



7905-501 MARCH 2022 Level 3 Advanced Technical Diploma in Bricklaying

Level 3 Bricklaying - Theory exam (1)

If provided, stick you barcode label here.	r candidate	Tuesday 15 N 09:30 – 12:00			
Candidate name (first, las	st)				
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Last					
Candidate enrolment nur	mber Date of birth	DDMMYYYY)	Gender (N	Л/F)	
Assessment date (DDMM)	YYYY) Centre numb	er (Candidate sig	gnature and	d declaration*
• If additional answer she	ets are used, enter the	additional numbe	er of pages in	this box.	

- Before taking the examination, all candidates must check that their barcode label is in the appropriate box. Incorrectly placed barcodes may cause delays in the marking process.
- Please ensure that you staple additional answer sheets to the **back** of this answer booklet, clearly labelling these 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, unless otherwise instructed.
- 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 examination and that I will not divulge to any person any information about the questions.

You should have the following for this examination

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

General instructions

- This examination contains 25 questions. Answer all questions.
- Section A consists of 10 multiple-choice questions, each carrying 1 mark. • Indicate your response (a, b, c and d) in the space provided.
- Section B consists of 15 structured/short answer questions. • Answer the questions in the space provided.
- The maximum marks for **each** question are shown in brackets.
- Cross through any work you do not want to be marked.

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Section A

- 1 Who is responsible for checking the stability of an excavation prior to laying the concrete foundation?
 - a) Land Surveyor.
 - b) The Estimator.
 - c) Building Control Officer.
 - d) The Principle Architect.

Response:		

2 Which insulation material is the **most** environmentally friendly?

- a) PIR.
- b) Glass fibre.
- c) Sheeps wool.
- d) Mineral based.

Response: _____

3 What type of wall construction material provides the **most** effective insulation?

- a) Hollow block.
- b) Engineering brick.
- c) Solid facing brick.
- d) Lightweight block.

Response: _____

- 4 How much concrete in m³ would be required to lay a concrete path 7.500 m long, 0.900 m wide and 0.100 m thick?
 - a) 0.675 m³
 - b) 6.750 m³
 - c) 67.500 m³
 - d) 675.000 m³

Response:

5 Which is a suitable mortar gauge for laying facing bricks?

	Cement	Lime	Sand		
a)	1	2	4		
b)	2	3	6		
C)	1	1	6		
d)	2	2	4		
Response:					

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- 6 Which common defect could cause weakness in a cavity wall?
 - a) Corroded wall ties.
 - b) Sulphate attack.
 - c) Lime leaching.
 - d) Dry rot.

Response: _____

7 Which component is used to assist in the removal of the arch former when providing temporary support to construct an arch?

- a) Laths.
- b) Needles.
- c) Sole plates.
- d) Folding wedges.

Response:

8 Which section of the Building Regulations provides information on fireplaces?

- a) Approved document A.
- b) Approved document B.
- c) Approved document H.
- d) Approved document J.

Response: _____

9 Which component can be fitted to a chimney to assist in the discharge of fumes?

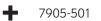
- a) Flue liner.
- b) Cowl.
- c) Pot.
- d) Fire back.

Response:	

10 What size should a throat be made in a solid fuel appliance?

- a) 250 mm
- b) 200 mm
- c) 150 mm
- d) 100 mm

Response: _____



Section B

11	State two construction components that can stop dampness from rising through a building's walls and floors.	(2 marks)
12	State two building materials that are considered to be sustainable in construction.	(2 marks)
13	State the difference between an open and closed tender.	(2 marks)
14	State four sources of information that would be included on a bar chart (Gantt chart) when used to plan a construction project.	(4 marks)

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prior to use.	(6 mai
How do air tightness and photovoltaic panels increase energy efficiency when included in the design of a building?	(4 mai

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P Explain the purpose of a penalty clause in a construction contract. (4 marks)	marks)
Explain the benefits of manual drafting when producing construction drawings. (4 marks)	
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State two uses of engineering bricks in wall construction. (2 marks)	marks)
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What is the cause of efflorescence on the face of a brick wall?	(2 marks
An old building is showing signs of rising damp. Describe a method of replacing a failed damp proof course to the outside leaf of a cavity wall.	(6 mark
State four components that could be used in the construction of a chimney stack.	(4 mark
	An old building is showing signs of rising damp. Describe a method of replacing a failed damp proof course to the outside leaf of a cavity wall.

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23	Why is vermiculite used in fireplace construction?	(2 marks)
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24	Describe the purpose of corbelling at the top of a chimney stack.	(4 marks)
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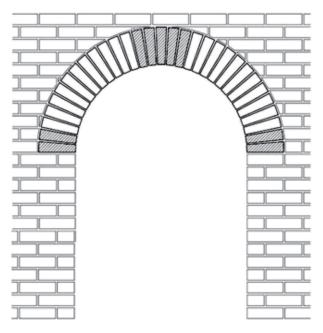
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 - 25 A client has asked you to carry out some refurbishment work to a section of boundary wall, one brick thick, which includes an entrance with an axed semi-circular arch as shown in Figure 1.

The face brickwork has suffered with spalling and some bricks will need to be replaced. There is also vegetation growth and staining on the face of the arch. The client has requested that the finished brickwork must match the existing brickwork.

Discuss the procedures required to carry out the work from **planning** through to **completion** to ensure a successful refurbishment of the wall.

(12 marks)



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Figure 1

15 March 2022	15	March	2022
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