

Qualification: 7908-001/501 Level 3 Advanced Technical Diploma in Plastering (450) – Theory Exam

March 2019

1	<p>What approved part of the Building Regulations does soundproofing of party walls in domestic dwelling comply with?</p> <p>a) Part E. b) Part L. c) Part C. d) Part D.</p>	
Answer Key	Guidance	Max marks
A	N/A	1
2	<p>Which type of insulation is most suitable between rafters in a loft conversion?</p> <p>a) Fibreglass. b) Polyisocyanurate. c) Vermiculite. d) Polystyrene.</p>	
Acceptable answer	Guidance	Max marks
B	N/A	1
3	<p>What documentation is used to schedule labour and materials for a plastering contract?</p> <p>a) Programme of work. b) Method statement. c) Bill of quantities. d) Job sheet.</p>	
Acceptable answer	Guidance	Max marks
A	N/A	1

4	<p>What circumstance would instigate a toolbox talk?</p> <p>a) Change in personal details. b) Re-directing site traffic. c) Change in local supplier. d) Re-scheduling labour.</p>		
	Acceptable answer	Guidance	Max marks
	B	N/A	1
5	<p>What document is submitted to the building contractor when tendering for construction work?</p> <p>a) Labour schedules. b) Full drawings. c) Material specification. d) Bill of quantities.</p>		
	Acceptable answer	Guidance	Max marks
	D	N/A	1
6	<p>What type of additive can increase the setting time of cement based backing plaster?</p> <p>a) Retarder. b) Accelerator. c) Plasticiser. d) Waterproofer.</p>		
	Acceptable answer	Guidance	Max marks
	B	N/A	1
7	<p>Which background surface would be considered unsuitable for the application of gypsum base coat plaster?</p> <p>a) Blockwork. b) Brickwork. c) Stone wall. d) Concrete beam.</p>		
	Acceptable answer	Guidance	Max marks
	C	N/A	1

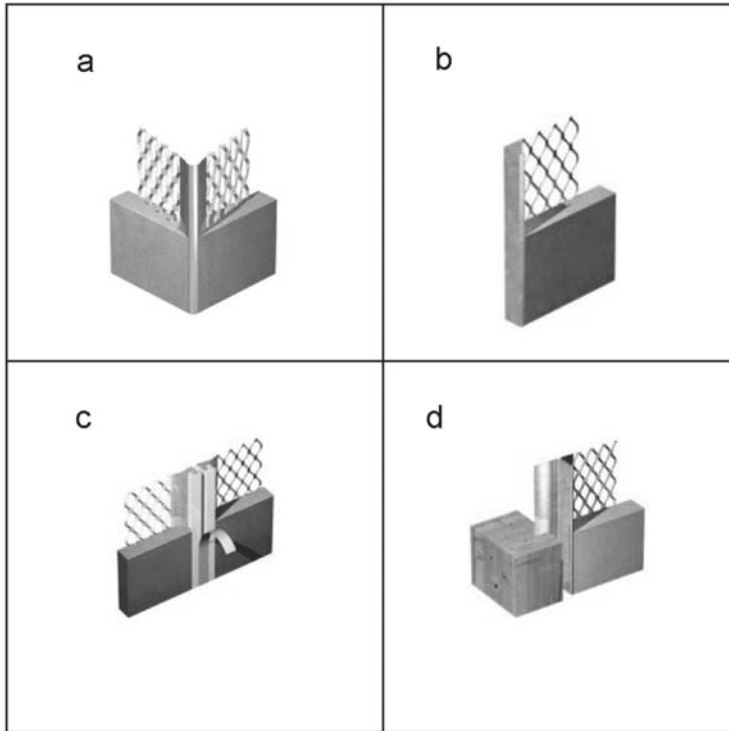
8	After applying the floating coat, which area must be cut back to allow for the application of finishing plaster? a) Service box. b) Window boards. c) Door linings. d) Skirting board.		
	Acceptable answer	Guidance	Max marks
	C	N/A	1
9	Which background is compatible with finishing plaster? a) Timber. b) Blockwork. c) Brickwork. d) Plasterboard.		
	Acceptable answer	Guidance	Max marks
	D	N/A	1
10	What plasterboard requires a sealing agent prior to applying finishing coat plasters? a) Vapour board. b) Sound block. c) Moisture resistant. d) Fire line.		
	Acceptable answer	Guidance	Max marks
	C	N/A	1

