

Write your name here

Surname

Other names

Pearson
Edexcel GCSE

Centre Number

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Candidate Number

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Information and Communication Technology

Unit 3: Exploring Digital Design

Thursday 21 May 2015 – 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.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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P 4 2 8 5 4 R A 0 1 2 0

PEARSON

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

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

Glyn is the manager of *Jim's Gym*.

Ceris is a digital designer who has been asked to develop some digital products for the gym.



1 (a) Glyn will make a presentation to the owner of *Jim's Gym*.

Glyn designs his presentation using a storyboard.

This is part of his storyboard.

The design must be consistent.

Complete slide three of the storyboard.

(3)

Monthly Gym Progress Report

Membership Information Here

Membership Graph

Logo

Font: Arial
Heading Size: 42pt
Body Text Size: 14pt

Monthly Gym Progress Report

Staffing Costs Information Here

Staffing Graph

Logo

Font: Arial
Heading Size: 42pt
Body Text Size: 14pt

Equipment Costs Information Here

Equipment Graph

Font:
Heading Size: 42pt
Body Text Size: 14pt



Monthly Gym Progress Report

In May 2015 we launched the 'Jim's Gym' branded exercise clothing and equipment. So far we have seen varied performance in the sales of different items. T-shirts and gym towels have been our best sellers and weight lifting gloves have been our worst selling item. In July we hope to start selling 'Jim's Gym' branded hoodies.

- Sales Figures (May 2015):
 - T-shirts 100 sold
 - Gym towels 95 sold
 - Water bottles 50 sold
 - Gym bags 25 sold
 - Weight lifting gloves 3 sold



Figure 1

(b) **Figure 1** shows a slide from Glyn's first draft of his presentation.

(i) Give **three** ways that the slide could be improved.

(3)

- 1
- 2
- 3

(ii) Glyn wants the style of his presentation to be consistent.

Give **three** ways Glyn could do this.

(3)

- 1
- 2
- 3



(iii) Ceris selects the colours, fonts, and styles that will be used across the digital products.

What is the name for this?

(1)

- A Moodboard
- B Graph
- C Logo
- D House style

(c) A range of images is needed for the gym's products.

(i) Glyn finds this image. He wants to use it in his presentation.



Ceris tells him it is not a good image to use.

Give **two** reasons why this image would **not** be a good choice.

(2)

1

2



(ii) Glyn creates an animated image to use in some of the gym's products.

Which **one** of these file types is **most** suitable for this?

(1)

- A** .tif
- B** .bmp
- C** .svg
- D** .gif

(iii) Which **one** of these file types is the **most** suitable for the **company logo**?

(1)

- A** .png
- B** .jpg
- C** .svg
- D** .gif

(Total for Question 1 = 14 marks)



- 2 Glyn has asked Ceris to create a mobile phone app to help people with their fitness training.

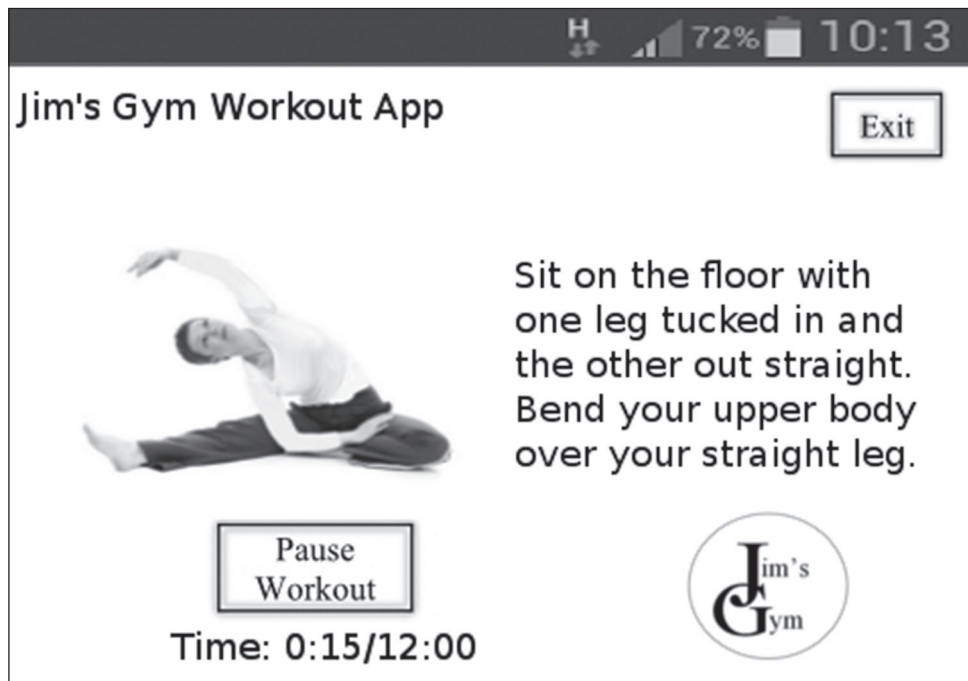


Figure 2

Figure 2 shows the screen from an early version of the app.

