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City & Guilds

7905-501 JUNE 2017
Level 3 Advanced Technical Diploma in Bricklaying (450)
Level 3 Bricklaying – Theory exam

If provided, stick your candidate barcode label here.

Friday 23 June 2017
09:00 – 11:15

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. 0 0
- 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 scientific calculator
- a pen with blue or black ink

General instructions
This question paper is the property of City and Guilds of London and should be returned after the examination.
- This examination contains **21** 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 **11** structured/short answer questions.
  - Answer the questions in the space provided.
  - The marks for each question are shown in brackets.

The test specifications for the 2018 exams have changed.
See the latest qualification handbook for the updated test specification.
The content sampled will vary from this paper.

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Section A

1 Which insulation is **most** suitable for use under a solid floor?
a) Sheep's wool.
b) Glass fibre.
c) Polyisocyanurate.
d) Mineral wool.

Response: _____

2 Who would be involved in preparing an open tender?
a) Estimator.
b) Site Manager.
c) Quality Controller.
d) Building Surveyor.

Response: _____

3 When programming the construction of a timber framed dwelling, what activity is **not** on the critical path?
a) Roof.
b) Brickwork.
c) Foundation.
d) Timber frame.

Response: _____

4 Which software considers the building design, construction and management through the whole life cycle of the building?
a) Manual Drafting.
b) Computer Aided Design.
c) Building Information Modelling.
d) Building Management System.

Response: _____

5 What should be considered when working with cutting discs?
a) Don't use them to cut on scaffolding.
b) Only electric tools require testing.
c) Visual checks should be made before use.
d) Once used they should be discarded.

Response: _____

6 Which item of equipment should be used to set out a wall curved on plan?
a) Sliding bevel.
b) Trammel.
c) Turning piece
d) Square.

Response: _____

Past Paper

7 What name is given to a wall that is built at an inclined angle and is often used to retain higher ground?
a) Tapered.
b) Battered.
c) Tumbled in.
d) Skewed back.

Response: _____

8 What would a square be used for when building a 45° Herringbone panels?
a) To mark all edge cuts.
b) To create the laying angle.
c) To help maintain 10 mm joints.
d) To maintain the 90° bond.

Response: _____

9 Which material would be **best** placed in the bed joints of blockwork to provide extra strength?
a) Reinforced steel bar.
b) Expanded metal lath.
c) Stainless steel wall ties.
d) Wall starter systems.

Response: _____

10 What is the **main** purpose of an oversailing course on a chimney stack?
a) To help shed water away from the stack.
b) It will provide extra strength to hold the chimney pot.
c) It is only there as a decorative feature.
d) To increase draw of fumes up the chimney.

Response: _____

Past Paper

Section B

11 List **three** renewable energy systems used on domestic dwellings. (3 marks)

12 You have been asked to prepare a quote to build the brickwork for a small extension. Explain what should be included in the quote and explain why. (5 marks)

13 Identify **four** points for consideration prior to using independent scaffold. (4 marks)

Past Paper

14 Horizontal cracks are showing at regular intervals on the bed joints of a cavity wall. Explain reasons for this defect and how it could be rectified. (6 marks)

15 Identify **four** pieces of tools and equipment that can be used to build a battered brick wall. (4 marks)

Past Paper

16 Explain how to establish the striking point for a segmental arch. (6 marks)

17 Identify **two** examples for **each**, of where reinforcement could be used when positioned

i) horizontally (2 marks)

ii) vertically. (2 marks)

Past Paper

18 A client has requested that you provide a range of bonding patterns for decorative panels.
Compare the advantages and disadvantages of **two** bonding arrangements that could be used. (10 marks)

Past Paper

19 Give the **two main** reasons for flaunching the top of a chimney stack. (2 marks)

20 Explain why flue liners should be laid with the socket uppermost. (4 marks)

Past Paper

21 A chimney stack on an old house is leaning and in a poor state of repair. It is essential that its appearance does not alter after it is taken down and re-built. The work includes several decorative features including diagonal basket weave, over sailing courses, ramped work and string courses. Special bricks such as squints and dog legs are also required.

Discuss the considerations when approaching this tasks. (12 marks)

Past Paper

Question 21 continued

Past Paper