2004 HSC Notes from the Marking Centre Industrial Technology

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Published by Board of Studies NSW
GPO Box 5300
Sydney 2001
Australia

Tel: (02) 9367 8111
Fax: (02) 9367 8484
Internet: www.boardofstudies.nsw.edu.au

ISBN 1 7414 7178 8

2004465

Contents

2004 HSC NOTES FROM THE MARKING CENTRE INDUSTRIAL TECHNOLOGY

Introduction

This document has been produced for the teachers and candidates of the Stage 6 course in Industrial Technology. It provides comments with regard to responses to the 2004 Higher School Certificate Examination, indicating the quality of candidate responses and highlighting the relative strengths and weaknesses of the candidature in each section and each question.

It is essential for this document to be read in conjunction with the relevant syllabus, the 2004 Higher School Certificate Examination, the Marking Guidelines and other support documents which have been developed by the Board of Studies to assist in the teaching and learning of Industrial Technology.

General Comments

In 2004, approximately 3600 candidates attempted the Industrial Technology examination. This candidature represented a decrease of approximately 75 candidates compared to the 2003 candidature. The total candidature for the 2004 examination were divided amongst the syllabus focus areas as follows:

Focus area	Candidature
Automotive Industries	144
Building and Construction Industries	7
Electronics Industries	144
Graphics Industries	184
Metals and Engineering Industries	128
Multimedia Industries	300
Plastics Industries	0
Timber and Furniture Products Industries	2721

Teachers and candidates should be aware that examiners may ask questions that address the syllabus outcomes in a manner that requires candidates to respond by integrating knowledge, understanding and skills developed through studying the course. Knowledge, understanding and skills developed through the study of discrete sections should accumulate to a more comprehensive understanding than may be described in each section separately.

In the written examination many candidates were challenged due to their lack of knowledge of syllabus requirements. It appears that many candidates may still be placing too little regard on the written examination. Candidates are developing a greater understanding of the glossary of key words and this is reflected in the quality of their responses.

Section I

General Comments

Questions 1 and 3 were generally well answered. Many responses were well structured and showed a greater understanding of the glossary of terms. Responses demonstrated a clear understanding of the structure and changes within the focus industries.

Specific Comments

Question 1

(a) This part was well answered with most candidates identifying a new technology.

(b) Most candidates could outline appropriate implications of the introduction of new technologies. However, many responses did not link these to the existing technologies.

(c) Most candidates were able to describe appropriate evaluation techniques. Many did not link this evaluation to the future introduction of new technologies.

(d) Better responses provided a clear relationship between the introduction of the new technologies and productivity.

(e) Most candidates were able to propose ways to measure the efficiency of new technologies. Better responses provided justification for the proposed methods of measuring efficiency.

Question 2

(a) In general, a well-answered part. Better responses included a reference to more than one appropriate source of finance. Some candidates did not answer the question in terms of industry-related finance.

(b) Many candidates appeared to understand the basic role of the production manager, but did not appreciate or stress the changes to that role in the context of the question.

(c) Some responses referred to aspects of new technologies and also to the concept of the marketability of the product, but did not successfully link the two. Better responses clearly indicated how IND-TECH could promote the improved products resulting from the use of the new technologies.

(d) Most candidates demonstrated an awareness of the basic rights and actions available. Better responses linked rights and actions.

(e) Generally candidates had an understanding of aspects of the EEO policy but did not illustrate the relationship between EEO principles and employer responsibilities. Many candidates listed only employer responsibilities without relating them to EEO guidelines. Some candidates did not appear to recognise this as an EEO-related question.

Question 3

(a) Many candidates were able to indicate how employees should respond to the sign. However a number of candidates were unable to identify the sign as a 'warning' or 'caution' sign.

(b) Most candidates were able to identify that a proportion of expenditure for training and development would be necessary to train, or retrain, staff to ensure that they were proficient in operating the new equipment correctly. Many candidates identified the fact that new techniques would have implications for OHS, and that part of the budget for training and development would be used for training staff in health and safety issues.

(c) Some candidates were better able to explain reasons for changes in capital expenditure and output during the upgrade than after the upgrade. Others indicated reasons for the lag in output changes during and after the upgrade.

(d) Most candidates were able to produce a sequence plan indicating logical stages relevant to introducing new technologies. Some candidates focused on elements within one stage of a sequence plan. Better responses indicated stages such as research, new equipment, financing, infrastructure, time plans, training, installation, trialling/testing and implementation.

(e) Most candidates could outline one or more issues and propose one or more methods of effective communication. Some candidates only provided a list of issues and some communication methods, without any justification for the methods. Some candidates interpreted the question incorrectly and identified issues relating to the use of an external agency in the process rather than identifying issues relating to possible changes in the work environment.

Section II

Focus Area – Automotive Industries

General Comments

The responses this year were of a similar standard to those of last year. Responses to Question 4 were varied, with parts (c), (d) and (e) generally of a poor standard. Responses to Question 5 were generally good and consistent.

Specific Comments

Question 4

(a) This part was generally well answered. Some candidates limited their answers to 'increased power' and did not appreciate that diesel engines develop more torque at lower revolutions.

(b) Responses to this part were generally good. Some candidates described the operation of the four-stroke cycle rather than listing the stages.

(c) Most candidates limited their response to the increased induction of the fuel/air mixture or more revolutions and did not give any other advantage.

(d) Some candidates demonstrated a detailed knowledge of the two fuel systems but did not recognise the difference between direct and indirect injection, or that fuel injection was also a pollution control measure.

(e) Many candidates showed a limited understanding of how an alternator works, often confusing it with a starter motor. Many candidates limited their answer to charging the battery and providing power to the electrical system.

Question 5

(a) Most candidates were able to give a reasonable response, but many were limited to 'reduce pollution' or 'to reduce global warming'.

(b) Many responses were limited to checking ownership, tracking vehicles, enforcing fines. Responses often did not relate to ensuring ongoing safety standards.

(c) Most candidates were able to identify reduced fuel costs and lower emissions but many did not relate this to use in public transport.

(d) Most responses were limited to reduced wind resistance causing increased speed or reduced fuel costs. Responses were not expanded to include any other areas of aerodynamics.

(e) Responses were varied to this part with most candidates using weight savings, cost and ease of manufacture in their answers. Many candidates believe that plastics are a renewable resource, more recyclable, stronger and safer than steel, used in crumple zones and reduce damage in high speed collisions.

Focus Area – Building and Construction

General Comments

Responses to Questions 4 and 5 were generally weak. Many candidates were able to relate their practical experiences to parts of the questions. There was a general weakness demonstrated in the use of building materials, the environment and quantity surveying.

Specific Comments

Question 4

(a) This part was generally well answered. The majority of candidates were able to identify and justify a suitable timber.

