



BOARD OF STUDIES
NEW SOUTH WALES

2013 HSC Industrial Technology Multimedia Technologies Marking Guidelines

Section I

Multiple-choice Answer Key

Question	Answer
1	A
2	A
3	D
4	B
5	C
6	C
7	A
8	D
9	C & D
10	B & C

Section II

Question 11

Criteria	Marks
• Identifies TWO appropriate graphics file formats	2
• Identifies ONE appropriate graphics file format	1

Answers could include:

PNG, GIF, TIFF

Question 12

Criteria	Marks
• Describes characteristics of TWO or more factors that affect the quality of captured video footage	3
• Describes characteristics of a factor that affects the quality of captured video footage OR	2
• Identifies factors that affect the quality of captured video footage	
• Identifies a factor that affects the quality of captured video footage	1

Sample answer:

The quality of the video capture will be affected by frame rate and the resolution of the captured video. A high frame rate will result in smoother playback of the captured video. A low frame rate may be 'choppy' or jump segments of footage. The resolution of the captured footage will determine the size of the playback video and may be too small to see or pixelate when enlarged.

Answers could include:

- Frame rate of capture. The higher the frame rate, the smoother the video playback
- Resolution of the capture. Low resolution captures will be either too small to see clearly or pixelate when enlarged
- GPU, too little RAM and graphics processing ability to run game and capture at the same time may cause lag
- File format. Compressed file formats may lose detail.

Question 13

Criteria	Marks
• Describes the effects on quality of reducing the colour depth	3
• Describes an effect on quality of the colour depth	2
• Identifies an effect on quality of the colour depth	1

Sample answer:

When the colour depth is reduced, an image will have a smaller range of colours to use. This will cause colour loss as well as possible loss of details such as shades of a colour or definition.

Answers may include:

- Loss of colour
- Loss of image detail

Question 14

Criteria	Marks
• Indicates the main advantages in using CSS to produce a website	3
• Indicates an advantage in using CSS to produce a website	2
• Provides some relevant information	1

Sample answer:

Cascading style sheets allow web designers to ensure fonts, layouts and colours are consistent throughout the website. It requires less bandwidth to load a page as there is a single location for style formats that affect the whole site. CSS rules can be changed and automatically update that feature across the whole site.

Answers could include:

- CSS creates a consistent styling of fonts, layouts and colours throughout a website.
- Websites using CSS require less bandwidth to load as there is one location needing to be accessed for style formats.
- The speed at which a website can be produced or changed. When a CSS rule is changed it automatically updates the whole website.

Question 15

Criteria	Marks
<ul style="list-style-type: none">• Outlines an advantage and disadvantage of cel-based animation techniques and path-based animation techniques	4
<ul style="list-style-type: none">• Outlines an advantage of cel-based animation and path-based animation AND a disadvantage of cel-based animation or path-based animation OR <ul style="list-style-type: none">• Outlines a disadvantage of cel-based animation and path-based animation AND an advantage of cel-based animation or path-based animation	3
<ul style="list-style-type: none">• Outlines an advantage and disadvantage of cel-based animation or path-based animation OR <ul style="list-style-type: none">• Outlines an advantage or disadvantage of cel-based animation and path-based animation	2
<ul style="list-style-type: none">• Provides some relevant information regarding the advantages and disadvantages of animation techniques	1

Sample answer:

Cel-based animation is a time-consuming process that requires each frame of the animation to be individually created. Path-based animations are faster to produce as the software fills in frames automatically. Cel-based animation allows the author to control every aspect of the animation while path-based animations are limited to the automatic generation of cells between two states.

Answers could include:**Cel-based**

- Allows for more complex animations with every pixel of every frame open to change
- Very time consuming
- Hard to change if animation is not moving as desired
- Can use photo realistic images eg claymation

Path-based

- Has limitations on animation details as processes are automated – such as:
 - Complex changes to shapes or images over time are often not possible
 - Animation paths can be restrictive
- Fast to produce
- Easy to revise or change

Section III

Question 16 (a)

Criteria	Marks
• Provides a detailed explanation of why it is important for a company to comply with safety standards	6
• Provides a sound explanation of why it is important for a company to comply with safety standards	4–5
• Provides a limited explanation of why it is important for a company to comply with safety standards	2–3
• Provides some relevant information	1

Sample answer:

It is important for a company to comply with safety standards for a number of reasons. Firstly, they are legally responsible for the safety of their employees and can be both financially and even criminally liable should the company be at fault for the injury or death of an employee. Another reason to comply with safety standards is to ensure that production is not disrupted. An industrial accident can cause a stop in production, which in turn will result in financial losses on top of the financial losses to paying worker's compensation for an injured worker. Injured employees may also have to be replaced and this will also add to the cost of workplace injuries, as it will be an extra wage to pay out. Morale and productivity could suffer as employees do not feel safe in the workplace and can even reach a point of production being stopped by employees until their right to a safe work environment is met.

