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7906-503 MARCH 2018

Level 3 Advanced Technical Diploma in Architectural Joinery (450)

Level 3 Architectural Joinery – Theory exam

If provided, stick your candidate barcode label here.

Thursday 22 March 2018
09:30 – 12:00

Candidate name (first, last)

First

Last

Candidate enrolment number

Date of birth (DDMMYYYY)

Gender (M/F)

Assessment date (DDMMYYYY)

Centre number

Candidate signature and declaration*

• If any additional answer sheets are used, enter the additional number of pages in this box.

• Please ensure that you **staple** additional answer sheets to the **back** of this answer booklet, clearly labelling them with your full name, enrolment number, centre number and qualification number in BLOCK CAPITALS.

• All candidates need to use a **black/blue pen**. **Do not** use a pencil or gel pen.

• If provided with source documents, these documents **will not** be returned to City & Guilds, and will be shredded. **Do not** write on the source documents.

***I declare that I had no prior knowledge of the questions in this assessment and that I will not divulge to any person any information about the questions.**

You should have the following for this examination

- non-programmable calculator
- a pen with blue or black ink

General instructions

This question paper is the property of City and Guilds Limited and should be returned after the examination.

- This examination contains **22** questions. Answer **all** questions.
- **Section A** – consists of **10** multiple choice questions, each carrying 1 mark.
 - Indicate your response (a, b, c or d) in the space provided.
- **Section B** – consists of **12** structured/short answer questions.
 - Answer the questions in the space provided.
 - The marks for each question are shown in brackets.

Please note that this theory test has been amended to ensure it is fit for purpose for use as a sample assessment.



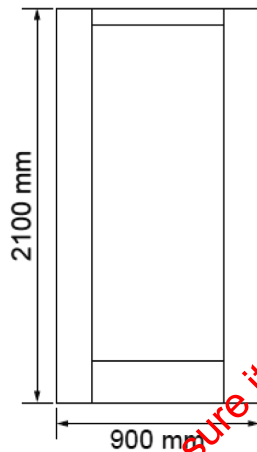
Section A

1 Which regulation requires the HSE to be notified if an operative is off work for seven days due to an accident?

- a) CDM.
- b) LOLER.
- c) COSHH.
- d) RIDDOR.

Response: _____

2 Using the data supplied in Figure 1, calculate the volume of timber required for the following glazed door (do not make any allowances for waste).

**Data:**

Top rail and stiles	Ex 150 x 50
Bottom rail	Ex 250 x 50

Figure 1

- a) 0.0473 m³
- b) 0.0500 m³
- c) 0.0495 m³
- d) 0.4950 m³

Response: _____

- 3 What type of casement window, does the symbol shown in Figure 2 represent?

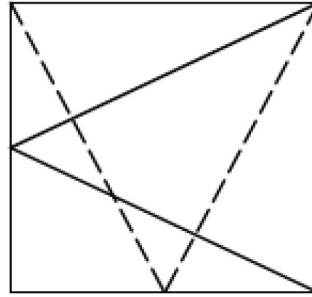


Figure 2

- a) Tilt and turn.
- b) Top opening.
- c) Side opening.
- d) Vertical sliding.

Response: _____

- 4 What term describes a collaborative integrated approach to building design?

- a) Building Simulation.
- b) Computer Aided-Design.
- c) Sustainable Development.
- d) Building Information Modelling.

Response: _____

- 5 After thickening the underside of the timber is showing a repeat pattern of bruising marks, what is the **most** likely cause?

- a) Feed speed too fast.
- b) Feed speed too slow.
- c) The imprint from serrated friction roller.
- d) The imprint from a contaminated friction roller.

Response: _____

- 6 Which machine is used where manufactured boards need to be cut accurately and to fine tolerances?

- a) Rip saw.
- b) Wall saw.
- c) Bandsaw.
- d) Crosscut saw.

Response: _____

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7 Which machine has a thrust wheel and guide assembly?

- a) Ripsaw.
- b) Bandsaw.
- c) Thicknesser.
- d) Surface planer.

Response: _____

8 At what level should additional outfeed roller support be set, when carrying out facing and edging operations on a surface planer?

- a) Level with the infeed table.
- b) Just below the infeed table.
- c) Level with the outfeed table.
- d) Just above the outfeed table.

Response: _____

9 Bruising marks are showing on the underside of timber being brought to thickness. What is the remedy for this?

- a) Reducing the feed speed.
- b) Reducing the depth of cut.
- c) Cleaning the pressure bar.
- d) Cleaning the anti-friction rollers.

Response: _____

10 What is the cause of a hollow square morticing chisel turning blue?

- a) The auger is bent in its length.
- b) The motor speed is set too fast.
- c) The incorrect setting of the chip breakers.
- d) The chisel has not been set square to the fence.

Response: _____

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14 Explain why CAD is the preferred method for producing drawing. (7 marks)

15 State
a) the **maximum** gap allowed between the back of the saw blade and the riving knife at table level (1 mark)

b) the decibel level that hearing protection **must** be worn when using machinery (1 mark)

c) the **maximum** duration allowed for a saw blade to come to a halt when switched off (1 mark)

d) the **minimum** distance allowed from the centre of spindle to the back of the outfeed support table. (1 mark)

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- 16 State the term given to
a) sawing timber through its thinnest dimension (1 mark)

- b) sawing timber through its thickest section. (1 mark)

- 17 State the minimum
a) distance from the end of a cut and push stick must be used (1 mark)

- b) length of push stick allowed. (1 mark)

- 18 State **three** additional operations that can be performed on a rip saw bench other than those given in question 16. (3 marks)

- 19 Describe the machining process of producing **two** components using a rip saw. (6 marks)

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20 Explain the relationship between the saw blade diameter and the peripheral speed, when the saw blade is less than the **minimum** diameter allowed. (5 marks)

21 Describe the process of how 600 mm wide raised and fielded panels are machined and jointed up. (5 marks)

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22 A small joinery company has been asked to quote for a batch run of 50 ash, six panelled doors.
Discuss the considerations and production planning requirements for the doors prior to quoting for this work.

(12 marks)

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