

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCSE

Information and Communication Technology

Unit 3: Exploring Digital Design

Wednesday 12 June 2013 – Afternoon
Time: 1 hour 30 minutes

Paper Reference
5IT03/01

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.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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PEARSON

CoolApps is a company that designs and creates digital products for a range of devices.

CoolApps is owned by Jenny.

Mohinder is a digital designer who works for CoolApps. He is working on a music streaming App for mobile devices.

Figure 1 shows a screen from the App.

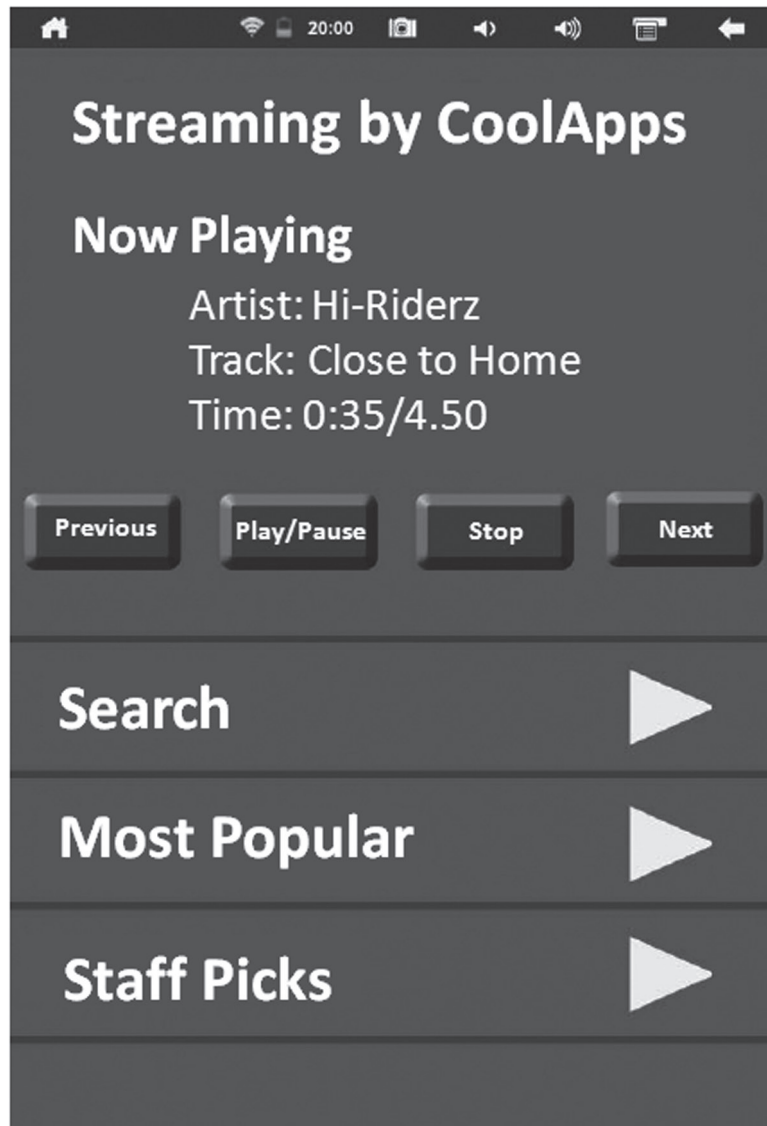


Figure 1



Answer ALL questions. Write your answers in the space provided.

Some questions must be answered with a cross in a box ☒.

Mark only one answer for each question.

If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

- 1 (a) (i) **Figure 1** shows a screen from a music streaming application (App). The App has been designed for adults.

Jenny wants Mohinder to create a version of the App for children.

Give **three** ways that the App could be changed to make it more suitable for children.

(3)

1.....
.....

2.....
.....

3.....
.....



(ii) The App will also stream music videos.

These are the user requirements for the screen:

- video window
- play button
- home button.

Use this space to sketch a rough design of the screen. It must meet the user requirements.

Label your sketch.

(4)



(iii) **Figure 2** shows the settings screen of the music App.

