

B O A R D O F S T U D I E S
NEW SOUTH WALES

2010 HSC Industrial Technology Timber Products and Furniture Technologies Sample Answers

This document contains 'sample answers', or, in the case of some questions, 'answers could include'. These are developed by the examination committee for two purposes. The committee does this:

- (a) as part of the development of the examination paper to ensure the questions will effectively assess students' knowledge and skills, and
- (b) in order to provide some advice to the Supervisor of Marking about the nature and scope of the responses expected of students.

The 'sample answers' or similar advice are not intended to be exemplary or even complete answers or responses. As they are part of the examination committee's 'working document', they may contain typographical errors, omissions, or only some of the possible correct answers.

Section II

Question 11

Sample answer:



Question 12

Answers could include:

- able to be assembled and disassembled
- takes up minimal space when stored
- lowers transport costs as many more units of furniture may be stored on a truck or container
- less likelihood of damage from factory to customer
- furniture may be purchased and delivered immediately
- cost factor (with reasons)
- ease of handling, storage, transport
- immediate delivery and customer satisfaction in short delivery time and installation of unit

Question 13

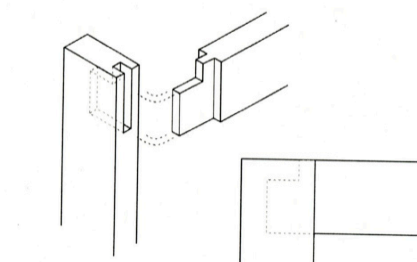
Answers could include:

Mortise and tenon joint
Bridle joint
Dowel joint
Mitre joint

Biscuit joint
Domino joint
Haunched mortise and tenon joint

Sample answer:

A corner joint between two members, formed by fitting a haunched tenon at the end of one member into a corresponding mortise in the other. A tenon is a projection on the end of one member and a mortise is a cavity cut into the other member to receive the tenon.





Question 14

Answers could include:

PPE, machinery, materials and environmental factors.

Question 15

Answers could include:

Consumer acceptance, aesthetics, finish, edge treatment, cost must be qualified, damage resistance, stability, availability of wide sections.

Question 16

Answers could include:

Specialised machine tool technology	CNC Panel saws, Multi-head bores, Routers, Edge banders
Flat packaging	Knockdown fittings, consumer tools for assembly
Specialised hardware	Hinges, latches, drawer slides, soft or self-closing door and dresser slides

Section III

Question 17 (a)

Answers could include:

Environmental considerations which may affect a decision to expand a company or relocate:

- Change in distance from markets/storage/logistics
- Change in distance from suppliers
- The type of manufacturing process involved in the production
- The opportunities to save or recycle waste
- The greater or lesser use (demand for) utilities such as water, electricity, gas and storage
- The environmental consideration of relocating the staff



Question 17 (b)

Answers could include:

Small business must assess what stage the business is currently in (establishment, growth, maturity or post maturity phase) and what business plan they have for the next five years and/or succession planning. The business is relocating to enable expansion.

Structural Issues:

- Relocating will enable the adoption of new strategies in production layout, storage, prototype and development work
- The outsourcing of some production would permit demand and reduction in staff numbers or multi-skilling
- Promote multi-skilling, as job skill enlargement and/or job enrichment. It brings about better management structure with employees getting more responsibility, more job satisfaction, and probably more pay.

Technical Issues:

- Opportunities to adopt new technologies both in production and administration
- Better production flow
- Better quality control measures can be introduced
- Introduce newest and latest means of production
- Enable a true comparison with competitors
- Whereas some jobs may become redundant, other new jobs will be established
- Gives opportunities for retraining/multi-skilling

Personnel Issues:

- Trained, experienced and loyal staff members are a business's greatest asset.
- Any change must be 'sold' to staff, emphasising the improvement and advantages they will be part of
- Change in technology and structure will infringe on staff and therefore care should be taken not to alienate key staff
- Key staff are identified by using a personnel skills audit process looking at an individual's experience, skills and personal qualities
- A change is also a chance to 'cull' personnel that fail to contribute
- Retrained, up-skilled, multi-skilled and loyal employees should be recognised publicly and rewarded