- (a) Suggest **four** ways in which the screen could be improved.

(4)

1

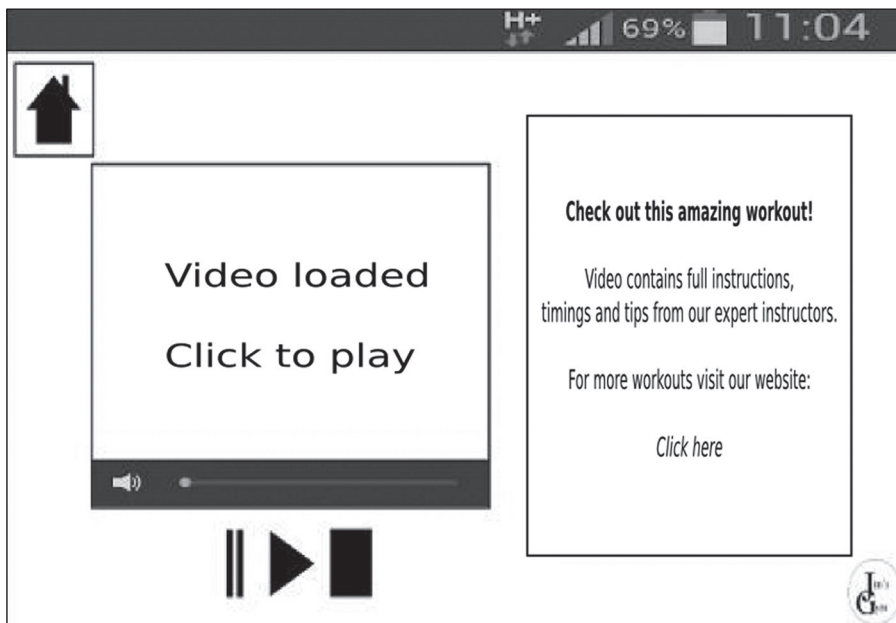
2

3

4



(b) This is another screen from the app.



The screen uses multimedia and interactive features.

(i) Ceris has used sound on this screen.

Identify **one other** multimedia feature she has used.

(1)

(ii) Ceris has added a volume control for the sound on this screen.

Identify **one other** interactive feature used.

(1)

(c) The app makes use of audio.

(i) Identify **one** type of audio and how it could be used within the app.

(2)

Audio type

Use



(ii) Ceris compresses the audio files she uses with a codec.

This will make the overall file size of the app smaller.

Give **two other** reasons for using an audio codec.

(2)

1

2

(d) The choice of file type is important when creating a digital product.

(i) Suggest **one** suitable file type for **audio**.

(1)

.....

(ii) Suggest **one** suitable file type for **video**.

(1)

.....

(e) Ceris decides to use a common image file type for the images in the app.

Explain why she does this.

(2)

.....

(Total for Question 2 = 14 marks)



3 Ceris is developing a database for *Jim's Gym*.

(a) Identify the design document that she would use to show how the tables in the database will be linked.

(1)

(b) The database will be used to book fitness classes for gym members.

This is the screen that the staff will use.

The screenshot shows a web form with the following elements:

- A label "Membership Number" followed by a rectangular input field.
- A label "Class Code" followed by a rectangular input field.
- A circular logo on the bottom left with the text "Jim's Gym" inside.
- A rectangular button labeled "Submit" on the bottom right.

Suggest **three** features that could be added to the screen to improve usability.

(3)

- 1
- 2
- 3



(c) The database will also be used to hold information about the fitness trainers that the gym employs.

Glyn gives Ceris a design specification for a form.

Form Title:

- Trainer Information

Data entry fields:

- Name of trainer
- Class taught

Additional information:

- The form must include the gym logo
- The form must be easy to use

Use this space to sketch a suitable design for a database form that matches the design specification.

(6)

Jim's Gym – Company Database



(d) Ceris must test the database to make sure it works correctly.

She creates a test log to record what she does.

This is part of the test log.

Date	Test Number	Test Data	Description of Test
18/03/2015	1	Aerobics	<i>Class taught field accepts data entry</i>

Suggest **three other** column headings that the test log should contain.

(3)

1

2

3

(e) Ceris gets adults to test the database.

(i) Give **one** characteristic, other than age, of a suitable test user.

(1)

.....
.....

(ii) Explain why this characteristic would make somebody a suitable test user of the gym database.

(2)

.....
.....
.....
.....

(Total for Question 3 = 16 marks)



- 4 Glyn wants to advertise the gym on the internet. He asks Ceris to create a 'pop-up' advert.