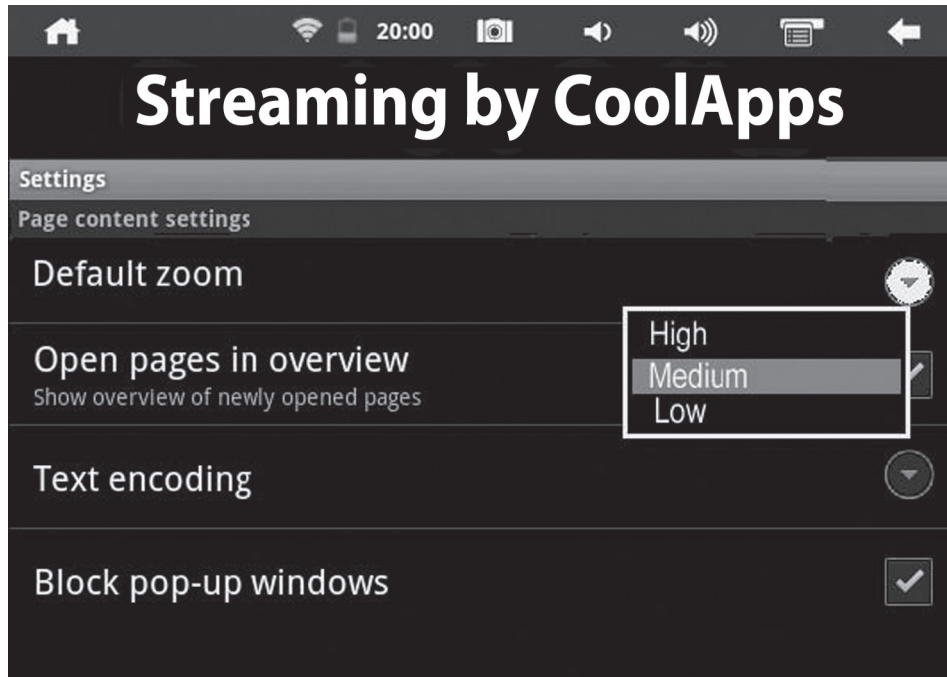


Figure 2

Give **two** reasons why mobile Apps use drop down menus.

(2)

1

2

(iv) Mohinder uses a template file to make sure all screens in the App are consistent.

Give **three** ways that a template file helps to make screens consistent.

(3)

1

2

3



(b) *CoolApps'* products are designed for tablets and smartphones.

The images used when making Apps are often vector graphics.

(i) Identify **one** characteristic of a vector graphic.

(1)

(ii) State why the characteristic you identified makes vector graphics appropriate for use on tablets and smartphones.

(1)

(Total for Question 1 = 14 marks)



2 *CoolApps* is making an e-book for young children.

Before Mohinder starts work on the e-book Jenny makes a moodboard.

- (a) (i) Moodboards help designers and clients share ideas during the early development stages of a product.

Give **two** other benefits of using a moodboard when designing and creating a product.

(2)

1

.....

2

.....

- (ii) This is part of a timeline of the tasks Mohinder must complete after he collects the moodboard.

January	February	March	April		May	
Collect moodboard from Jenny				Produce storyboard	Collect assets	Produce assets

Identify **three** tasks Mohinder could complete between collecting the moodboard and producing the storyboard.

(3)

1

.....

2

.....

3

.....



(iii) **Figure 3** is a design of some buttons Mohinder is creating for the e-book.