11	State two major construction projects a homeowner might undertake that will require building control approval before commencing.		
	Acceptable answer(s)	Guidance	Max marks
	Any two answers from the following; (1 mark for each, maximum of two); <ul style="list-style-type: none"> • Converting an existing space e.g garage, loft or basement (1 mark for stating a conversion). • Erecting a new extension. • Installing internal or external insulation. • Making new openings. • Altering walls. • Changing existing styles (modernising). • Structural changes. 		2
12	Name two plastering materials that require COSHH assessment during manufacture.		
	Acceptable answer(s)	Guidance	Max marks
	Any two answers from the following (1 mark for each, maximum of two); <ul style="list-style-type: none"> • Lime. • Cement. • Types of plaster. • Additives. • Solvents. • Adhesive. • Jointing compounds. 		2
13	Explain the purpose of a risk assessment.		
	Acceptable answer(s)	Guidance	Max marks
	Evaluates hazards (1 mark), then remove that hazard or minimize the level of its risk by adding control measures (1 mark).		2

14	Explain the importance of pre-planning construction work.		
	Acceptable answer(s)	Guidance	Max marks
	<p>Pre-planning allows contractors and subcontractors to fully resource a job correctly (1 mark) ensuring the correct workforce is in place, plant and adequate materials and funds (1 mark). Allows the contract to be scheduled with start and completion dates of the work prevent running over budget (1 mark) this will reduce having to pay additional costs for plant. Labour and materials (1 mark).</p> <p>Avoids any conflict between different trades during the construction process (1 mark) this would require rearranging labour schedules and affect the quality/standard of work (1 mark) or affect working relationships between co-workers (1 mark).</p> <p>Restricting storage and access areas in confined sites (1 mark).</p> <p>Variations causing changes in drawing design (1 mark).</p> <p>Allowances are made to planned health and safety regulations to be carried out and completed (1 mark).</p> <p>Contingencies are allocated to allow for changes to the planned schedule (1 mark).</p>		4
15	List two features of using Computer Aided Design (CAD) when designing and constructing a building.		
	Acceptable answer(s)	Guidance	Max marks
	<p>Any two answers from the following; (1 mark for each, maximum of two);</p> <ul style="list-style-type: none"> • Files can be transferred electronically. • Allows the finished product to be viewed in 3D. • Changes to the design can be made efficiently. • Fully compatible with BIM. • Saves on drawing space. • Provides accurate measurements and dimensions. 		2

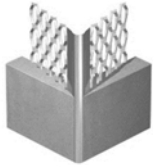

16	List three common methods that are used on a construction site to ensure awareness of health and safety legislation amongst operatives.		
	Acceptable answer(s)	Guidance	Max marks
	Any three answers from the following; (1 mark for each, maximum of three); <ul style="list-style-type: none"> • Site Induction. • Toolbox talks. • Safety signage. • Posters/ banners • Videos/webinars 		3
17	a) Give an example of an environmentally friendly energy system. b) Describe how installing the system mentioned in part a) can reduce a buildings energy consumption.		
	Acceptable answer(s)	Guidance	Max marks
	a) Identification of one system (1 mark) <ul style="list-style-type: none"> • Solar panels; thermal collectors or photovoltaic. • Air/Ground source heat pump. • Wind turbine. • Water turbines. b) Description on how the system will save/reduce energy consumption (2 marks). Solar panels; Thermal – reduces homeowner’s energy consumption from a national gas supplier (1 mark) as the energy is required to run a house is produced from direct sunlight (1 mark). Photovoltaic – reduces homeowner’s energy consumption from a national electric supplier (1 mark) as the energy or electricity required to run a house is produced from direct sunlight (1 mark). Air/Ground source heat pump – reduces homeowners energy consumption as it is able to provide heat to the building naturally from the underground (1 mark) as the energy is produced by pumping fluid through a heat exchanger (1 mark). Wind turbine - reduces homeowners energy consumption from a national electric supplier (1 mark) by transferring kinetic energy from the wind into mechanical power (1 mark). Water turbines - reduces homeowners energy consumption from a national electric supplier (1 mark) by transferring kinetic energy from the water into mechanical power (1 mark).		a) 1 b) 2



