

T Level Technical Qualification in Onsite Construction (8711)

Onsite Construction Core(8711-30) - Theory exam (2) (8711-032)

Mark scheme

SAMPLE

Marker guidance

Unless otherwise stated in the marker guidance for a specific question, the following conventions apply:

- All marking, from start to finish must be consistent and in line with the mark scheme guidance. Continue to refer to the mark scheme throughout marking.
- For questions that ask for a specific number of points, accept the first answers given up to the number requested e.g. State three... only accept the first three answers listed, and disregard any additional answers provided.
- For questions requiring continuous prose answers, mark positively – all correct answers should receive the appropriate mark according to the mark scheme. Any wrong (**but neutral**) answers should be ignored, and no marks should be lost.
- In some circumstances, it is appropriate to disallow a candidate answer that initially appears to give the correct answer as given in the mark scheme, if it is undermined by the fact that it goes on to actively **contradict** its intention. Sometimes the minimal wording used in the mark scheme allows a match that in reality is trivial and it is clear the candidate is referring to the wrong knowledge/understanding. Only the part of the response to which the contradiction applies should be disallowed, not the whole response. Material that is irrelevant/neutral but not contradictory should be ignored and positive marking applied as above.
- Use all marks for a question as described by the mark scheme – e.g. for a 2-mark question, 0, 1 or 2 marks will always be available to award (never just 0 or 2). For levels marking, the full range of marks should be used freely as described by the mark scheme including 0 and full marks.
- Always award whole marks; $\frac{1}{2}$ marks cannot be awarded.
- Allow phonetic misspellings as long as the meaning is clear, i.e. not so similar to another relevant but wrong term that you have to guess which was intended.
- Only allow 'it' as reference to the question topic if it is clear what 'it' refers to.
- Mark crossed out work **UNLESS** it has been replaced by another response.
- Where judgement is required, apply the guidance. Where the guidance does not sufficiently support for a particular candidate response/interpretation contact your Team Lead.
- Contact your Team Lead if any additional correct answers arise which need to be added to the mark scheme.
- For level of response mark schemes:
 - First, read the full candidate response and decide which band descriptor best fits the overall level of quality of the response.
 - Then, to decide on a mark within the band, consider the **degree to which the response fits the criteria** - depending on the number of marks in the band.

Comprehensively	Top of mark range for the band	5 th	4th	3rd
Substantially	↑	4th	3rd	
Generally		3rd	2nd	2nd
Borderline	Positively mark and place on the bottom of the band	2nd	2nd	
		1st	1st	1st

The table below provides further detail on the descriptors used within each of the mark bands and what is expected at each level. Use the descriptors below alongside the mark scheme to support accurate and consistent judgment of candidate's response and allocation of marks.

	AO2	AO3a	AO3b
Basic	Limited understanding that is relevant to the context or question. Limited accuracy in interpretation through lack of application of relevant knowledge and understanding.	Limited accuracy in analysis through lack of application of relevant knowledge and understanding.	Unsupported evaluation through lack of application of knowledge and understanding. Unsupported judgement through lack of application of knowledge and understanding.
Good	Some understanding that is relevant to the context or question. Some accuracy in interpretation through the application of some relevant knowledge and understanding.	Some accuracy in analysis through the application of some relevant knowledge and understanding.	Partially supported evaluation through the application of some relevant knowledge and understanding. Partially supported judgement through the application of some relevant knowledge and understanding.
Thorough	A range of accurate understanding that is relevant to the context or question. Accurate interpretation through the application of relevant knowledge and understanding.	Accurate analysis through the application of relevant knowledge and understanding.	Supported evaluation through the application of relevant knowledge and understanding. Supported judgement through the application of relevant knowledge and understanding.
Comprehensive	A range of detailed and accurate understanding that is fully relevant to the context or question. Detailed and accurate interpretation through the application of relevant knowledge and understanding.	Detailed and accurate analysis through the application of relevant knowledge and understanding.	Detailed and substantiated evaluation through the application of relevant knowledge and understanding. Detailed and substantiated judgement through the application of relevant knowledge and understanding.

Assessment Objectives

AO1a	AO1b	AO2	AO3
Recall of knowledge	Demonstrates understanding	Apply knowledge and understanding to different situations and contexts	Analyse and evaluate information and issues

The exam has been split into **two** sections.

Below details the types of questions and marks available for each section. Please allow time for each section accordingly.

Section A is made up of **60** marks and includes **20** low tariff and medium tariff, short answer questions, which target recall of knowledge, demonstration of understanding **and** application of knowledge and understanding.

Section B is made up of **30** marks and includes **3** extended response questions, which target application of knowledge and understanding **and** analysis and evaluation of information and issues.