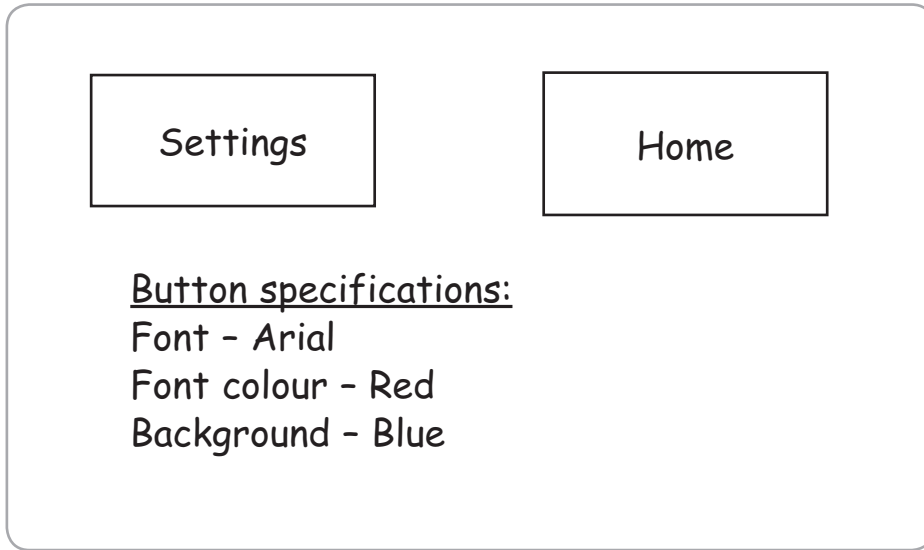


Figure 3

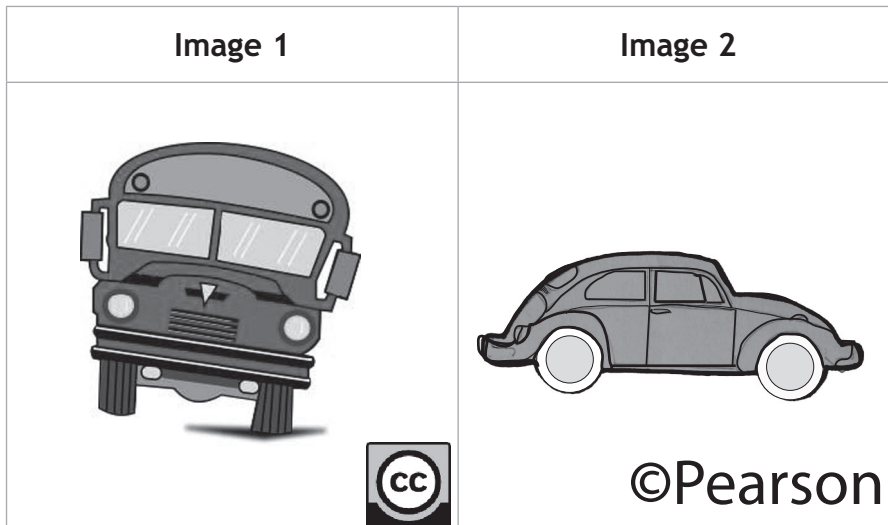
Identify **two** additional pieces of information about the buttons that would improve his design documentation.

(2)

- 1
- 2



(b) (i) Mohinder has started to collect assets for the e-book.
He finds two images on the internet he wants to use.



For each image name the permissions/licences that apply and state how these affect the use of the image.

(4)

Image 1

Permission/licence

.....
How this affects the use of the image
.....
.....

Image 2

Permission/licence

.....
How this affects the use of the image
.....
.....



(ii) Mohinder uses a photo sharing site on the internet to gather more images for the e-book.

Give **two** benefits to **Mohinder** of doing this.

(2)

1

2

(c) Which **one** of these is **not** an image file type?

(1)

A jpg

B avi

C png

D tif

(Total for Question 2 = 14 marks)



3 Users can download *CoolApps'* products from the company's website.

(a) To download a product the user must register with the site.

Figure 4 shows the registration page.

Some data entry fields are missing from the page.

Users will also need to enter:

- Date of birth
- Phone type (Android, Windows, Apple, Blackberry).

Registration Home Bookmarks Settings

CoolApps - Registration

Home Downloads Register Login

To access our products please complete this form. Mandatory fields are marked *.

First Name: Last Name:

* Email:

* Username:
this will be used at login

* Password: * Confirm Password:

Submit

Figure 4

Add data entry fields to the registration page that would allow users to enter the required data accurately.

(4)



(b) **Figure 5** shows a download page from the *CoolApps* website.