Answers could include:

- Duty of care
- Government legislation
- Financial security
- Marketability of a product
- Good will of company
- Ethical issue

Question 16 (b)

Criteria	Marks
• Provides a detailed assessment of strategies a company could implement to establish and maintain a safe work culture	9
• Provides an assessment of strategies a company could implement to establish and maintain a safe work culture	7–8
• Relates strategies a company could implement to establish and maintain a safe work culture	4–6
• Attempts to provide strategies a company could implement to establish and maintain a safe work culture	2–3
• Provides some relevant information	1

Sample answer:

A range of methods could implement to establish and maintain a safe work culture are; establish a WHS committee, erect clear signage, and train employees.

Establishing a WHS committee ensures that all members of the work place are represented and participate in risk assessments, site maintenance and site inspections. This method is very effective in ensuring communication of WHS requirements is clearly spread between all levels of the work force. It provides the opportunity for different perspectives on work place safety to be considered. A WHS committee also spreads responsibility for workplace safety across the entire company, which ensures everyone applies a consistent approach to safe work practices and management practices and fosters a positive and safe work place culture.

Erecting clear signage that utilises graphical information, over complex written policies, allows for both a reminder of safe work practices in hazardous areas and clear communication of safe work practices to workers with limited literacy. Signage is an excellent method to maintain a safe workplace culture as they are quick to recognise and serve as constant reminders of safe work practices and hazards to people who may not have any training eg visitors to the workplace. Signage is particularly useful in the event of new safety requirement or hazard. It is far quicker to erect a slippery floor sign over a spill than send a memo out to all staff.

Training is another excellent method to ensure and maintain a safe workplace culture. It directly communicates safe work practices to employees and can ensure each employee is assessed as to how well they understand safety requirements or the correct procedure to work with hazardous materials, machinery or environments. It gives the employees a chance to clarify their understanding of the safe work practices as well as possibly develop their own skills in the use of machinery. When it is registered what an employee is trained to do, it is easier for management to ensure the employees are placed appropriately in a production line to ensure the employees own safety and the safety of others.

Answers may include:

Assess a range of methods that could implement effectively to establish and maintain a safe work culture.

- Establish a WHS committee (Risk assessments / Site maintenance + inspection)
- Improve signage so that people who can't read can understand what is required
- Train employees re: WHS procedures eg evacuation
- Practice evacuation procedures once every 6 months
- Improve communication — meetings, posters, emails, message boards
- Train employees — in service and keep a register of trained personnel to identify training required
- Keep and maintain a register of incidents
- Monitoring
- Maintenance
- Supply PPE
- Site meeting
- Risk assessments

Industrial Technology Multimedia Technologies

2013 HSC Examination Mapping Grid

Section I

Question	Marks	Content	Syllabus outcomes
1	1	Multimedia Elements	H4.3
2	1	Multimedia Elements	H1.2, H4.1
3	1	Multimedia Elements	H4.3
4	1	Multimedia Elements	H4.3
5	1	Intellectual Property and Ethics	H7.1
6	1	Multimedia Elements	H1.2
7	1	Multimedia Elements	H1.2
8	1	Multimedia Elements	H1.2, H4.3
9	1	World Wide Web	H3.2, H4.3
10	1	Multimedia Elements	H3.2, H4.3

Section II

Question	Marks	Content	Syllabus outcomes
11	2	Multimedia Elements	H1.2, H4.3
12	3	Multimedia Elements	H4.3
13	3	Multimedia Elements	H4.3
14	3	World Wide Web	H1.2, H4.3
15	4	Multimedia Elements	H1.2, H4.3

Section III

Question	Marks	Content	Syllabus outcomes
16 (a)	6	OHS (WHS)	H2.1, H6.1, H7.1, H7.2
16 (b)	9	OHS (WHS)	H2.1, H7.1, H7.2