18 Describe where each type of bead in Figure 1 would need to be fixed within a building.



Source: www.condell-ltd.com


Figure 1

Acceptable answer(s)	Guidance	Max marks
 <p>a) Doors/windows/beams/solid external angles, external corners/returns</p>  <p>b) Where plaster needs to stop against a different surface such as timber frames, forming panels or frames.</p>		4

	 <p>c) Where a movement joint is present in the background, dividing walls, abutments to existing masonry.</p>  <p>d) Where a feature is required around door/window frames and skirting.</p>		
19	List two types of plastering materials used to reinforce a background that has a settled structural crack.		
	Acceptable answer(s)	Guidance	Max marks
	<p>Any two answers from the following; (1 mark for each, maximum of two);</p> <ul style="list-style-type: none"> • Fibre mesh. • EML sheets. • EML coil. • Rib lath. • High rib. • Staples/stitches. 		2
20	Describe how to set out and fix standard angle beads to two parallel beams in a room.		
	Acceptable answer(s)	Guidance	Max marks
	<p>Mark a datum line around the perimeter of the room (1 mark), transfer measurement from the datum line to ensure simultaneous thickness and levelling points to the beads (1 mark), fix the beads with plaster dabs to each corner of the beam ensuring the arris meets the datum point at each side (1 mark), ensure the beads are level and lining in along their length with a straight edge (1 mark), check dimensions along the soffit from each end of the bead ensuring correct margins (1 mark).</p>		5

21	Explain why one coat plaster would be preferred for making good to solid walls.		
	Acceptable answer(s)	Guidance	Max marks
	It would be preferred as it eliminates the need to apply a base coat and setting coat / multiple application (1 mark), provides a less standing time between backing and finishing plaster (1 mark). The work can be completed in one visit speed of application (1 mark) and will have less waste (1 mark) and would therefore reduce the cost. No delay to other trades (1 mark) that rely on the continuation of work. It can be applied on solid and plasterboard surfaces (1 mark).		2
22	List two types of traditionally formed hard angles that can be formed on openings and returns.		
	Acceptable answer(s)	Guidance	Max marks
	Any two answers from the following; (1 mark for each, maximum of two); <ul style="list-style-type: none"> • Splayed. • Bullnose. • Pencil round. • Quirked or staff. • Sunken oval. • Square/flat return. • Reveals/soffits and cills. 		2
23	Describe how to set out and float out a small barrel ceiling on an EML background.		
	Acceptable answer(s)	Guidance	Max marks
	Position and fix stretchers to the given radius (1 mark), find radius by bisecting the chords on the curved background and fix a headless nail to the centre of stretcher to pivot (1 mark), apply pricking up coat to EML to form a base (1 mark), form screeds to both ends using radius rod or rule (1 mark), fill in between curved screeds, rule and devil float (1 mark).		5

24	Describe two possible defects that could occur when applying backing plaster to different types of background without correct preparation.		
	Acceptable answer(s)	Guidance	Max marks
	Any two answers from the following; (1 mark for identification of defect and 1 mark for description, maximum of four); Cracking (1 mark) material is too strong, mix ratio is incorrect (any 1 of these for 1 mark). Delamination (1 mark) applying strong materials on weak backgrounds, applying backing plaster to poorly keyed (any 1 of these for 1 mark). Crazing (1 mark) suction is too high, background is absorbing moisture from the plaster too quickly (any 1 of these for 1 mark). Sagging (1 mark) plaster is applied to thick, poor consistency of mixed material, background suction is too low (any 1 of these for 1 mark). Popping (1 mark) when applying plaster on loose fixings (1 mark). Sweating (1 mark) when applying the next application on green backgrounds. Low suction (1 mark) backgrounds causing poor adhesion (1 mark). Dusty/greasy (1 mark) backgrounds causing surface cracking and blowing (1 mark).		4
25	Identify two solid wall surfaces that will require preparing with beads before the application of a floating coat.		
	Acceptable answer(s)	Guidance	Max marks
	Any two answers from the following; (1 mark for each, maximum of two); <ul style="list-style-type: none"> • Walls with openings, window walls, walls with door openings. • Walls with returns. • Walls with attached pillars. • Beams. • Adjoining walls. 		2
26	Name two documents that are likely to contain information on the substances contained in gypsum pre-blended backing and finishing plaster.		
	Acceptable answer(s)	Guidance	Max marks
	Any two answers from the following; (1 mark for each, maximum of two); <ul style="list-style-type: none"> • COSSH assessment. • Data sheets. • Manufactures information. 		2