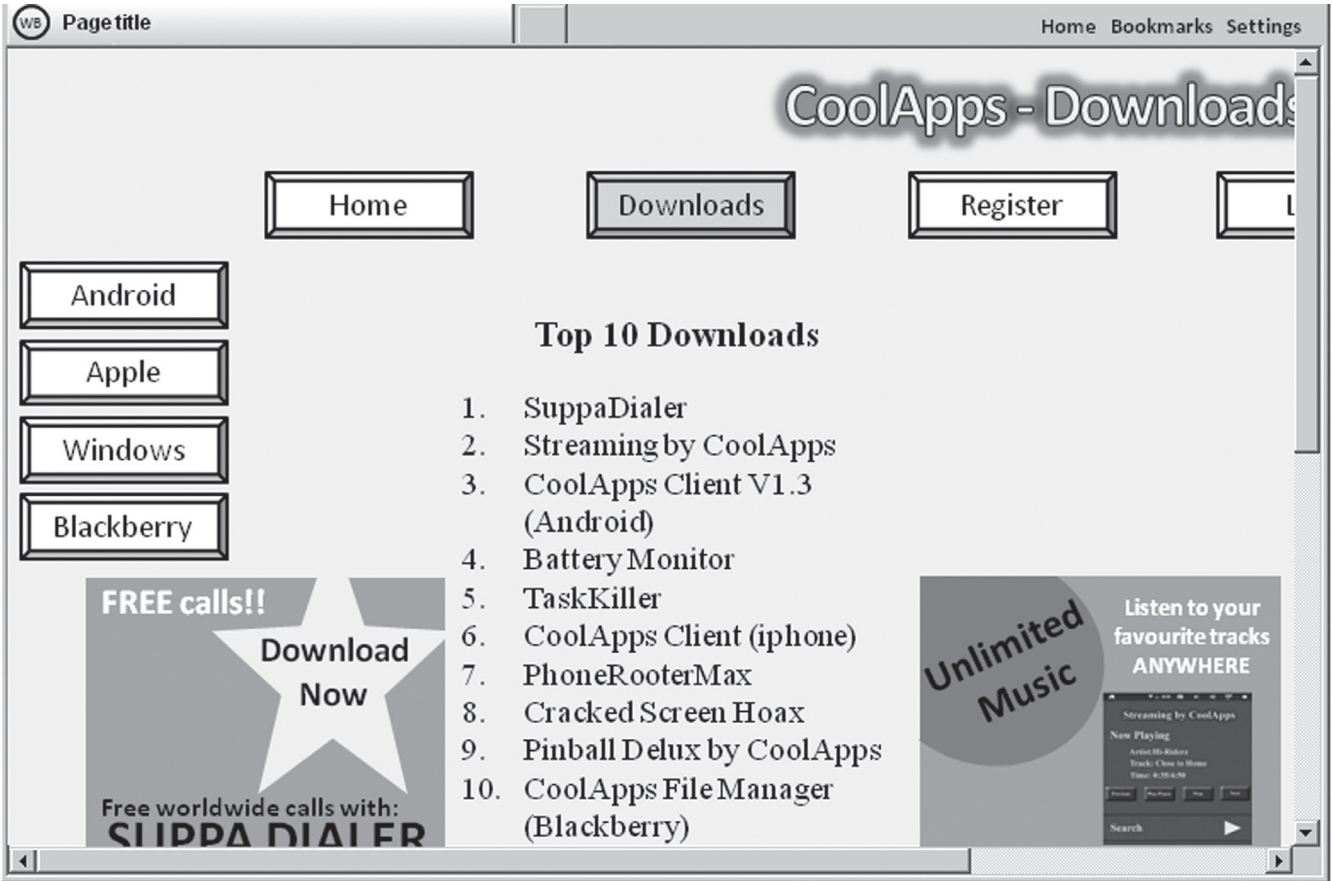


Figure 5

Give **three** ways that the design of the page could be improved.

(3)

1

2

3



(c) Mohinder uses a structure diagram when designing and developing websites.

(i) Jenny has asked Mohinder to add some more pages to the website.

