



2004 VCE VET Multimedia GA 2: Computer-based examination

GENERAL COMMENTS

The students sitting the 2004 examination were the first to undertake the Multimedia program based on the new training package. Two significant new areas were introduced in the program with the inclusion of the following units of competence: 'ICPMM15DA: Develop a multimedia script' and 'CUFWRT05A: Write content and/or copy'.

Overall, results suggested that students had successfully grasped the fundamentals of the areas which had appeared in similar forms in previous examinations, these being 'Apply principles of visual design and communication to the development of a multimedia product', 'Create 2D digital animation' and 'Create web pages with multimedia'.

The units of competency covered in the 2004 exam required students to show their understanding of the needs of the audience/client. In the short answer section, those students who obtained maximum marks were able to take their underpinning skills and knowledge and link these to the needs of the client as identified in the questions.

Students often answered questions in terms of a specific software tool, rather than describing the broader concepts and their solutions. Teachers are encouraged to focus on central concepts and skills, and ensure that their students can describe and explain the solutions in a sense that is independent of a particular piece of software.

It appeared that many students were not familiar with the concept of separating the code for web page layout from the code that generates the content for the page (for example, CSS, XML).

Question 12 of Part B showed that students' level of understanding of the logic of scripting varied greatly.

Students demonstrated an improved understanding of the concept of copyright and were able to provide appropriate examples from within their field of operation.

The following specific information identifies the unit of competence (UoC) from which the question is derived. It should not be assumed that each question will relate to a single UoC, as some underpinning skills and knowledge are referred to in multiple UoCs. As in the real world where the needs of the client must be met, the multimedia examination may require an understanding of both the background knowledge and skills of the individual area and the interaction of multiple areas of competency.



SPECIFIC INFORMATION

Section A – Multiple-choice

This table indicates the number of students who chose each option. The correct answer is indicated by shading.

	Unit of Competence	A	B	C	D
Question		%	%	%	%
1	CUFMEM07A	15	13	59	13
2	ICPMM65DA	11	8	5	77
3	ICPMM65DA	38	4	9	48
4	ICPMM65DA	11	32	10	48
5	CUFMEM07A	4	3	23	70
6	CUFMEM07A	28	9	28	34
7	ICPMM65DA	7	61	29	3
8	CUFIMA03A	2	2	95	1
9	CUFWRT05A	8	50	20	22
10	CUFIMA03A	54	28	12	6
11	CUFIMA03A	70	23	2	5
12	CUFIMA03A	6	3	69	22
13	ICPMM15DA	25	27	39	8
14	ICPMM65DA	28	34	27	11
15	ICPMM65DA	23	12	5	60
16	ICPMM65DA	38	18	4	39
17	ICPMM15DA	11	18	45	25
18	CUFWRT05A	1	7	84	8
19	CUFWRT05A	34	8	12	46
20	CUFWRT05A	50	20	27	3

The multiple-choice questions highlighted the need for a clearer understanding of absolute URLs and the tools used to create input from web pages.

Section B – Short answer

Question 1 (CUFMEM07A)

Marks	0	1	2	Average
%	27	25	48	1.2

1a

Acceptable answers included: colour, tone, shape/form, line, texture, balance, proportion and composition.

1b

There were many acceptable answers for this question, depending on the answer to Question 1a. An example for the design principle 'colour' is:

- the sun symbolises heat/summer due to the use of warm spectrum colours
- the snowflake symbolises cold/winter due to the use cold spectrum colours.

Question 2 (ICPMM65DA)

Marks	0	1	2	Average
%	19	40	41	1.2

2a

A lossy file format permanently eliminates information when an image is compressed. References to redundant data were also acceptable.

2b

The JPEG is most effective for photographs and other complex still images.

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Question 3 (CUFMEM07A)

Marks	0	1	2	3	4	Average
%	5	20	50	12	14	2.1

One mark was given for the definition and another mark for a relevant example.

3a

The most common definitions referred to copyright as pertaining to ownership of a physical creation, usually by the person(s) that created it. Other answers that demonstrated an understanding of the concept described how there are varying types of copyright depending on what type of physical creation it is; copyright exists in a creation as soon as it is created.

