payment
- D** The account number is visible to anyone

(ii) Give **one** feature of NFC payment systems that reduces the security risk to data.

(1)

(Total for Question 2 = 14 marks)



3 Laura and Pete are parents of a child who attends the nursery.

The nursery uses photoblogging to share photographs of trips with parents.

(a) Explain **one** advantage of using photoblogging rather than email to share photos. (2)

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(b) Describe how photoblogging could create a risk to the children's privacy. (2)

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(c) Give **two** actions the nursery should take to reduce the risk to the children's privacy, before uploading photographs. (2)

1

2

(d) When Pete visits the photoblog, transactional data is collected.

(i) Which **one** of these can be used to collect transactional data? (1)

- A** Search engine
- B** Cookies
- C** Comments
- D** Debit card



(ii) Give **two** examples of transactional data the nursery could collect.

(2)

1

2

(iii) Give **one** way that the nursery could use the transactional data they collect from users.

(1)

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(e) Pete has a laptop **with** access to the internet.
Laura has a tablet computer **without** access to the internet.

Describe **one** method Pete could use to save an image from the photoblog to Laura's tablet computer.

(3)

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(f) State **three** implications of a lack of access to the internet.

(3)

1

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(Total for Question 3 = 16 marks)



4 The nursery staff use a smartphone to communicate with parents.

(a) Which **one** of these is a type of mobile phone connectivity?

(1)

- A SSID
- B MAC
- C GSM
- D WEP

(b) The smartphone cannot access the mobile phone network.

Describe how nursery staff could use the smartphone with another type of network to **speak** to a parent.

(2)

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(c) The smartphone can access the world wide web on the internet.

(i) State what is meant by the term 'world wide web'.

(2)

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(ii) State what is meant by the term 'internet'.

(2)

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(d) The smartphone uses a WPA key.

Which **one** of these is a WPA key used for?

(1)

- A** Encryption
- B** Downloading
- C** Virus protection
- D** Location services

(e) Give **one** feature of a smartphone that could be upgraded to enhance the user experience.

(1)

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(f) Smartphones can be used with wearable computers.

Describe **one** way that smartphones can be used with wearable computers to monitor the health and fitness of individuals.

(3)

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* (g) The use of smartphones and other digital devices has an impact on the environment.

Discuss the positive and negative impacts on the environment of the use of digital devices.

(6)

A series of horizontal dotted lines provided for the student to write their answer.

(Total for Question 4 = 18 marks)

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5 The nursery adds a video file to its social networking page.

(a) Give **two** features of a social network that could be used to publicise the video. (2)

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(b) Which **one** of these describes a video that has been watched by a lot of people over a short period of time? (1)

- A** Digital
- B** Tagged
- C** Viral
- D** Open source

(c) The nursery receives inappropriate comments from a social network user. Give **two** ways in which the nursery should respond. (2)

1

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(d) The nursery manager has forgotten their password for the social network.

Describe a process that could be used to reset a password securely.

(3)

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(e) Some staff check their social networking profiles at work.

Explain **two** reasons why staff are asked **not** to do this.

(4)

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*f) The nursery advertises for a new member of staff.

The nursery manager searches online for information about people who apply and finds a comment on a blog that worries her.

Discuss the impact of the widespread use of the internet on the availability, accuracy and control of online information about an individual.

(6)

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(Total for Question 5 = 18 marks)

TOTAL FOR PAPER = 80 MARKS

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