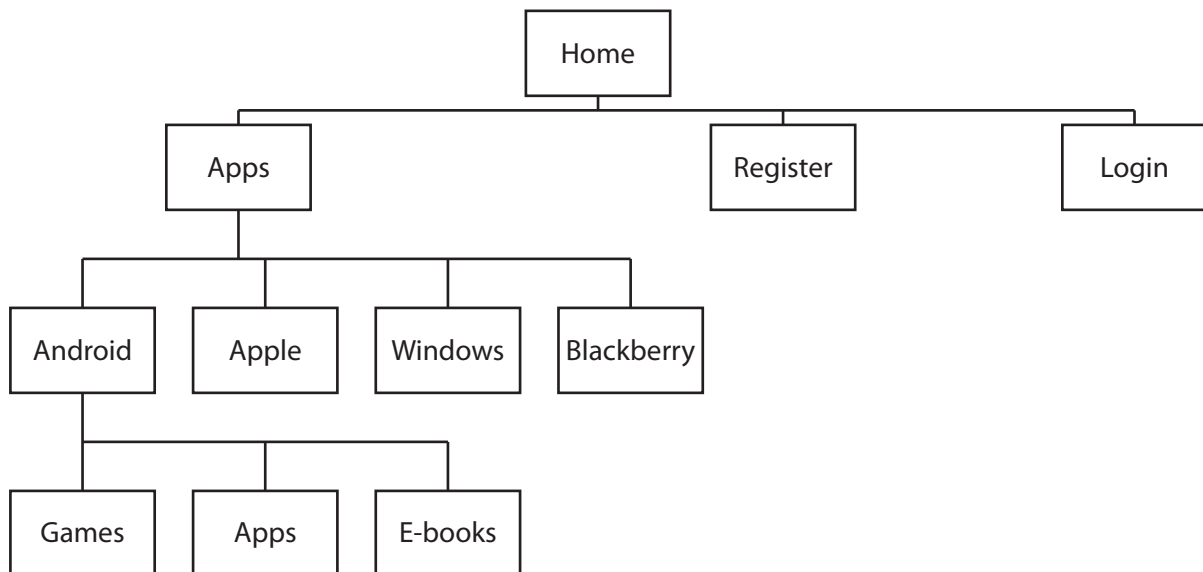
The structure of the site should be:

Home with links to

- **Apps** with links to
 - **Android** with links to
 - Games
 - Apps
 - E-books
 - **Apple**
 - **Windows**
 - **Blackberry**
- **Contact us**
- **Register**
- **Login** with links to
 - **My account** with links to:
 - Reset password
 - My devices

Complete the sitemap to show the structure of the website.

(4)



(ii) Explain why Mohinder creates a structure diagram when designing a website.

(2)

.....

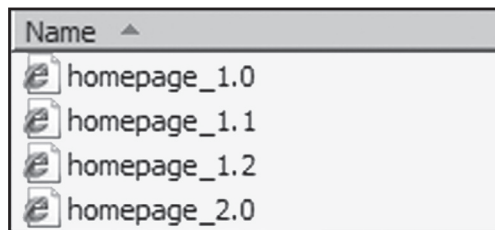
.....

.....

.....

(d) When Mohinder makes changes to his files he gives them a new name.

These are his files:



This is an example of:

(1)

- A Repurposing
- B Document sampling
- C Benchmarking
- D Versioning



(e) **Figure 6** shows Mohinder's website assets folder.

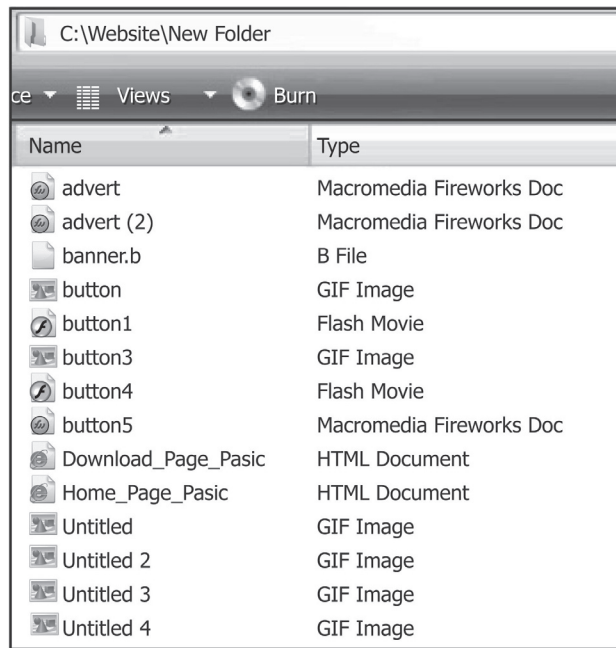


Figure 6

Suggest **two** ways that Mohinder could improve his file management.