Copyright examples could include pictorial and graphic works, musical works, audio-visual works and sound recordings.

3b

Intellectual Property is any product of human intellect that is unique and un-obvious with some value in the marketplace.

Intellectual property can be an idea, invention, literary creation, unique name, business model, industrial process or computer program code.

Question 4 (CUFIMA03A)

Marks	0	1	2	Average
%	20	36	44	1.3

4a

The major difficulty when combining frame-based animation with sound is synchronising the frame-based animation to the audio, which is time-based.

It was also acceptable to identify physical restrictions, such as a machine constraint, causing an internal bottleneck.

4b

Acceptable solutions to overcome the problem (depending on the answer given in 4a) included to set up key frames or address technical limitations. Given that the core concept of this question was timing, it was necessary for the answer to refer to timing to be awarded the mark (unless a physical restriction was accepted for Question 4a).

Question 5 (CUFIMA03A)

Marks	0	1	2	Average
%	39	24	37	1.0

5a

The animation format that does not require a plug-in for the WWW is 'animated GIF' or 'GIF'.

Although an uncommon file format, swf was also an acceptable answer.

5b

The main disadvantages of this format include the quality of colour (limited to eight bit) and image quality.

A common error in this question was for the student to identify an advantage instead of a disadvantage.

Question 6 (ICPMM65DA)

Marks	0	1	2	Average
%	72	10	18	0.5

Although the focus of this question was web site management, some students answered the question in relation to a single page. Both approaches were accepted by assessors.

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One mark was given for identifying the tool or approach used to separate web content and presentation; for example, content management system (CMS), Cascading Style Sheets (CSS), or template. For a single page, a table or layers (describing the separation of content from layout elements) was accepted.

Another mark was given for a description of how the tool/approach operates; for example, format defined separately from the content; web pages and links dynamically generated from information contained in a database.

Question 7 (ICPMM65DA)

Marks	0	1	2	Average
%	62	8	30	0.7

7a

The 'alt' attribute in HTML provides a text string to describe the image.

7b

The 'alt' attribute provides accessibility for people who cannot see images; it can be read out from a text reader or describe an image that may not have loaded correctly or takes a long time to load over a slow internet link.

Question 8 (ICPMM65DA)

Marks	0	1	2	Average
%	27	27	46	1.2

One mark was awarded for each reason for using the pdf file format. Acceptable responses included that pdf:

- can handle multiple page documents
- is a freely available plug-in
- keeps document formatting
- is a cross-platform
- enables text within the document to be searched
- can be downloaded as a separate file and kept for later viewing/printing
- has a reduced file size compared to other file formats
- has embedded navigation.

Question 9 (ICPMM65DA)

Marks	0	1	2	3	4	Average
%	91	4	2	1	2	0.2

9a

'Stateless' describes the approach implemented within the World Wide Web where web servers process all URL requests independently of previous requests. Once a request is met it is lost from memory.

9b

One mark was allocated for each of two techniques used to overcome this issue. Acceptable responses described:

- passing information from page to page in the URL or through fields in a form
- setting up a session between the client and server and using session variables
- using cookies to store information about interaction on the user's computer
- using coding functions/features within programs such as Director and Flash
- using server side variables which can be stored and used on a number of different pages.

Question 10 (ICPMM15DA)

Marks	0	1	2	Average
%	66	18	16	0.5

Two of the following:

- sequential
- selection
- repetition (loops)
- while structure
- go to
- on press (event handler)

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- button
- event handlers
- if.

Question 11 (ICPMM15DA)

Marks	0	1	2	Average
%	68	9	23	0.6

A local variable is declared within a function and can only be referenced within that function, whereas a global variable is declared at the top level of a script and can be referenced within other functions on the page.