(b) This part was generally well answered although some candidates did not recognise that the drawing was a section through the deck. Some candidates did not label the drawing. Many candidates had difficulty in recognising where the 'ground level' was on the drawing.

(c) Few candidates attempted this part that involved quantity surveying.

(d) This part was reasonably well answered. Some candidates described the process detail, using the correct technical terms and identifying all equipment with fully justified reasons for their choice.

(e) Candidates did not fully discuss the necessary aspects of treated pine and its use in the building industry. Many candidates completely ignored the environmental aspects of using CCA treated pine.

Question 5

(a) This part was generally well answered. Some candidates, however, did not draw a diagram showing how the rafters were joined to the wall plate.

(b) Many candidates did not show a 'birds mouth' and only a few indicated a plumb cut.

(c) Most candidates were able to draw a reasonable diagram but many could not correctly name the hardware item drawn.

(d) Most candidates demonstrated a limited knowledge of how to attach the polycarbonate sheets. Many candidates did not recognise the need for roof battens, pre drilling the sheets to allow for expansion and checking for square.

(e) This part was generally well answered. Most candidates were able to respond in relation to the council and the builder but few included the impact on the client.

Focus Area – Electronics Industries

General Comments

Some parts of Questions 4 and 5 were not well answered by the majority of candidates. This was particularly evident in topics such as CRO calculations, VDUs, transistor types and circuit design.

Specific Comments

Question 4

(a) Candidates demonstrated a general understanding of the use of heat shrink, although some confused the concepts of 'heat shrink' with 'heat sink'.

(b) Responses indicated that most candidates have poor understanding of the features of microphones.

(c) This part was generally well answered by the majority of candidates. Some demonstrated a limited understanding of how the values of resistors are calculated.

(d) This part was generally well answered with most candidates having a good understanding of series and parallel resistance.

(e) This part was not well answered. Some candidates provided more realistic answers to the content of manufacturing processes. Other candidates merely repeated school classroom practices, while others focused on extraneous issues such as marketing.

Question 5

(a) This part was generally well answered by the majority of candidates.

(b) Only a few candidates were able to use the scale, interpret the display and calculate the period.

(c) Responses indicated a general lack of knowledge with regard to VDUs.

(d) This part was generally well answered but many candidates confused FETs with bipolar transistors.

(e) Generally, candidates were not able to demonstrate an understanding of RC timing delays, and the relationship between the transistor, relay and globe.

Focus Area – Graphics Industries

General Comments

Questions 4 and 5 were generally well answered with candidates showing a good understanding of most sections of the syllabus. Some candidates, however, did not demonstrate an understanding of the meaning of key terms such as explain, justify, propose, outline and describe.

Specific Comments

Question 4

(a) Many candidates could not identify an appropriate type of drawing for each item.

(b) Candidates could name the type of drawing but could not give valid reasons for its use.

(c) (i) This part was generally poorly answered.
(ii) Most candidates showed some understanding of 3rd angle projection but could not fully articulate it in their responses.

(d) Many responses identified features in the drawings but often did not describe the technique behind the feature. Many could identify techniques in one of the drawings but not in both.

(e) Candidates confused ‘Aged People’ with ‘Disabled People’ and consequently set out obvious solutions, eg ramps not stairs. The procedural steps were addressed with some clarity whilst the consultative steps were often brief or absent.

Question 5

(a) Most responses indicated one reason for the use of a scaled drawing.

(b) This part was generally well answered.

(c) The majority of candidates could sketch some of the shape. Some sketched the full solution well.

(d) This part was generally well answered.

(e) Most candidates could explain the purpose of scale models, but few could articulate the responsibilities of the architect.

Focus Area – Metals and Engineering Industries

General Comments

Responses indicated a poor understanding of industrial applications in machining, thread cutting, and extrusion of metals. Most responses only related to school workshop experiences. In Question 5 many candidates attempted all parts of the question by simple reference to a CNC lathe instead of giving specific details as to how a CNC lathe could achieve the specific or desired outcome.

Specific Comments

Question 4

(a) (i) Generally well answered. Candidates indicated a thorough understanding of tube formation by the rolling and welding process.

(ii) Responses indicated that many candidates had a limited understanding of metal extrusion as an industrial process. These candidates restricted responses to school workshop experiences.

(b) The majority of candidates did not recognise that the diagram represented a hollow section (tube). Many responses related to using a lathe rather than an industrial rolling/swaging process.

(c) This part was generally well answered with most candidates able to provide a well-illustrated and labelled sketch of an appropriate joining method.

(d) Most candidates did not apply the term ‘discuss’ and simply provided a generic response in terms of characteristics of the finishing process. Many candidates emphasised hygiene and safety issues rather than the more appropriate issues of design and manufacturing constraints.

Question 5

(a) Responses to this part were good with most of the candidates recognising the functions and capacities of metal turning lathes.

(b) Only a small number of candidates recognised parallel turning and facing as the processes required. A number of candidates recognised the possible use of CNC lathes to manufacture the component.

(c) Many candidates were able to describe the process of off-setting the compound slide to produce a taper, but very few demonstrated understanding of the process of off-setting the tailstock in order to produce a taper. Some candidates recognised that the taper could be produced using a correctly programmed CNC lathe.

(d) Responses demonstrated a poor understanding of both surface finishes and tolerances, and their importance in manufacturing.

(e) Many responses demonstrated little knowledge or understanding of thread cutting methods other than with a stock and die. The description of how a thread would be produced using a lathe in industry was too general and lacking in detail.

Focus Area – Multimedia Industries

General Comments

Most candidates were able to respond to all sections of the questions, however a number of the candidates demonstrated that they were unfamiliar with the glossary of terms used to develop the examination questions, particularly the term ‘analyse’.

Specific Comments

Question 4

(a) Many candidates did not understand the term ‘authoring’ with respect to multimedia.

(b) This part was generally well answered.

(c) Most candidates could list the sequences but could not adequately describe the formatting processes.

(d) This part was generally well answered. Many candidates could ‘outline’ the reasons for using ‘clip art’ but could not discuss factors in the selection and use of clipart.

(e) This part was generally well answered. Only a few candidates ‘evaluated’ the storyboard layouts, while many could identify and discuss the layouts.

Question 5

(a) This part was generally well answered. Candidates were able to identify and describe a hyperlink and its features.

(b) Responses to this part were generally very good.

(c) This part was generally well answered with candidates having a good knowledge of pdf files and the advantages of using them. Some candidates did not outline advantages, simply listing the characteristics of pdf files.

(d) The majority of candidates demonstrated an understanding of the implications of using high-resolution cameras for presentations on the web. Many responses did not elaborate on a range of issues.

