

7905-30 Level 3 Advanced Technical Diploma in Bricklaying
7905-001 & 501 Level 3 Bricklaying –Theory exam

March 2022 Mark Scheme

| Q no. | Acceptable answer(s) | Guidance | Max marks | Ref |
|-------|----------------------|----------|-----------|------------------|
| 1 | C | N/A | 1 | 301.01.02 AO1 |
| 2 | C | N/A | 1 | 301.01.02 AO1 |
| 3 | D | N/A | 1 | 301.02.03 AO1 |
| 4 | A | N/A | 1 | 301.03.02 AO1 |
| 5 | C | N/A | 1 | 302.01.01 AO1 |
| 6 | A | N/A | 1 | 302.01.02 AO1 |
| 7 | D | N/A | 1 | 302.02.02 AO1 |
| 8 | D | N/A | 1 | 305.01.01 AO1 |
| 9 | B | N/A | 1 | 305.01.02 AO1 |
| 10 | D | N/A | 1 | 305.02.02 AO1 |

| Q11 | Acceptable answers | Guidance | Max mks | Ref |
|-----|--|----------|---------|------------------|
| | <p>Any two of the following for one mark each, maximum two marks</p> <ul style="list-style-type: none"> • Damp proof course. • Damp proof membrane. • Engineering bricks. • Slate. | N/A | 2 | 301.01.02 AO1 |

| Q12 | Acceptable answer | Guidance | Max marks | Ref |
|-----|---|----------|-----------|------------------|
| | <p>Any two of the following for one mark each, maximum two marks</p> <ul style="list-style-type: none"> • Timber. • Reclaimed materials. • Natural resources <ul style="list-style-type: none"> ○ rammed earth ○ straw. • Hardcore. • Bricks/Stone. | N/A | 2 | 301.02.01 AO1 |

| Q13 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|---|-----------|-----------|------------------|
| | <p>A response covering the following points for one mark each, maximum two marks</p> <p>Open tender is <u>open to all who want to make an application</u> to price for the work. (1 mark)</p> <p>A closed tender is when only <u>specific companies or organisations are able to tender</u> for the work. (1 mark)</p> | N/A | 2 | 301.03.01 AO1 |

| Q14 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|--|-----------|-----------|------------------|
| | <p>Any four of the following for one mark each, maximum four marks</p> <ul style="list-style-type: none"> • Start date. • Finish date. • Activities. • Timescales. • Duration of activities. • Plant requirement. • Labour requirement. • Material requirement. | N/A | 4 | 301.04.01 AO1 |

| Q15 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|--|---|-----------|------------------|
| | <p>A response covering the following points for a maximum of six marks.</p> <ul style="list-style-type: none"> • to check the machine <u>is working appropriately</u>, and it is safe to use for the <u>user and the environment</u> (1 mark) • to check the blade is the <u>correct size</u>, to ensure the safety of the user and safety of others. Incorrect blade size could cause the <u>blade to shatter</u> (1 mark). • to check the <u>correct category of blade is fitted for the work being carried out</u> (1 mark) • to check the <u>guard is correctly in place</u>. This will <u>direct the waste away from the operator</u> (1 mark) • to check the <u>oil/petrol in the machine</u> to <u>prevent the machine seizing</u> (1 mark) • to check the <u>fuel tank</u>. This is to ensure <u>no leakage of petrol</u> (1 mark) • to check the <u>stop start switch is operational</u>. This will ensure <u>safe isolation of the machine</u> (1 mark) | <p>If the candidate lists the checks without the reasons award a maximum of three marks.</p> | 6 | 301.01.01 AO2 |

| Q16 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|---|-----------|-----------|------------------|
| | <p>A response covering the following points for two marks each, maximum four marks</p> <p>Air tightness will <u>reduce air flow (1 mark)</u> within the building <u>preventing the loss of heat (1 mark)</u> which results in energy saving</p> <p>Photovoltaic panel <u>harnesses solar energy (1 mark)</u> and <u>generates electricity</u> which results in energy saving (1 mark)</p> | N/A | 4 | 301.02.04 AO2 |

| Q17 | Acceptable answer | Guidance | Max marks | Ref |
|-----|--|----------|-----------|------------------|
| | <p>A response covering the following points for a maximum of four marks</p> <p>A penalty clause is an <u>agreed penalty (1 mark)</u> included within the contract to encourage the contractor to <u>stay on programme (1 mark)</u> and <u>complete the work within the agreed contract time and standards (1 mark)</u>. Failure to complete the work on time would result in the <u>contractor paying financial penalties (1 mark)</u> to the client.</p> | N/A | 4 | 301.03.01 AO2 |

| Q18 | Acceptable answer | Guidance: | Max marks | Ref |
|-----|--|-----------|-----------|------------------|
| | <p>An response covering the following points for a maximum of four marks</p> <p>, it <u>does not require electronic equipment (1 mark)</u> and the knowledge of <u>ICT or specialist training (1 mark)</u>. It allows <u>sketches and drawings to be done on site (1 mark)</u>. It gives the user a <u>knowledge of scale and proportion (1 mark)</u></p> | N/A | 4 | 301.06.01 AO2 |

