

Qualification Title: Level 3 Advanced Technical Diploma in Bricklaying (7905-30)

Exam Title: 7905-001 and 501 Level 3 Bricklaying –Theory exam

Version: March 2018

Mark Scheme

Q	Acceptable answer(s)	Guidance	Max marks
1	D		1
2	B		1
3	A		1
4	B		1
5	A		1
6	B		1
7	A		1
8	C		1
9	C		1
10	B		1
11	<p>Answer could include any three from the list for three marks. Any suitable answer accepted.</p> <ul style="list-style-type: none"> • Atmospheric depth • Tree roots • Ground conditions/ types of sub soil • Ground suitability • Bearing capacity • Width of trench 		3

12	<p>Any three from the list for three marks Any other suitable answer accepted</p> <ul style="list-style-type: none"> • Bar chart • Gantt chart • Line of balance • Critical path analysis BIM 		3
13	<p>Any three from the list for three marks Any other suitable answer accepted</p> <ul style="list-style-type: none"> • 1:5 • 1:10 • 1:20 • 1:50 • 1:100 1:200 1:1250 1: 2500 		3
14	<p>Candidate will be awarded a mark per check listed up to a maximum of two marks</p> <p>Candidate will be awarded a mark per justification up to a maximum of three marks</p> <p>Any other suitable answer accepted</p> <ul style="list-style-type: none"> • Height above ground level • Lap with DPM • Bedding position • Quality of material • Corner laps • Minimum lap at join Cavity trays 		5
15 a)	<p>Answer could include any one from the following for one mark Any other suitable answer accepted</p>		1

	<ul style="list-style-type: none"> • Polyisocyanurate • Rockwool • Glass fibre • Insulation blocks 		
15 b)	<ul style="list-style-type: none"> • If sheets are not securely fixed then they could come loose (1 mark) and bridge the cavity (1 mark) • Gaps in sheets could cause cold spots and condensation inside the building (1 mark) • Poorly fitted sheets will affect the insulation property of the completed wall. (1 mark) • If mortar is left between the sheets then it could allow water to track across the cavity (1 mark) • Clear of mortar droppings 		5
16 i)	<ul style="list-style-type: none"> • Preliminaries – toilet, canteen, site office, storage, site security, fencing, lighting, hoarding, temporary roads 	<p>Candidate will be awarded a mark per item listing the items process up to a maximum of two marks</p> <p>Candidate will be awarded a mark per descriptions for two marks</p>	4
16	<p>Candidate will be awarded a mark per item listing the items process up to a maximum of two marks</p> <p>Candidate will be awarded a mark per descriptions for two marks</p> <ul style="list-style-type: none"> • PC sums – bathrooms, kitchen, foundation work, and individual specialist items 		4
17	Any four of the following for four marks		4

	<p>Any other suitable answer accepted</p> <ul style="list-style-type: none"> • Props • Strongboys • Needles • Struts, • Braces • sole board • wedges 		
18 a)	<ul style="list-style-type: none"> • Probable cause is efflorescence caused by salts in the wall (1 mark) being dissolved by water passing through the wall and drying on the surface.(1 mark). 		2
18 b)	<ul style="list-style-type: none"> • Removal -The wall needs to be cleaned by brushing with a soft brush (2 marks) • Cleaned with a wire brush (2 marks) • Cleaned with brick acid (2 marks) 		2
18 c)	<ul style="list-style-type: none"> • Recommended treatment - the wall can be sealed with a silicone based sealant or the source of the water should be stopped (2 marks) 		2
19	<p>Any two of the following for two marks, one mark of each</p> <p>Any other suitable answer accepted</p> <ul style="list-style-type: none"> • Fireback • Throat unit • Vermiculite fill • Corrugated cardboard • Throat lintel • Jambs 		2
20	<p>Any two of the lead components for one mark each, maximum two marks (AO1 knowledge)</p>		6

	<p>Explanation of the purpose and position of each component for four marks, maximum two marks per component.</p> <ul style="list-style-type: none"> • Horizontal tray (1 mark) – bedded in the structure of the chimney (1 mark) to prevent water passing down through the stack (1 mark) • Step flashing (1 mark) – cut into sloping sides of the chimney (1 mark) to cover the soakers and prevent water passage (1 mark) • Back gutter (1 mark) - at the uppermost point where the chimney leaves the roof (1 mark) to provide a seal between the roof and the back of the chimney (1 mark) • Front Apron (1 mark) – at the lower side of the chimney to cover the front soaker (1 mark) to seal between the front flashing and the stack (1 mark) • Soakers – between roof materials and the sides of the chimney (1 mark) to seal between the roof covering (tiles or slates) and the sides of the stack (1 mark) 		
21	<p>Levels marking</p> <p>Intention: Statement about the aim of the question – the target understanding anticipated</p> <p>Band 1 (1 -4 marks) Response is basic and shows limited understanding of the probable cause of the problem. Makes little reference to the methods that could be used to solve the issue. To access higher marks candidates should have included some of the</p>	<p>Indicative content</p> <p>Candidates should recognise that there are several probable causes of the dampness, they should investigate the wall construction to determine whether the wall is solid or cavity wall construction and should then consider whether the ground outside has been raised above Damp proof course level. They could also consider whether the DPC is failing and the possibility that the cavity is full of mortar</p>	12

	<p>Considerations but not clear about the methods of repair.</p> <p>Band 2 (5-8 marks) Response shows some understanding probable cause but doesn't show clear links between the reasons for the problem. Make some reference to the methods of rectification</p> <p>To access higher marks candidates should have considered most of the probable problems and followed a logical sequence to rectify them</p> <p>Band 3 (9-12 Marks) Response shows good understanding of the probable causes and show's clear understanding of how the work should be approached to resolve the problem</p> <p>To access higher marks candidates should have considered all the probable causes and followed a logical sequence of work to resolve the issue and giving clear reasons for each method.</p>	<p>allowing water to bridge the gap and enter the building</p> <p>Treatments and cure will include reducing ground levels, renewing DPC, opening the cavity and removing blockages, or treating the external wall with sealer to prevent passage of water.</p> <p>For no awardable content, award 0 marks.</p>	
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