(e) The majority of candidates demonstrated an understanding of the essential specifications of a multimedia computer but only listed or described the components without analysis.

Focus Area – Timber Products and Furniture Industries

General Comments

Candidates performed well in parts of Question 4. The responses indicated a sound knowledge of timber types and characteristics, however they lacked specific information about process and hardware fittings associated with door construction. Many candidates did not demonstrate an understanding of the term 'explain'. In Question 5 most candidates were able to select and justify appropriate timber joints and glues. Many candidates were able to communicate graphically but had difficulty in producing quality sketches. Candidates generally did not relate responses to the stimulus material provided in the question.

Specific Comments

Question 4

(a) (i) This part was generally well answered with candidates demonstrating a sound knowledge of Australian hardwoods.

(ii) Candidates demonstrated a sound knowledge of timber characteristics.

(b) Most candidates named a machine rather than a process.

(c) Responses indicated a good understanding of the issues associated with the different manufacturing techniques used in panel construction.

(d) Responses to this part indicated a narrow range of hinges used in door construction.

(e) Many responses were not well organised, resulting in many points being repetitive. Candidates had difficulty in explaining the practices that IND-TECH would use to produce a quality product.

Question 5

(a) The majority of candidates were able to identify two suitable joints, but some had difficulty stating appropriate advantages.

(b) The majority of candidates were able to select an appropriate adhesive. Some candidates used commercial brand names rather than identifying the type of adhesive.

(c) Annotation was used successfully by many candidates to enhance their drawings. Many candidates did not explode their drawings or indicate clearly how the panel would be fitted.

(d) Many candidates were able to identify features of the timber but could not adequately justify their choices.

(e) Many candidates found this question challenging. Those candidates who chose to divide the question into sections successfully discussed and outlined the issues identified. Poorer responses tended to describe processes only, with inadequate or no discussion. OHS responsibilities were generally well understood by candidates.

Major Project

Major Project

This year there was some improvement in the overall quality of the Major Projects presented by Industrial Technology candidates. Folios were of a pleasing standard and showed improved ICT skills and techniques.

Design and Management

The Design, Management and Communication folios were varied in their standards and in their compilation.

Many candidates still need to be more specific and detailed in the wording of their Statement of Intent. Many candidates relied on a simple statement of what they want, intend, or need to make. Better responses related the 'what' to 'why' and 'how' and also gave details of 'where' information would be sought in order to fulfil their requirements and/or where the project would be put to use.

Candidates need to be aware that research and information gathering should be relevant to the project as detailed in the Statement of Intent. Simply adding brochures, catalogues, company information and downloads from web-pages does not constitute research unless it relates to the project being constructed and the candidate has interacted with the information in some way. Better responses showed clearly what had been gained from the information and how it would be used. They also included a brief, to the point evaluation of the research for each item, process or material, as part of ongoing evaluation.

Timelines and Finance plans were usually well presented and in an increasing variety of ways. Candidates need to be sure to add detail in these plans and not restrict them to a few general headings. *Research*, for example, needs to include details of type, how and/or where. It is also important to note that these time and finance plans must include both a proposed plan and an actual plan and not be written after the event.

Most candidates were able to comment in some detail regarding the Personal Protective Equipment aspects of OHS. However, candidates must outline the risks attached to the processes and materials as well as the safe handling of materials and not just PPE for machine use and the safe handling of tools etc.

Communication

In most instances candidates successfully used a variety of communication techniques to complete the DMC folio. Better folios used sophisticated CAD drawings, digital images and a variety of output devices to produce a quality of folio approaching professional desktop publishing. Very few candidates completed the folio with no ICT skills being apparent, even the weakest folios contained evidence of word processing and spreadsheets.

Sketching of ideas and their development was not particularly strong, with some exceptions. Most candidates included some rough, and in some cases, almost unidentifiable sketches without any annotation. Candidates must remember that this section of the folio communicates to the examiner how they arrived at their final design, or how an original design was modified. All of their sketches should be included and they must be annotated.

Production

The quality of the major projects continues to improve with far fewer candidates either non-attempting or presenting incomplete projects. Most candidates were able to satisfactorily manage their time and resources to produce a finished project, albeit of varying quality.

Some candidates still produce a standard of work more suited to the lower and middle years of secondary education. These projects show little development in skills beyond those attainable in Stages 4 and 5. Projects of this calibre, even when competently completed, rarely score the better marks.

Candidates should be reminded to choose a project to 'showcase' their abilities and not just make something. Projects should also be of sufficient rigour to allow the candidate to fully satisfy the requirements of the course.

Candidates should present as much supporting material as possible with their projects. Jigs, models, prototypes, preliminary sketches, working rods and all other material used during construction identifies a broader range of skills and techniques that may have otherwise been overlooked.

Some candidates used some degree of outside help and/or resources, as is allowed in the subject rules. Care must be taken to fully acknowledge these outside resources.

In the main, Multimedia Focus Area candidates did not fully show how their projects evolved. They need to present the development of the project and not just the final product. In most cases, candidates showed little evidence of storyboarding, sketching or planning. Some candidates used screen dumps, dated and initialled by their teachers at regular intervals to give a clear indication of project development. These candidates also used a range of processes that included video, digital imaging and web design.

Industrial Technology

2004 HSC Examination Mapping Grid

Question	Marks	Content	Syllabus outcomes
Section I			
1 (a)	1	Technical factors	H1.2
1 (b)	3	Technical factors	H1.1, H1.2, H7.1
1 (c)	4	Structural factors	H1.1, H1.2, H3.2, H6.1
1 (d)	4	Structural factors	H1.1, H1.2, H7.1
1 (e)	8	Structural factors	H1.1, H1.2, H3.2, H6.1, H7.1
2 (a)	2	Structural factors	H1.1
2 (b)	2	Personnel issues	H1.2
2 (c)	4	Structural/technical factors	H1.2, H7.1
2 (d)	4	Personnel factors	H1.1, H1.2, H7.1
2 (e)	4	Personnel factors	H1.1, H1.2
3 (a)	2	Graphics	H3.1
3 (b)	2	Graphics	H3.1
3 (c)	4	Graphics, Literacy	H3.1, H5.1, H5.2
3 (d)	4	Graphics, Literacy	H3.1, H5.1, H5.2
3 (e)	8	Literacy	H5.1, H5.2
Automotive Industries Section II			
4 (a)	2	Power	H1.2, H4.3, H7.1
4 (b)	2	Engine	H1.2, H4.3, H7.1
4 (c)	4	Engine	H1.2, H4.3, H7.1
4 (d)	4	Engine	H1.2, H4.3, H7.1
4 (e)	8	Electrical	H1.2, H4.3, H7.1
5 (a)	2	Government and statutory regulations	H1.2, H4.3, H6.1, H7.1
5 (b)	2	Government and statutory regulations	H1.2, H4.3, H6.1, H7.1
5 (c)	4	Power	H1.2, H4.3, H6.1, H7.1
5 (d)	4	Design	H1.2, H4.3, H6.1, H7.1
5 (e)	8	Design	H1.2, H4.3, H6.1, H7.1