| Q19 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|---|-----------|-----------|------------------|
| | <p>Any two of the following for one mark each, maximum two marks</p> <ul style="list-style-type: none"> • It can be used as a waterproof cap for a wall. • It can be used where extra strength is required. • It can be used as a damp proof course. • To build a retaining wall. • To build manholes. • Use as a design feature. | N/A | 2 | 302.01.01 AO1 |

| Q20 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|---|-----------|-----------|------------------|
| | <p>A response covering the following points for a maximum of two marks</p> <p>Efflorescence is caused by <u>salts in the bricks</u> (1 mark) or mortar being drawn to the surface by the <u>passage of moisture</u> (1 mark)</p> | N/A | 2 | 302.01.02 AO1 |

| Q21 | Acceptable answer | Guidance: | Max marks | Ref |
|-----|--|---|-----------|------------------|
| | <p>A response covering the following points for a maximum of six marks</p> <p>Remove bricks in <u>alternate sections along the length of the wall</u> (1 mark) and <u>replace the damp proof course ensuring that it laps</u>, (1 mark). <u>Replace the bricks and allow to set and fully fill the joints</u> (1 mark). <u>Remove the remaining sections of wall</u> (1 mark) and <u>replace the dpc in the remaining sections ensuring that it laps</u> (1 mark). Ensure the <u>top joint</u> is packed and <u>fully filled</u> (1 mark)</p> | If candidates describe the process of installing DPC by silicone injection this is acceptable | 6 | 302.02.03 AO2 |

| Q22 | Acceptable answer | Guidance | Max marks | Ref |
|-----|---|----------|-----------|------------------|
| | <p>Any four of the following for a one mark each, maximum four marks</p> <ul style="list-style-type: none"> • Flu liners • Pots • Stone Blocks Corbelling • Bricks • Lead • DPC layers | N/A | 4 | 305.01.02 AO1 |

| Q23 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|--|-----------|-----------|------------------|
| | <p>A response covering the following points for a maximum of two marks</p> <p>Vermiculite will <u>allow for expansion</u> (1 mark) in the back of the fireback, which will <u>prevent the fireback from cracking</u> (1 mark)</p> | N/A | 2 | 305.02.02 AO2 |

| Q24 | Acceptable answer: | Guidance: | Max marks | Ref |
|-----|---|-----------|-----------|------------------|
| | <p>A description covering the following points for a maximum of four marks</p> <p>It <u>stops staining on the face of the stack</u> (1 mark). It <u>enhances the appearance of the stack</u> (1 mark) and it helps to <u>secure chimney pots preventing movement</u> (1 mark). It helps with the <u>shedding of water</u> from the flaunching (1 mark)</p> | N/A | 4 | 305.02.02 AO2 |

| Q25 | Acceptable answer: | Indicative content | Max marks | Ref |
|-----|---|--|-----------|--|
| | <p>Band 1 (1-4 marks)</p> <p>Response is limited and shows a basic understanding of the planning/preparation required prior to the commencement of the work.</p> | <p>Planning</p> <ul style="list-style-type: none"> • survey/investigation to establish suitable materials | 12 | 301. 01.01, 04.01, 04.02, 05.01 302, 01.01, 01.02, |

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|--|--|--|--|------------------------------------|
| | <p>Response demonstrates little knowledge of procedure to follow to ensure the safe removal and replacement of the bricks. No consideration given to security, scaffolding, the control of dust and disposal of waste. Response was disjointed and did not demonstrate a logical sequence. Use of industry terminology was lacking.</p> <p>To access higher marks, candidates should have attempted to follow a logical sequence.</p> <p>Band 2 (5-8 marks)</p> <p>Response shows a good understanding of the planning/ preparation required prior to the commencement of the work. Response demonstrates some knowledge of procedure to follow to ensure the safe removal and replacement of the bricks. Some considerations given to security, scaffolding, the control of dust and disposal of waste. Response demonstrated a logical sequence and showed a reasonable attempt to use industry terminology appropriately.</p> <p>To access higher marks, candidates should have made a good effort to cover most of the sequence.</p> <p>Band 3 (9 -12 marks)</p> <p>Response shows a clear understanding of the planning/preparation required prior to the commencement of the work. Response demonstrates good knowledge of procedure to follow to ensure the safe removal and replacement of the brick. Clear considerations given to security, scaffolding, the control of dust and disposal of waste. Response demonstrated a comprehensive sequence and showed strong use of appropriate industry terminology.</p> <p>To access higher marks, candidates should demonstrate a holistic approach to carrying out the task.</p> | <ul style="list-style-type: none"> • risk assessment/method statement • source/order materials <ul style="list-style-type: none"> ○ bricks ○ mortar ○ sand ○ cement/lime • source/order equipment <ul style="list-style-type: none"> ○ access equipment ○ adjustable steel props ○ mixer ○ masonry saw ○ power washer <p>Preparation for work</p> <ul style="list-style-type: none"> • communication to the client • neighbours • security <ul style="list-style-type: none"> ○ barriers • environmental protection <ul style="list-style-type: none"> ○ control of dust ○ disposal of waste <p>Sequence of operation</p> <ul style="list-style-type: none"> • support existing masonry • remove spalled bricks • replace bricks to match existing • clear vegetation and clean face of the wall • making good to mortar joint matching existing | | <p>02.01, 02.02, 02.03</p> |
|--|--|--|--|------------------------------------|