Question 12 (ICPMM15DA)

Marks	0	1	2	3	4	5	6	Average
%	55	4	18	3	15	0	5	1.4

The three faults that need to be fixed are:

- Line 3: this line will give a negative amount. This can be addressed by making the line `amountPaid – amountOwed`
- Line 6: this line gives an aggregate, not the difference. This can be addressed by making the line `amountOwed – amountPaid`
- No line: the situation where the amount paid equals the amount owed is not covered. This can be addressed by creating a line `If amountPaid = amountOwed.`

Students' answers tended to fall in three groups: students who gave no response or who were guessing; those who were able to identify two of the three faults; and those who were able to identify all three faults.

One mark was available for identifying where the fault occurred (generally by giving the line number or the line text) and one mark for describing the error or fault. It was acceptable to identify either what the line would give that was incorrect, or how the line would be adjusted to provide a correct answer.

Question 13 (CUFMEM07A)

Marks	0	1	2	Average
%	2	22	75	1.8

Two advantages of using a storyboard are that:

- omissions may be spotted
- it is a common point of reference – there are no misunderstandings
- it is an effective use of planning time
- it allows for the scheduling of timelines.

Question 14 (CUFWRT05A)

Marks	0	1	2	3	Average
%	20	27	24	29	1.6

Ways in which the online presentation of text is different to paper-based presentation of text include:

- web text is usually split into smaller segments for presentation
- web users can usually access any page (WWW) and move between pages as they choose, therefore pages should be independent
- additional information may be added to web pages through hyperlinks
- web users don't like to scroll through masses of text, so the most important information should be put at the top ('inverted pyramid')
- the web is an informal and immediate medium, compared to print
- information on the web can be easily updated.

Question 15 (CUFWRT05A)

Marks	0	1	2	Average
%	11	42	48	1.4

The following is an example of an acceptable answer:

The bird was sitting in **the tree** amongst the leaves. A **cat** watched. When the **leaves rustled** they **looked** at each other.



This question required students to summarise the text by capturing the five major elements and still making sense. One mark was given for identifying each major element and an additional mark if the summary fit the production count of six seconds (or was within the range of 22–28 words). Students were generally able to include the necessary items, but many did not cut the word length to the required read time.

Section C – Practical section

Many students performed well in the practical section. Most students did well on the web page task, although some had trouble using web editor templates (Dream Weaver and FrontPage) to construct their web pages. Students should be able to use software packages independently of the provided templates. Other students ran out of time while trying to use frames for their web site construction. Students should be encouraged to create the simplest solution that meets the requirements of the described task.

Many students converted the flat colour logo into a JPEG format and the photo into a GIF. This would appear to demonstrate a lack of understanding by students of 'fit for purpose' file formats, as opposed to being unable to use the software tools to convert files to other formats.

The basic design principle to avoid scrolling within web pages was ignored by many students. This may have been due to students not planning the various page elements required for the questions during reading time.

A common error occurred where students completed the website in Flash, Fireworks or FreeHand and then simply renamed the files *.html. This meant the websites did not demonstrate the functionality required to obtain marks in all sections. Although Flash enables the automatic generation of HTML for a web page containing a movie, students should be able to insert that HTML into another page.

The animation task was handled well, but a disappointing number of students did not include it in their web page. This requirement was clearly described in the VCAA advice to schools early in 2004.

Flash would appear to be gaining ground as the animation tool of choice for Victorian providers of this course.

Again this year, a significant percentage of students saved work to the incorrect file location. It is important that the teaching program highlight the importance of completing and saving work in the required file format and in the required location. Students are at risk of their work not being marked if it is not in the correct file location using the required naming conventions described in the examination documentation and questions.

Write and include copy; design page layout

Step 1 (CUFWRT05A)

Marks	0	1	2	3	Average
%	14	8	25	53	2.2

The introduction should have summarised the information on the other pages.

- One mark was given for using small (3/4) sentences (about 25 words). No marks were awarded here if the text was too long or if the student simply cut and pasted the text provided on the other pages.
- One mark was given for the use of action terms.
- One mark was given if the answer summarised the other pages. No marks were awarded if the answer did not mention the concepts/services identified on each of the other pages.