Question	Marks	Content	Syllabus outcomes
Building and Construction Industries Section II			
4 (a)	2	Processes, tools, machinery equipment	H4.3
4 (b)	3	Building principles and materials	H1.2, H4.3
4 (c)	3	Building principles and materials	H4.3
4 (d)	4	Building principles and processes, tools and machinery equipment	H4.3
4 (e)	8	Building principles and materials	H7.1
5 (a)	2	Building types, Building regulations	H1.2, H4.3
5 (b)	2	Building regulations	H1.2, H4.3
5 (c)	4	Building regulations, materials and resources	H4.3, H6.2
5 (d)	4	Building regulations	H4.3, H6.2
5 (e)	8	Building regulations, utilities and services	H4.3, H6.2
Electronics Industries Section II			
4 (a)	2	Electrical principles	H4.3, H6.1
4 (b)	2	Electrical principles	H4.3, H6.1
4 (c)	4	Electrical principles	H4.3, H6.1
4 (d)	4	Electrical principles, graphics	H4.3
4 (e)	8	Electrical principles, processes	H1.2, H4.3, H6.1, H7.1
5 (a)	2	Processes (OHS)	H1.2, H4.3
5 (b)	2	Instruments and test equipment	H4.3
5 (c)	4	Instruments and test equipment	H4.3
5 (d)	4	Electrical principles, processes	H4.3
5 (e)	8	Processes, graphics	H1.2, H4.3

Question	Marks	Content	Syllabus outcomes
Graphics Industries Section II			
4 (a)	2	Processes	H4.3
4 (b)	2	Processes	H4.3
4 (c) (i)	2	Processes	H4.3
4 (c) (ii)	2	Principles/Standards	H4.3
4 (d)	4	Processes/Equipment	H1.2, H4.3
4 (e)	8	Processes	H4.3, H7.1
5 (a)	2	Processes	H4.3
5 (b)	2	Processes/Standards	H4.3
5 (c)	4	Processes	H4.3
5 (d)	4	Processes/Equipment	H4.3, H7.1
5 (e)	8	Processes	H4.3, H6.1, H7.1
Metals and Engineering Industries Section II			
4 (a) (i)	2	Processes and materials, tools, machinery	H1.2, H4.3, H6.1
4 (a) (ii)	2	Processes and materials, tools, machinery	H1.2, H4.3, H6.1
4 (b)	4	Processes, tools, machinery	H1.2, H4.3, H6.1
4 (c)	4	Processes, tools, machinery	H1.2, H3.1, H3.3, H5.1, H6.1
4 (d)	8	Processes, tools, machinery	H1.2, H4.3, H6.1
5 (a)	2	Processes, tools, machinery	H1.2, H4.3, H6.1
5 (b)	2	Processes, tools, machinery	H1.2, H4.3, H6.1
5 (c)	4	Processes, tools, machinery	H1.2, H4.3, H6.1
5 (d)	4	Processes, tools, machinery	H1.2, H4.3, H6.1, H6.2, H7.1
5 (e)	8	Processes, tools, machinery	H1.2, H4.3, H6.1, H6.2

Question	Marks	Content	Syllabus outcomes
Multimedia Industries Section II			
4 (a)	2	Process tools and machines	H1.2, H4.3, H6.1
4 (b)	2	Process tools and machines	H1.2, H4.3, H6.1
4 (c)	4	Process tools and machines	H1.2, H4.3, H6.1
4 (d)	4	Material and resources	H1.2, H4.3, H6.1
4 (e)	8	Process tools and machines/resources	H1.2, H4.3, H6.1
5 (a)	2	Process tools and machines	H1.2, H4.3, H6.1, H7.1
5 (b)	2	Process tools and machines	H1.2, H4.3, H6.1, H7.1
5 (c)	4	Material and resources	H1.2, H4.3, H6.1, H7.1
5 (d)	4	Process tools and machines	H1.2, H4.3, H6.1, H7.1
5 (e)	8	Process tools and machines	H1.2, H4.3, H6.1, H7.1
Timber Products and Furniture Industries Section II			
4 (a) (i)	1	Materials	H1.2, H4.3, H6.1
4 (a) (ii)	2	Materials	H1.2, H4.3, H6.1
4 (b)	1	Tools, machinery processes	H4.3
4 (c)	4	Tools, machinery processes	H1.2, H4.3, H6.1
4 (d)	4	Tools, machinery processes	H1.2, H3.2, H3.3, H4.3, H6.1
4 (e)	8	Materials, tools, machinery processes	H1.2, H4.3, H6.1, H7.1
5 (a)	2	Tools, machinery processes	H1.2, H4.1
5 (b)	2	Materials	H1.2, H4.1
5 (c)	4	Tools, machinery processes	H1.1, H1.2, H3.1, H3.2
5 (d)	4	Materials	H1.1, H1.2, H4.3, H6.1
5 (e)	8	Materials	H1.1, H1.2, H6.1, H7.1

BOARD OF STUDIES
NEW SOUTH WALES

2004 HSC Industrial Technology
Marking Guidelines

Section I

Question 1 (a)

Outcomes assessed: H1.2

MARKING GUIDELINES

Criteria	Marks
• Recognises and names an appropriate new technology	1

Question 1 (b)

Outcomes assessed: H1.1, H1.2, H7.1

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of more than one implication of new technologies on existing technologies	3
• Indicates the main features of an implication of new technologies relating it to the existing technologies	2
• Names an implication	1

Question 1 (c)

Outcomes assessed: H1.1, H1.2, H3.2, H6.1

MARKING GUIDELINES

Criteria	Marks
• Provides characteristics and features of ways of evaluating the viability of introducing new technologies	4
• Provides characteristics and features of one way of evaluating the viability of introducing new technologies	3
• Provides characteristics and features of ways of evaluating viability with no link to the introduction of new technologies	2
• Names a way of evaluating the introduction of new technologies	1

Question 1 (d)

Outcomes assessed: H1.1, H1.2, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides a clear relationship between the introduction of new technologies and productivity	4
• Provides some relationship between the introduction of new technologies and productivity	3
• Provides a characteristic and/or features of an appropriate technology that would stimulate productivity	2
• Identifies an appropriate characteristic or feature that would stimulate industry	1

Question 1 (e)