(2)

1

.....

2

.....

(Total for Question 3 = 16 marks)



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- 4 Mohinder is creating a game for smartphones. **Figure 7** shows a screen from the game.

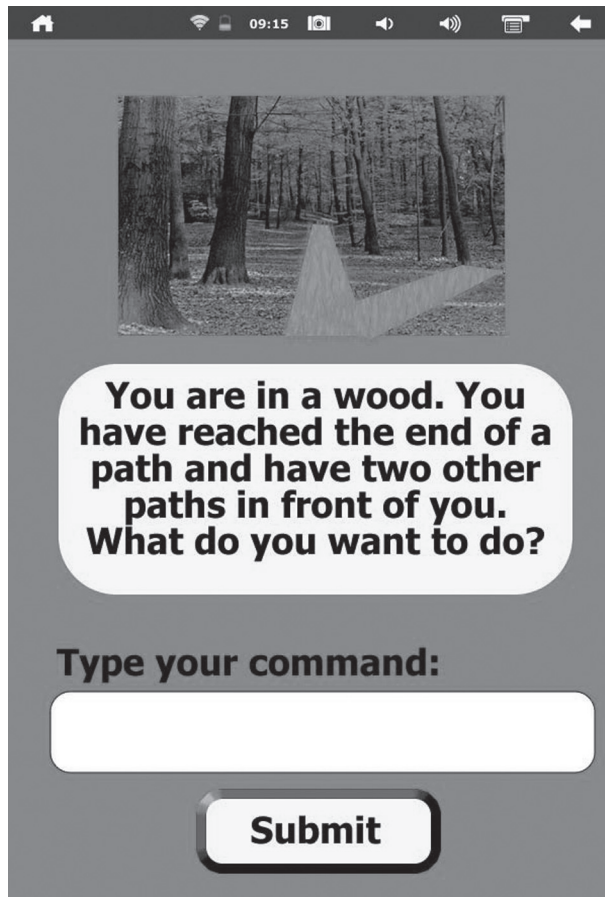


Figure 7

- (a) The player is given an image and a text description of what is happening.

They then type in a command telling the character what to do next.