27	List two benefits of using thistle bonding over traditional sand and cement when 'making good' electrical chases in a housing scheme renovation contract.		
	Acceptable answer(s)	Guidance	Max marks
	<p>Any two answers from the following; (1 mark for each, maximum of two);</p> <ul style="list-style-type: none"> • Speed of set, can be finished after two hours. • Ease of mixing on site. • Can be applied on various backgrounds. • Can be finished the same day. • Lighter to use. • Adheres to low suction backgrounds. • Extensive adhesion. • Contains manufactures instructions. • Specified/warranted product. 		2
28	<p>A client has asked a plasterer to carry out renovation work on the inside of his detached house built from clay bricks as shown in Figure 2, which is to be treated for rising damp by a specialist contractor.</p> <p>As the plasterer, you will be responsible for providing adequate protection to the property when removing and disposing of the existing plasterwork in a safe manner. You are also required to supply all the necessary plastering materials to reinstate the plasterwork to patch and blend into the original finish after the insertion of a chemical damp course.</p> <div data-bbox="228 961 1073 1388" style="text-align: center;">  </div> <p style="text-align: center;">Source: www.durbanwaterproofing.co.za Figure 2</p> <p>Propose how you would plan and carryout the work.</p>		
	Acceptable answer(s)	Guidance	Max marks
	<p>Indicative content</p> <ul style="list-style-type: none"> • Planning and communication skills. • Protecting the property. • Safety considerations in relation to tools, equipment and PPE. • Suitable methods for carrying out the work. • Suitable materials and resources for the work. • Waste disposal. 		12

<p>0 - 4 marks Thoroughness of response Poor coverage only referencing a limited number of factors from the indicative content. No supporting statements.</p> <p>Relevance Factors are mostly considered in isolation and only a limited number are linked directly to the project.</p> <p>Accuracy Descriptions are brief and may include poor use of correct terminologies and show elements of confusion.</p> <p>Considered Describes how a few of the factors interact with each other but with no supporting statements and only a limited comparative assessment of the correct process from setting out to applying and finishing the correct plastering method.</p> <p>Supported The candidate draws no conclusions from their proposal.</p> <p>5 - 8 marks: Thoroughness of response Reasonable coverage of a broad range of factors from the indicative content, covering reasons for planning, setting out and carrying out the plastering work. Most of the factors discussed are clearly linked to the project.</p> <p>Relevance The majority of factors considered are accurately linked to the plastering project.</p> <p>Accuracy Logical application of knowledge and accurate use of key terminologies. Most factors are accurately linked to the project.</p> <p>Considered Clearly considers how the majority of the key factors interact with each other but with no supporting statements and showing a comparative assessment of the correct process from setting out to applying and finishing the correct plastering method.</p> <p>Supported Links made between key factors and some conclusions drawn regarding the planning, setting out and plastering procedures.</p>		
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<p>9 - 12 marks</p> <p>Thoroughness of response Thorough discussion with detailed explanations, which consider a comprehensive range of key factors from the indicative content.</p> <p>Relevance All or nearly all points are clearly and accurately linked to the project.</p> <p>Accuracy Good use of terminology and understanding of planning and the key factors that underpin this process.</p> <p>Considered Clearly explains how all or nearly all of the factors interact with each other in an in-depth and evidenced manner. Considers the step by step procedures that must be followed in order for following on trades to be able to undertake their work with least amount of preparation required.</p> <p>Supported Any conclusions drawn will be the result of the accuracy and detail of work procedures.</p>		
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