Outcomes assessed: H1.1, H1.2, H3.2, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Puts forward a range of appropriate ways to measure efficiency and provides clear support for each of them	8
• Puts forward a range of appropriate ways to measure efficiency and provides some support for them	6–7
• Puts forward a range of appropriate ways to measure efficiency and provides limited support for one way	4–5
• Puts forward an appropriate way to measure efficiency and provides minimal support	2–3
• Shows some understanding of efficiency OR • Names a way of measuring efficiency	1

Question 2 (a)

Outcomes assessed: H1.1

MARKING GUIDELINES

Criteria	Marks
• Identifies more than one source of finance	2
• Identifies one source of finance	1

Question 2 (b)

Outcomes assessed: H1.2

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of more than one possible change to the responsibilities of the production manager	2
• Indicates the main features of one possible change to the responsibilities of the production manager OR • Names more than one possible change to the responsibilities	1

Question 2 (c)

Outcomes assessed: H1.2, H7.1

MARKING GUIDELINES

Criteria	Marks
• Identifies issues and provides points to indicate how new technologies could improve the marketability of the product	4
• Identifies an issue and provides points to indicate how new technologies could improve the marketability of the product OR • Outlines more than one issue linking new technologies	3
• Outlines an issue linking new technologies and the marketability of the product	2
• Identifies an aspect that will improve the marketability of the IND-TECH product	1

Question 2 (d)

Outcomes assessed: H1.1, H1.2, H7.1

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of relevant industrial rights and identifies appropriate action to be taken by employees in context	4
• Indicates the main features of an industrial right and identifies a range of actions to be taken by employees in context	3
• Identifies an industrial right and an industrial action to be taken by employees	2
• Identifies one or more industrial right/s of the employees OR • Identifies one or more action/s that can be taken by employees	1

Question 2 (e)

Outcomes assessed: H1.1, H1.2

MARKING GUIDELINES

Criteria	Marks
• Draws out and relates the implications of this proposal • Identifies issues and provides points relating to IND-TECH's responsibilities towards its employees	8
• Draws out and relates an implication of this proposal • Identifies issues and provides limited points relating to IND-TECH's responsibilities towards its employees	6–7
• Outlines the implications of this proposal • Identifies IND-TECH's responsibilities towards its employees	4–5
• Identifies implications of this proposal • Identifies an issue relating to IND-TECH's responsibilities towards its employees	2–3
• Identifies one or more implication/s OR • Identifies one or more issue/s relating to IND-TECH's responsibilities towards its employees	1

Question 3 (a)

Outcomes assessed: H3.1

MARKING GUIDELINES

Criteria	Marks
• Names graphic • Gives an appropriate response by IND-TECH's employees	2
• Names graphic OR • Gives an appropriate response by employees	1

Question 3 (b)

Outcomes assessed: H3.1

MARKING GUIDELINES

Criteria	Marks
• Names more than one reason	2
• Names one reason	1

Question 3 (c)

Outcomes assessed: H3.1, H5.1, H5.2

MARKING GUIDELINES

Criteria	Marks
• Makes clear the relationship between the changes in the graphs and the possible causes during and after the upgrade phases	4
• Makes some relationship between the changes in the graphs and the possible causes during and/or after the upgrade phases	3
• Explains causes for changes in capital expenditure or output	2
• Names a factor that could contribute to changes in capital expenditure or changes in output	1

Question 3 (d)

Outcomes assessed: H3.1, H5.1, H5.2

MARKING GUIDELINES

Criteria	Marks
• Provides a comprehensive list of steps, sequentially organised, indicating the phases related to the introduction of new technologies	4
• Provides some steps, sequentially organised, indicating the phases related to the introduction of new technologies	3
• Provides some steps, with no sequential order. The phases are related to the introduction of new technologies	2
• Identifies a phase related to the introduction of new technologies	1

Question 3 (e)

Outcomes assessed: H5.1, H5.2

MARKING GUIDELINES

Criteria	Marks
• Provides the main features of a range of issues covering the work environment • Puts forward and supports appropriate methods for communication	8
• Provides features of some issues covering the work environment • Puts forward and supports appropriate methods of communication	6–7
• Names relevant issues and puts forward or supports methods of communication	4–5
• Names a relevant issue with appropriate method of communication OR • Names more than one issue	2–3
• Names a relevant issue	1

BOARD OF STUDIES
NEW SOUTH WALES

2004 HSC Industrial Technology
Automotive Industries
Marking Guidelines

Section II

Question 4 (a)

Outcomes assessed: H1.2, H4.3, H7.1

MARKING GUIDELINES

Criteria	Marks
• Makes clear the relationship between the use of diesel power and heavy transport vehicles	2
• Indicates a limited understanding of the use of diesel power for transportation	1

Question 4 (b)

Outcomes assessed: H1.2, H4.3, H7.1

MARKING GUIDELINES

Criteria	Marks
• Lists all four stages of operation of a four stroke engine	2
• Lists two or three stages of operation of a four stroke engine	1

Question 4 (c)

Outcomes assessed: H1.2, H4.3, H7.1

MARKING GUIDELINES

Criteria	Marks
• Demonstrates clear understanding of this valve arrangement, providing appropriate reasons and advantages	4
• Demonstrates some understanding, providing a reason and some advantages	3
• Demonstrates basic understanding, providing a reason and an advantage	2
• Demonstrates limited understanding, providing either a reason or an advantage	1

Question 4 (d)

Outcomes assessed: H1.2, H4.3, H7.1

MARKING GUIDELINES

Criteria	Marks
• Demonstrates a good understanding of fuel systems in both engines, clearly showing the similarities and/or differences	4
• Demonstrates a good understanding of the fuel systems, with little comparison made	3
• Demonstrates a basic understanding of the two fuel systems with no comparison made	2
• Demonstrates limited understanding of either of the two fuel systems	1

Question 4 (e)

Outcomes assessed: H1.2, H4.3, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides characteristics and features of both the purpose and the operation of an alternator, with reference to the main components	8
• Provides some characteristics and features of the purpose and operation	6–7
• Provides some characteristics and features of the purpose and operation but does not adequately address some of the main components	4–5
• Identifies the purpose of the alternator for charging the battery and mentions electromagnetism in the operation	2–3
• Identifies the purpose of an alternator in terms of charging the battery	1

Question 5 (a)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Clearly provides a reason why regulations govern emissions	2
• Demonstrates a basic understanding of regulations governing emissions	1

Question 5 (b)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Clearly provides a reason why vehicles need to be registered	2
• Demonstrates a basic understanding as to why vehicles need to be registered	1

Question 5 (c)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Identifies issues and provides points for and/or against the use of CNG	4
• Identifies one issue and provides points for and/or against the use of CNG OR • Identifies two issues and one point	3
• Lists one reason why CNG is used and shows some understanding of its advantages OR • Lists two issues with no explanation	2
• Lists one reason why CNG is used	1

