2014 HSC Industrial Technology Multimedia Technologies Marking Guidelines

Section I

Multiple-choice Answer Key

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

Section II

Question 11

Criteria	Marks
• Identifies ONE injury from excessive computer use	1

Sample answer:

Repetitive Strain Injury (RSI)

Answers could include:

- Carpal tunnel
- Eye strain
- Back strain
- Neck strain

Question 12

Criteria	Marks
• Provides characteristics and features of motion capture and how it has improved 3D character animation	3
• Names and sketches in general terms how motion capture has improved 3D character animation	2
• Identifies a feature of motion capture	1

Sample answer:

Motion capture actor is dressed in a skin tight suit with visual markers placed on specific parts of the body to track movement. A special camera records and tracks the movements of the markers and then animators apply those movements to 3D models. This makes for a more realistic, natural and life-like movement for a character, and also cuts time in creating the animation.

Answers could include:

- Save time = cost effective
- Realistic animated movement
- Also used in video games for realistic character movement

Question 13

Criteria	Marks
• Correctly provides advantages and disadvantages of midi format in a multimedia product	3
• Provides an advantage and a disadvantage of midi format in a multimedia product	2
• Provides a reason for or against using a midi in a multimedia product	1

Sample answer:

MIDI files are very compact file sizes and very good for low bandwidth delivery (add MIDI to website with very little download time). Midi cannot store human speech or other day-to-day sounds. Midi can only store the sounds of the instruments it has been programmed to use.

Answers could include:

- Can use instrument input
- Smaller file size
- Easily change components notes
- Sound generated through sound card
- Less quality

Question 14

Criteria	Marks
• Provides characteristics and features of HTTP and RTSP	3
• Sketches in general terms TWO factors that identify the difference between HTTP and RTSP	2
• Recognises a difference between HTTP and RTSP	1

Sample answer:

RTSP
- Only a small packet of the file is cached
- Better for long movies
- Can do live streaming: 'live broadcast'

HTTP
- File cached to computer
- Replay is easy
- Can't do live streaming

Answers could include:

RTSP makes a lot more efficient use of bandwidth as you are only using bandwidth for parts of the video that are actually watched as opposed to HTTP delivery where the whole file gets delivered.

Question 15

Criteria	Marks
• Provides characteristics and features of legal and ethical issues that need to be considered in responsibly developing a multimedia presentation aimed at teenagers for the World Wide Web	5
• Sketches in general terms the legal and ethical issues that need to be considered in developing a presentation aimed at teenagers for the World Wide Web	3–4
• Identifies a legal and/or an ethical issue that need to be considered in the development of a presentation for teenagers on the World Wide Web	1–2

Sample answer:

Legal aspects that need to be considered are copyright, security and protection. Copyright refers to the legal protection for people who express ideas and information in a variety of forms. For a company to develop a presentation, using information that was not created by them, the company needs to seek permission. Security and protection – there are also laws designed to protect information systems and to prosecute people who commit computer crime. If the presentation requires payment or for the user to fill out personal information the company needs to make sure that steps are in place to protect that information.

Ethical issues that are to be considered include information presented to the target market, appropriate usage of the information in the presentation and the accuracy of the information. Information for the presentation needs to be directed and appropriate for the teenage market.

Appropriate use of the information is an issue of concern throughout society. Many organisations monitor online activity and there are guidelines that users are expected to follow. The company needs to make sure that they have no offensive or obscene material. The quality of a multimedia presentation will depend significantly on the integrity of the data it contains. It is important for the company to cross-reference any material before adding to the presentation – particularly if it is sourced from the internet.

Section III

Question 16 (a)

Criteria	Marks
• Detailed understanding of the characteristics and features of how government legislation has impacted work practices	6
• Sound understanding of the characteristics and features of how government legislation has impacted work practices	4–5
• Basic understanding of features of government legislation and link to work practices	2–3
• Provides some relevant information	1

Sample answer:

Government legislation, such as the Equal Employment Opportunity Act, has had significant impacts on work practices. For example, when advertising, interviewing, and appointing someone to a position in an organisation care and diligence is required to ensure everybody has an opportunity to apply, get interviewed and appointed, regardless of gender, disability, race, beliefs etc. This may mean equal access now requires ramps, elevators, disabled toilets in all workplaces.

Question 16 (b)

Criteria	Marks
• Provides a judgement based on detailed criteria of the effect of new and emerging technologies on work practices	9
• Provides a judgement based on criteria of the effect of new and emerging techniques on work practices	7–8
• Provides an understanding of the value and effect of new and emerging technologies on work practices	5–6
• Main features of the value or effect of new and emerging technologies on work practices	3–4
• Provides some relevant information	1–2

Answers could include:

The internet has now allowed people to do some of their work from home as they can access the company's software and data from home.

This is very positive for three main reasons:

1. Travel time is reduced. This means the worker can spend more time with his/her family which has positive effects for the happiness of the worker.
2. Fewer people travelling on roads to and from work means less traffic. Less traffic means faster travelling and less frustration before getting to work.
3. More work can be done as working alone at home means no distractions from other workers.

Industrial Technology
Multimedia Technologies
2014 HSC Examination Mapping Grid

Section I

Question	Marks	Content	Syllabus outcomes
1	1	Materials	H4.3
2	1	Processes tools machinery	H1.2, H4.3
3	1	Processes tools machinery	H1.2, H4.3
4	1	Materials	H4.3
5	1	Materials	H4.3
6	1	Materials	H4.3
7	1	Intellectual Property	H4.3
8	1	Elements	H3.2
9	1	Materials	H4.3
10	1	Personnel	H3.2

Section II

Question	Marks	Content	Syllabus outcomes
11	1	WHS	H2.1
12	3	Multimedia Elements Animation	H1.2, H1.3
13	3	Multimedia Elements Audio	H1.2, H4.3
14	3	World Wide Web Video	H1.2, H4.3
15	5	Intellectual Property & Ethics	H4.3

Section III

Question	Marks	Content	Syllabus outcomes
16 (a)	6	Personnel issues	H1.1, H2.1
16 (b)	9	Technological considerations	H1.1, H2.1, H7.2