Step 2 (ICPMM65DA)

Marks	0	1	Average
%	13	87	0.9

Students were awarded one mark for inserting the introduction in the home page

Step 3 (ICPMM65DA)

Marks	0	1	Average
%	41	59	0.6

Students were awarded one mark for making the layout of the page usable by ensuring that the page fitted on a single screen at 800 pixel resolution (with minimal scrolling).

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Manipulate and insert images

Step 4 (ICPMM65DA)

Marks	0	1	2	Average
%	17	28	55	1.4

Students were awarded one mark for saving the image as a JPEG and one mark for resizing it to 400x194.

Step 5 (ICPMM65DA)

Marks	0	1	2	Average
%	11	50	39	1.3

One mark was awarded for saving the logo as a GIF and one mark for removing the black outline.

Step 6 (CUFMEM07A)

Marks	0	1	2	Average
%	12	4	84	1.7

One mark each was given for correctly inserting the GIF and the JPEG.

Create navigation

Step 7 (ICPMM65DA)

Marks	0	1	2	3	4	Average
%	16	1	1	5	78	3.3

One mark each was given for creating the links 'about', 'residential' and 'mulch cost', and a further mark for making the links look like links (that is, intuitive links).

Step 8 (ICPMM65DA)

Marks	0	1	Average
%	22	78	0.8

Once a successful link was demonstrated, one mark was awarded.

Create a script and incorporate into a webpage

The conceptualisation of a calculator and the design of a script to fulfil the task were not well completed. Students should consider what answers they can create for each question – even if they are unable to answer the section in full.

Step 9 (CUFWRT05A)

Marks	0	1	2	Average
%	17	51	32	1.2

Students were awarded one mark for including a suitable heading on the mulch calculator web page and another mark for an explanation of how to use the page.

Step 10 (ICPMM15DA)

Marks	0	1	Average
%	78	22	0.2

One mark was given for constructing a script that enabled the user to enter a quantity of mulch in terms of cubic metres.

Step 11 (ICPMM15DA)

Marks	0	1	Average
%	82	18	0.2

One mark was awarded if the selection process enabled the user to select the quality of the mulch from either filtered (which had a price of \$40 per metre) or unfiltered (price of \$20 per metre).

Step 12 (ICPMM15DA)

Marks	0	1	2	3	Average
%	85	10	1	4	0.3

One mark was awarded if the script took the input, another mark was given if the cost was calculated correctly and the third mark was given if the cost was shown on the page.

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Step 13 (ICPMM15DA)

Marks	0	1	Average
%	81	19	0.2

One mark was awarded for creating a button to execute the script (this may have been integrated into the selection process in Question 11).

2D animation

Step 14 (CUFMEM07A)

Marks	0	1	2	3	Average
%	9	1	3	88	2.7

One mark was given for drawing the ground with an upward slope, another mark for drawing the sky, and the third mark was given for colouring the image.

Step 15 (CUFIMA03A)

Marks	0	1	2	Average
%	9	4	87	1.8

One mark was given for importing both the wheelbarrow and wheel, and another for correctly attaching the wheel to the wheelbarrow.

Step 16 (CUFIMA03A)

Marks	0	1	Average
%	9	91	0.9

One mark was awarded for importing the person's body.

Step 17 (CUFIMA03A)

Marks	0	1	Average
%	46	54	0.6

One mark was given for correctly creating the run time as approximately six seconds.

Step 18 (CUFIMA03A)

Marks	0	1	2	3	Average
%	19	10	21	50	2.0

One mark was given for showing the wheelbarrow being pushed from left to right, another mark for ensuring that the action was smooth, and a third mark if the person pushed and kept hold of the wheelbarrow.

Step 19 (CUFIMA03A)

Marks	0	1	2	Average
%	38	17	45	1.1

One mark was given if the wheel turned and another was awarded for making the action realistic (for example, with multiple rotations).

Step 20 (CUFIMA03A)

Marks	0	1	2	Average
%	32	28	40	1.1

One mark was given if the person's legs partly cycled and another if they completed a full cycle.

Step 21 (ICPMM65DA)

Marks	0	1	2	Average
%	36	7	57	1.2

One mark was awarded for including the animation in the home page and another if the animation ran on the page.