Question 5 (d)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides reasons why designers used aerodynamic testing, clearly indicating the benefits	4
• Provides a reason why designers use aerodynamics testing, indicating the benefits	3
• Lists reasons why a designer might use aerodynamic testing without indicating the benefits	2
• Lists a reason why a designer might use aerodynamics testing	1

Question 5 (e)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides reasons for the increased use of plastics, clearly relating the benefits and advantages to the design. Supports explanation with appropriate examples	8
• Provides reasons for the increased use of plastics, with attempts to relate the benefits and advantages to the design. Provides an appropriate example	6–7
• Lists reasons for the use of plastics, with limited relationship made to design. Provides an appropriate example OR • Lists one reason with a good explanation and an example	4–5
• Lists reasons why plastics are used. Gives an advantage with no relevant example	2–3
• Lists a reason why plastics are used. No advantage or example provided	1

BOARD OF STUDIES
NEW SOUTH WALES

2004 HSC Industrial Technology
Building and Construction Industries
Marking Guidelines

Section II

Question 4 (a)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Identifies a suitable alternative decking timber and clearly supports the selection	2
• Identifies a suitable alternative decking timber	1

Question 4 (b)

Outcomes assessed: H1.2, H4.3

MARKING GUIDELINES

Criteria	Marks
• Correct sketch of the cross-section of the deck with clear labelling of timber details and decking	3
• Correct sketch of the cross-section of the deck with incomplete labelling OR • Incorrect sketch of the cross-section with correct labelling	2
• Incorrect sketch of the cross-section with some labelling OR • Correct sketch with no labelling	1

Question 4 (c)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Complete cutting list and correct in all aspects	3
• Complete cutting list with some incorrect quantities/sizes	2
• Incomplete cutting list with some correct quantities/sizes	1

Question 4 (d)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides characteristics and features of the process used to attach the decking timbers • Identifies the relevant tools and hardware required and provides support for their selection	4
• Provides characteristics and features of the process used to attach the decking timbers • Identifies the tools and hardware required and provides incomplete support	3
• Identifies the process used to attach the decking timbers • Identifies the tools and hardware used	2
• Names the process OR • Identifies the tools or hardware used	1

Question 4 (e)

Outcomes assessed: H7.1

MARKING GUIDELINES

Criteria	Marks
• Demonstrates thorough understanding of the use of CCA treated pine • Identifies issues related to its use and provides detailed points for and/or against its use with reference to the environment, builder and client	8
• Demonstrates good understanding of the use of CCA treated pine • Identifies issues related to its use and provides some points for and/or against its use with reference to the environment, builder and client	6–7
• Demonstrates a satisfactory understanding of the use of CCA treated pine • Identifies issues related to its use and provides limited points for and/or against its use with reference to the environment, builder and client	4–5
• Demonstrates some understanding of the use of CCA treated pine • Provides the main features of its use with reference to the environment and/or the builder and /or the client	2–3
• Outlines the impact of using CCA treated pine on the environment or builder or client	1

Question 5 (a)

Outcomes assessed: H1.2, H4.3

MARKING GUIDELINES

Criteria	Marks
• Correct sketches of two appropriate methods	2
• Correct sketch of an appropriate method OR • Partially correct sketches of two appropriate methods	1

Question 5 (b)

Outcomes assessed: H1.2, H4.3

MARKING GUIDELINES

Criteria	Marks
• Shows all necessary cuts and clearly provides why they are required	4
• Shows all necessary cuts, with an incomplete explanation	3
• Shows all cuts with no explanation OR • Shows some cuts, with some explanation	2
• Shows some correct cuts with no explanation	1

Question 5 (c)

Outcomes assessed: H4.3, H6.2

MARKING GUIDELINES

Criteria	Marks
• Names and sketches correct item	2
• Names the correct item OR • Sketches the correct item	1

Question 5 (d)

Outcomes assessed: H4.3, H6.2

MARKING GUIDELINES

Criteria	Marks
• Correct sketch to show how the polycarbonate sheets would be attached to the rafters • Provides characteristics and features of the processes used to prepare and attach the sheets	4
• Correct sketch to show how the sheets would be attached to the rafter • Provides some features and characteristics of the process used to prepare and attach the sheets	3
• Incomplete sketch to show how the sheets would be attached • List steps used to prepare and attach the sheets	2
• Incomplete sketch OR • Lists some steps used in the process	1

Question 5 (e)

Outcomes assessed: H4.3, H6.2

MARKING GUIDELINES

Criteria	Marks
• Identifies issues and provides detailed points for and/or against submitting plans to council and the impact these issues have on the builder, client and council	8
• Identifies some issues and provides some points for and/or against submitting plans to council and the impact these issues have on the builder, client and council	6–7
• Identifies some issues related to the submission of plans to council and the impact these issues have on the builder or client or council	4–5
• Outlines why plans are submitted to council and the impact this has on the builder or client or council	2–3
• Outlines why plans are submitted to council OR • Provides an impact on the builder or client or council	1

BOARD OF STUDIES
NEW SOUTH WALES

2004 HSC Industrial Technology
Electronics Industries
Marking Guidelines

Section II

Question 4 (a)

Outcomes assessed: H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Provides the main feature of the use of heat shrink tubing	2
• Names a characteristic of heat-shrink tubing	1

Question 4 (b)

Outcomes assessed: H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Identifies at least two relevant features	2
• Identifies a relevant feature	1

Question 4 (c)

Outcomes assessed: H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Provides details of how values are calculated with correct reference to all colour bands and tolerance	4
• Provides details of how values are calculated with some reference to coloured bands and tolerance	3
• Provides details of how values are calculated with some reference to coloured bands	2
• Provides a basic statement of how values are calculated	1

Question 4 (d)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides a correct calculation with an accurate diagram (including correct units)	4
• Provides a correct calculation with an inaccurate diagram (including correct units)	3
• Provides some relevant calculations	2
• Provides a relevant calculation OR • Provides an accurate diagram without calculations	1

Question 4 (e)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides the characteristics and features of the processes used to manufacture the electronic circuit • Processes must be in sequential order	8
• Provides the characteristics and features of the processes used to manufacture the electronic circuit • Some of the processes are not in sequential order	6–7
• Provides characteristics and features of some of the processes used in the manufacture of the electronic circuit	4–5
• Lists some processes with some understanding of the link between the processes	2–3
• Lists some processes	1

Question 5 (a)

Outcomes assessed: H1.2, H4.3

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of ways to minimise risk	2
• Indicates a relevant feature of a way to minimise risk	1

Question 5 (b)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides a correct calculation with appropriate units	2
• Provides a correct calculation	1

Question 5 (c)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides detailed characteristics and features of various visual displays	4
• Provides some characteristics and features of various visual displays	3
• Provides some information about visual displays	2
• Provides a relevant statement	1