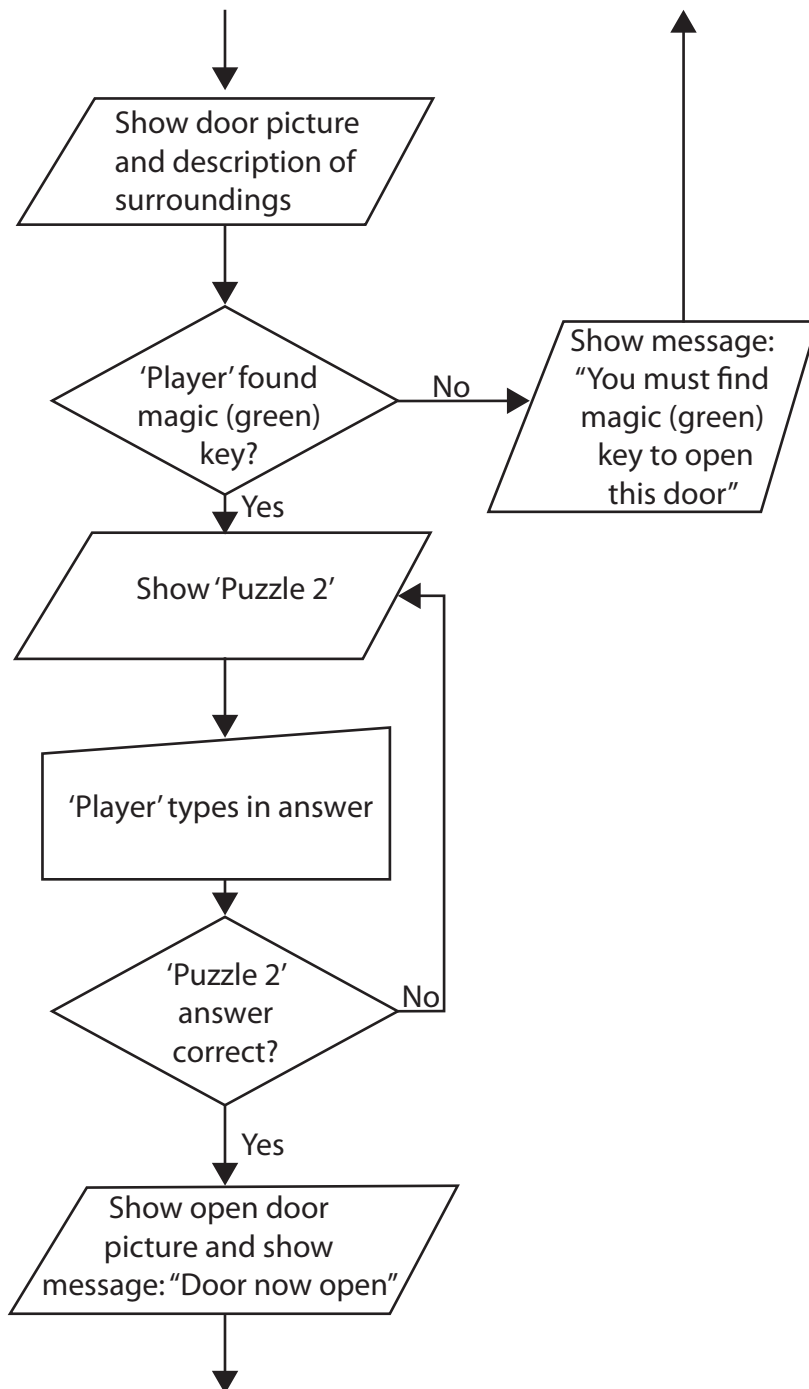
Give **three** reasons why this type of interactivity might have a negative impact on the user experience.

(3)

- 1.....
- 2.....
- 3.....



(b) Jenny has given Mohinder a flowchart showing what should happen in the game.
This is part of the flowchart:



Describe how this section of the game works.

(4)



(c) Mohinder has changed the game's interface. **Figure 8** shows a screen from the latest prototype of the game.



Figure 8

The game uses multimedia and interactive features.

(i) Mohinder has used sound.

Identify **one** other multimedia feature on this screen.

(1)

(ii) Mohinder has added a hyperlink to the *CoolApps* website.

Identify **one** other interactive feature used on this screen.

(1)



(d) (i) Mohinder's game will use a voice-over to explain the story.

Give **one** other type of audio Mohinder could include.

(1)

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(ii) Mohinder needs to source the voice-over for the game.

He could record it himself or use a specialist company.

Explain **one** possible drawback of Mohinder recording the sound himself.

(2)

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***(e)** Colour is an important decision when designing a digital product.

Discuss the considerations that would affect the use of colour when designing a digital product.

(6)

A series of horizontal dotted lines for writing the answer.

(Total for Question 4 = 18 marks)



5 Jenny wants to make the *CoolApps* website more accessible.

(a) (i) Identify **two** accessibility features that could be added.

(2)

1.....

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2.....

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(ii) Jenny wants to be sure the site is suitable for partially sighted users.

She has two fonts to choose from.



Explain why Font 1 would be more suitable than Font 2 for partially sighted users.

(2)

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(iii) It is a legal requirement that digital products meet certain accessibility standards.

Name the law that governs accessibility standards.

(1)

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.....

(iv) Give **one** benefit to *CoolApps*, other than complying with legal requirements, of meeting accessibility standards in their digital products.

(1)

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(b) (i) Mohinder must test all aspects of his digital products.

Explain how Mohinder might test the stability of his digital products.

(4)

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(ii) Mohinder's testing has identified some errors that he needs to fix.

Give **two** reasons why it is important for Mohinder to re-test the products after he has fixed the errors.

(2)

1.....

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2.....

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