- (a) The table shows two of the file properties of the advert.

Give **one** reason why each file property is suitable for a pop-up advert.

(2)

File property	Reason for being suitable
File type gif	
File size 150KB	

- (b) Ceris wants to make sure that the advert can be viewed by as many people as possible.

She tests the advert on different browsers.

Suggest **two other** ways that Ceris could test the advert.

(2)

1

.....

2

.....



(c) The advert will contain sound.

The audio files Ceris uses have been compressed with a codec.

Give **two** disadvantages of using a codec to compress the audio file.

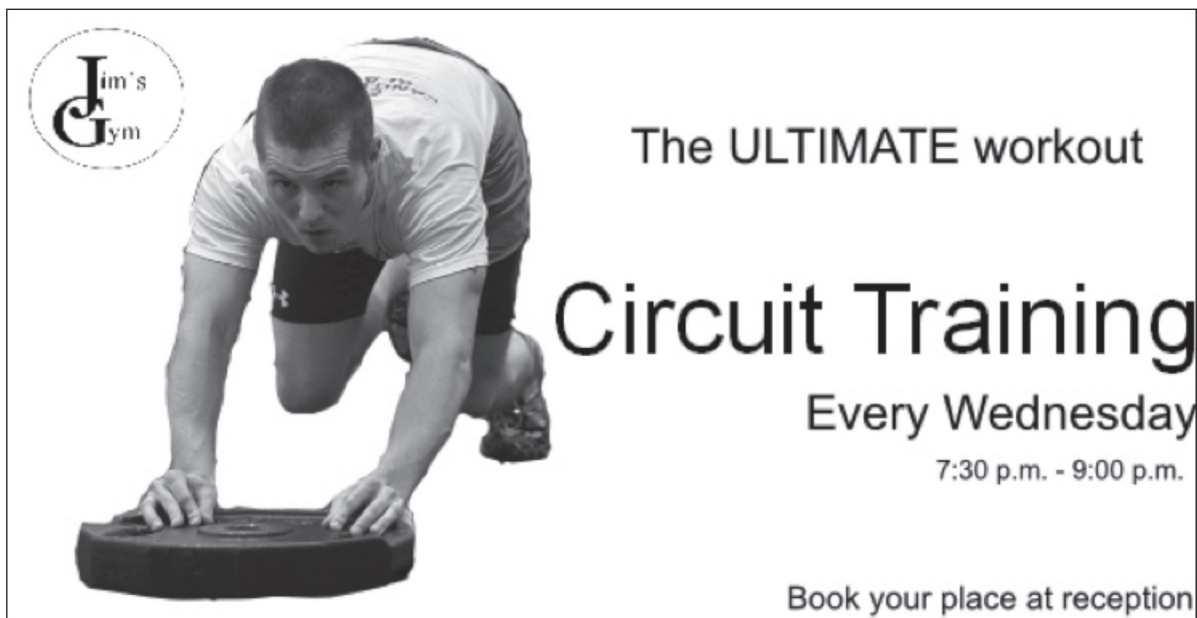
(2)

1

2

(d) Ceris has created a poster to advertise a new class that the gym will offer. It will be shown on screens in the gym.

This is the poster Ceris has created.



(i) Ceris creates another poster for a different fitness class. She chooses to re-purpose some of the digital content from her first poster.

Explain why she might re-purpose digital content.

(2)

.....

.....

.....

.....



(ii) Ceris wants to combine her posters into one continuous rolling advert.

These are the design criteria for the rolling advert.

File Name: new_classes_advert
Purpose: Digital poster
Target file type: swf
Target resolution: 1280 x 720 pixels
Timing(s):

- Poster 1 (Pilates) – 15 seconds
- Poster 2 (Aerobics) – 5 seconds
- Poster 3 (Circuit training) – 20 seconds

Navigation:

- Forward button to move to next advert

Identify **two** design criteria that may not be appropriate for use in this advert.

Give a reason why each is not appropriate.

(4)

1

Reason

2

Reason



5 Glyn has asked Ceris to redesign the gym's website.

(a) This is the redesigned home page for the website.

(i) Ceris has included a feature that lets the user change the font size.

Give **one other** accessibility feature Ceris might include.

(1)

(ii) Explain why it is important that a company's website adheres to accessibility standards.

(3)



(b) The website will include a gym user satisfaction survey.

(i) Ceris wants to do some research before creating the survey.

Identify **four** areas, other than user age, that her research might cover to ensure that the survey is fit for purpose.

(4)

1

2

3

4

(ii) Users must enter their age when completing the survey.

Ceris tests the functionality of the 'Age' field.

The table shows some of the test data she uses. Give **one** reason why she has chosen each item of test data.

(4)

Test data	Reason for choosing this test data
4	
35	
At	
1000	



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