Question 5 (d)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides how a FET operates with an accurately labelled diagram	4
• Provides how a FET operates with an incorrectly labelled diagram	3
• Provides how a FET operates without labelling the diagram	2
• Provides a basic statement on the operation of the FET	1

Question 5 (e)

Outcomes assessed: H1.2, H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides a correct circuit diagram • Provides a correct explanation of how the circuit operates	8
• Provides a circuit diagram with the majority of components in the correct position • Provides an explanation of how the circuit operates	6–7
• Provides an incomplete or incorrectly configured circuit diagram • Provides a limited explanation of the circuit operation	4–5
• Shows some understanding of the function of a range of components	2–3
• Shows an understanding of some of the components	1

BOARD OF STUDIES
NEW SOUTH WALES

2004 HSC Industrial Technology
Graphics Industries
Marking Guidelines

Section II

Question 4 (a)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Indicates the most appropriate type of drawing in each case	2
• Indicates appropriate types of drawing in at least two cases	1

Question 4 (b)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Outlines two or more relevant reasons for the use of an exploded pictorial drawing	2
• Outlines a reason for the use of an exploded pictorial drawing	1

Question 4 (c) (i)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides at least two reasons for the use of orthogonal drawings by engineers	2
• Provides a reason for the use of orthogonal drawings by engineers	1

Question 4 (c) (ii)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides an explanation of third angle projection	2
• Indicates some understanding of third angle projection	1

Question 4 (d)

Outcomes assessed: H1.2, H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides characteristics and features of the techniques used in the two drawings which provide information to the client	4
• Provides some characteristics and features of some techniques which provide information to the client	3
• Describes a technique which provides information to the client	2
• Names features without any description or reason for their use by the architect	1

Question 4 (e)

Outcomes assessed: H4.3, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides a detailed sequence of procedural and consultative steps the architect would work through to assist the Dept of Housing in improving existing housing for aged people, with valid support for each step	8
• Provides some of the procedural and consultative steps the architect would work through to assist the Dept of Housing in improving existing housing for aged people, with brief support for the steps	6–7
• Names a range of steps the architects would undertake with limited support for the steps	4–5
• Names a limited range of steps which the architect would undertake with no support for the steps	2–3
• Names a step the architect would take with little or no support for the step	1

Question 5 (a)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides two or more reasons for the use of scaled drawings	2
• Provides one reason for the use of scaled drawings	1

Question 5 (b)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Provides why drawing standards need to conform to international standards	2
• Provides a brief description of Australian Drawing Standards (AS1100) OR • Describes some drawing standards	1

Question 5 (c)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Full detail of block provided – proportion, pictorial, maximum detail indicated	4
• Rectangular 'block' outline provided – proportion, pictorial, some lines/edges provided ie step shown	3
• Rectangular 'block' outline provided in proportion using pictorial axis	2
• Uses pictorial axes, but no proportion • At least one face provided	1

Question 5 (d)

Outcomes assessed: H4.3, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides the main features of a range of reasons for the increasing use of CAD	4
• Provides the features of a reason for the increasing use of CAD	3
• Provides at least two reasons for the increasing use of CAD	2
• Provides a reason for the increasing use of CAD	1

Question 5 (e)

Outcomes assessed: H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides how and/or why scale models are used • Provides the main features of a range of responsibilities of architects in preparing and presenting scale models	8
• Provides why and/or how scale models are used • Provides some features of the responsibilities of architects in preparing and presenting scale models	6–7
• Provides the uses for scale models • Provides a feature of the responsibilities of architects	4–5
• Indicates a feature of a scale model • Indicates a responsibility of architects	2–3
• Indicates a feature of a scale model OR • Indicates a responsibility of architects	1

BOARD OF STUDIES
NEW SOUTH WALES

2004 HSC Industrial Technology
Metals and Engineering Industries
Marking Guidelines

Section II

Question 4 (a) (i)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of a process required to form the centre support tube from flat sheet	2
• Names a suitable method	1

Question 4 (a) (ii)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of a process used to form the centre support tube from bar stock	2
• Names a suitable process	1

Question 4 (b)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Clearly provides details of the process used to shape the end of the centre support tube	4
• Outlines some details of the process used to form the shape	3
• Lists steps in the process of forming the shape	2
• Names a suitable process	1

Question 4 (c)

Outcomes assessed: H1.2, H3.1, H3.3, H5.1, H6.1

MARKING GUIDELINES

Criteria	Marks
• Provides fully labelled sketches indicating an appropriate method of joining the feet and legs together	4
• Provides a complete sketch with some labelling, indicating an appropriate method	3
• Provides an incomplete sketch with some labelling, indicating a joining method	2
• Provides a poor sketch with no labelling indicating a joining method	1

Question 4 (d)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Identifies issues and provides points for and/or against the finishes chosen	8
• Identifies some issues and provides some points for and/or against using the finishes	6–7
• Provides characteristics and features of the finishes	4–5
• Provides characteristics and features of one of the finishes	2–3
• Names a suitable finishing process for the sleeve and feet	1

Question 5 (a)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Names a suitable machine, giving a reason	2
• Names a suitable machine	1

Question 5 (b)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of the processes used to machine the shoulder	2
• Names a process	1

Question 5 (c)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Identifies and provides characteristics and features of two suitable methods of setting up a machine to form a taper	4
• Identifies and provides some characteristics of two suitable methods of setting up the machine	3
• Names two processes used to machine taper OR • Names one process with a description on the setting up of the machine	2
• Names a process	1

Question 5 (d)

Outcomes assessed: H1.2, H4.3, H6.1, H6.2, H7.1

MARKING GUIDELINES

Criteria	Marks
• Names a method of surface finishing and provides a relationship between quality control, manufacturing processes and specifications	4
• Names a surface finishing process and provides some relationship between quality control OR manufacturing process OR specifications	3
• Names a surface finish and a manufacturing process	2
• Names a surface finish	1

Question 5 (e)

Outcomes assessed: H1.2, H4.3, H6.1, H6.2

MARKING GUIDELINES

Criteria	Marks
• Provides characteristics and features of a machining processes that would be suitable to cut a thread. Shows the similarities and differences between cutting a thread on a machine and using hand tools	8
• Provides some characteristics and features of a machining process that would be suitable to cut a thread. Shows some similarities and differences between cutting a thread on a machine and using hand tools	6–7
• Provides limited characteristics and features of a machining process that would be suitable to cut a thread. Shows limited similarities and/or differences between cutting a thread on a machine and using hand tools	4–5
• Identifies a machine or hand process for cutting the thread with a brief description of how this is carried out	2–3
• Identifies a machine or hand process for cutting the thread	1

BOARD OF STUDIES
NEW SOUTH WALES

2004 HSC Industrial Technology
Multimedia Industries
Marking Guidelines

Section II

Question 4 (a)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Provides the main features of more than one function of authoring tools	2
• Provides a feature of authoring tools	1

Question 4 (b)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Provides at least two advantages of a LCD over a CRT	2
• List some features of LCD or CRT OR • Gives one advantage of LCD over a CRT	1

Question 4 (c)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Identifies the characteristics and features of the appropriate formatting processes	4
• Identifies the characteristics and features of two formatting processes	3
• Identifies the formatting processes OR • Provides the characteristics and features of one formatting process	2
• Identifies a formatting process	1

Question 4 (d)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Identifies issues and provides points for and/or against the selection and use of clip art	4
• Identifies an issue and provides points for or against the selection and use of clip art	3
• Identifies an issue when selecting or using clip art	2
• Describes clip art and/or gives an application OR • Lists factors in using clip art	1

Question 4 (e)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Provides the characteristics and features of the function of a storyboard • Identifies two appropriate layouts • Makes valid judgement based on appropriate criteria • Uses appropriate sketches to aid the evaluation	8
• Provides the characteristics and features of the function of a storyboard • Identifies an appropriate layout • Makes some judgement based on criteria • Uses sketches to aid the evaluation	6–7
• Provides some characteristics of the function of a storyboard • Identifies an appropriate layout • Makes limited judgement • Uses sketches to aid response	4–5
• Identifies an appropriate layout • Provides point(s) for using a storyboard • Uses a sketch	2–3
• Uses a sketch to identify a layout	1

Question 5 (a)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides the characteristics and features of the purpose of a hyperlink	2
• Identifies the feature(s) of a hyperlink	1

Question 5 (b)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides the main features of two animation methods	2
• Provides features of one animation method OR • Identifies two animation methods	1

Question 5 (c)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Provides the main features of two or more advantages	4
• Identifies two advantages and provides the features of one	3
• Identifies one advantage and provides its features	2
• Identifies one advantage	1

Question 5 (d)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Identifies issues and provides points for and/or against, relating them to web based presentations	4
• Identifies an issue and provides points for and/or against, related to web based presentations	3
• Identifies two relevant issues	2
• Identifies one relevant issue	1

Question 5 (e)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Correctly identifies and relates the implications of a range of essential specifications to video based production	8
• Correctly identifies a range of essential specifications and relates the implications of some of them	6–7
• Identifies and relates the implications of one essential specification OR • Identifies and describes a range of essential specifications	4–5
• Identifies a range of essential specifications	2–3
• Identifies a specification	1

BOARD OF STUDIES
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2004 HSC Industrial Technology
Timber Products and Furniture Industries
Marking Guidelines

Section II

Question 4 (a) (i)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Names a suitable Australian hardwood	1

Question 4 (a) (ii)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Identifies more than one characteristic of a suitable Australian hardwood	2
• Names a characteristic/property	1

Question 4 (b)

Outcomes assessed: H4.3

MARKING GUIDELINES

Criteria	Marks
• Names a suitable process to produce the bevel/splay on in the panel	1

Question 4 (c)

Outcomes assessed: H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Selects one of the methods and provides a good explanation of its advantages and disadvantages	4
• Selects a method and provides a good explanation of an advantage and a disadvantage	3
• Selects a method and provides a good explanation of an advantage or a disadvantage	2
• Selects a method and states an advantage or a disadvantage	1

Question 4 (d)

Outcomes assessed: H1.2, H3.2, H3.3, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Names a suitable hinge and provides a clear sketch to indicate an appropriate method of fitting	4
• Names a suitable hinge and a sketch which lacks detail OR • Provides a detailed sketch without naming the hinge	3
• Names a suitable hinge and gives a poor sketch	2
• Gives a poor sketch to show fitting of suitable hinge without naming the hinge or incorrect name OR • Names a suitable hinge	1

Question 4 (e)

Outcomes assessed: H1.2, H4.3, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Identifies a range of appropriate practices • Provides a detailed explanation of why and/or how the practices would ensure a quality product	8
• Identifies a range of appropriate practices • Provides a good explanation of why and/or how the practices would ensure a quality product	6–7
• Identifies limited appropriate practices • Provides limited relationships between the practices and the quality of the product	4–5
• Identifies limited appropriate practices but provides no relationship between the practices and the quality of the product	2–3
• Identifies an appropriate practice that would be used to ensure a quality product	1

Question 5 (a)

Outcomes assessed: H1.2, H4.1

MARKING GUIDELINES

Criteria	Marks
• Identifies two different joints • States an advantage for each	2
• Identifies TWO joints OR • Identifies ONE joint with an advantage	1

Question 5 (b)

Outcomes assessed: H1.2, H4.1

MARKING GUIDELINES

Criteria	Marks
• Selects an appropriate adhesive • Supports the choice of adhesive	2
• Selects an appropriate adhesive	1

Question 5 (c)

Outcomes assessed: H1.1, H1.2, H3.1, H3.2

MARKING GUIDELINES

Criteria	Marks
• Provides a clear exploded sketch of a suitable corner joint, clearly indicating how the panel is fitted into the frame	4
• Provides a poor exploded sketch of a suitable corner joint, indicating how the panel is fitted into the frame	3
• Provides an incomplete sketch of a suitable corner joint with little or no indication of how the panel is fitted into the frame OR • Provides an indication of how the panel is fitted into the frame with a poor or no sketch of a suitable corner joint	2
• Provides a poor sketch of a corner joint OR • Fitting of the panel only	1

Question 5 (d)

Outcomes assessed: H1.1, H1.2, H4.3, H6.1

MARKING GUIDELINES

Criteria	Marks
• Identifies appropriate features of the timber to be selected • Supports the consideration of each of these features	4
• Identifies appropriate features of the timber • Provides limited support for some of these features	3
• Identifies a feature of the timber • Provides limited support for the feature identified	2
• Identifies some appropriate feature(s) of the timber	1

Question 5 (e)

Outcomes assessed: H1.1, H1.2, H6.1, H7.1

MARKING GUIDELINES

Criteria	Marks
• Identifies appropriate issues and provides points for and/or against, related to both the preparation and application of the finish • Indicates the main features of employer responsibilities	8
• Identifies appropriate issues and provides limited points for and/or against related to both the preparation and the application of the finish • Indicates some features of employer responsibilities	6–7
• Identifies appropriate issues related to either the preparation or application of the finish and provides limited points for or against • Indicates some issues of employer responsibilities	4–5
• Indicates some issues related to either the preparation or the application of the finish • Indicates some issues of employer responsibilities	2–3
• Identifies issues OR • Indicates employer responsibilities	1