SAMPLE

Section A

Q1	State two principles of material science that must be considered during the construction design process.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<ul style="list-style-type: none"> ● Durability (1) ● Strength (1) ● Chemical composition (1) ● Material properties (1) ● Environmental effects (1) 	Award 1 mark for each up to a maximum of 2 marks Accept any other suitable answer within context	2	2.1 AO1a
KO	KO2 Construction science principles			
Paper	2 lines			

Q2	State the two factors, along with Force, used to determine the mechanical power required to move a load.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<ul style="list-style-type: none"> ● Distance ● Time 	Award 1 mark for each	2	2.2 AO1a
KO	KO2 Construction science principles			
Paper	2 lines			

Q3	During the design stage there are various methods used to display the overall finished look of a project. State two of these methods.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<ul style="list-style-type: none"> • 3D model (1) • 3D CAD drawing (1) • Artist Impression (1) 	Award 1 mark for each	2	10.3 AO1a
KO	KO10 Digital information in construction			
Paper	2 lines			

Q4	State two pieces of information that can be obtained from a Gantt chart.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<ul style="list-style-type: none"> • Beginning and end dates (1) • Timings/durations of particular tasks (1) • Resources required at particular times (1) • Labour requirements at particular times (1) 	Award 1 mark up to a maximum of 2 marks	2	8.2 AO1a
KO	KO8 Information and data principles			
Paper	2 lines			

Q5	State two materials that would reduce the transmission of sound.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<ul style="list-style-type: none"> • Acoustic plasterboard • Double glazing • Insulation 	Award 1 mark up to a maximum of 2 marks Accept any other suitable answer that state materials that reduce the transmission of sound	2	2.7 AO1a
KO	KO2 Construction science principles			
Paper	1 line			

Q6	Give one advantage and one disadvantage that the use of a laser level has over traditional levels.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	Accept answers that show demonstrate understanding of the advantages of laser levels over traditional levels. To include: Advantages: Laser levels are more accurate than spirit levels (1), can be used over much longer distances (1) Disadvantages: Laser levels can be difficult to use in bright conditions (1) cannot level around corners (1)	Award 1 mark for an advantage up to a maximum of 1 mark, and 1 mark for a disadvantage for a maximum of 1 mark Accept any other suitable answers	2	10.2 AO1b
KO	KO10 Digital technology in construction			
Paper	2 lines			

Q7	Describe how a critical path network is used to plan specific tasks within a construction project.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>Accept answers that demonstrate understanding of the critical path network and how it is used to plan specific tasks.</p> <p>A critical path network provides an illustration of how certain tasks depend on the completion of other (1)</p> <p>It is a visual tool to see what order tasks need to be undertaken (1)</p>	<p>Award 1 mark for each up to a maximum of 2 marks</p> <p>Accept any other suitable answers that describes how a critical path network is used to plan specific tasks</p>	2	8.2 AO1b
KO	KO8 Construction measurement principles			
Paper	4 lines			

Q8	<p>A 1000 mm deep trench 300 mm wide and 2500 mm long has been dug for a strip foundation. The original plans detailed a 300 mm deep layer of concrete, but it has been decided to fill the trench to the top.</p> <p>Calculate how much extra concrete will be required, rounded to two decimal places.</p>			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	Ans: 0.53m ³	Award 1 mark for correct answer and 1 mark for working out	2	6.2 AO1b
KO	KO6 Measurement principles			
Paper	4 lines			

Q9	Give two examples of how construction companies can incorporate corporate social responsibility (CSR) into construction projects.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<ul style="list-style-type: none"> ● Community led design (1) ● Energy efficiency initiatives (1) ● Use of local operatives/trades (1) ● Use of sustainable/local materials (1) ● Supporting community initiatives (1) 	<p>Award 1 mark up to a maximum of 2 marks</p> <p>Accept any other suitable answer that demonstrates understanding of how corporate social responsibilities (CSR) are incorporated in construction projects</p>	2	11.4 AO1b
KO	KO11 Construction commercial/business principles			
Paper	4 lines			

Q10	Give two examples of where conflict can arise between a client and their main contractor during a domestic construction project and the conflict management techniques used to resolve them.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>Examples</p> <ul style="list-style-type: none"> ● Contractual issues ● Behaviour issues ● Project change/alteration ● Delay of materials ● Poor quality of work ● Late payments <p>Techniques</p> <ul style="list-style-type: none"> ● Preventing escalation ● Compromise ● Mediation ● Conciliation 	<p>Award 1 mark for example up to a maximum of 2 marks</p> <p>Award 1 mark for the techniques up to maximum of 2 marks</p> <p>Accept any other suitable examples and techniques within context that explain how to manage conflict in the workplace</p>	4	9.9 AO1b
KO	KO9 Relationship management in construction			
Paper	6 lines			

Q11	Describe two ways that sound can enter a building from the outside and two design features that will help keep sound out of the building.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>Accept answers that describe ways sound can enter buildings and design features that prevent sound transmission.</p> <p>Sound can transfer through the structure (1) and through the air (1) this is can be reduced by double glazing (1) and using dense materials such as rubber or acoustic plasterboard (1) or insulation (1)</p>	<p>Award 1 mark for each description to a maximum of 2 marks</p> <p>Award 1 mark for each design feature to a maximum of 2 marks</p> <p>Accept any suitable answers that demonstrates an understanding of sound transfer and how this can be minimised</p>	4	2.7 AO1b
KO	KO2 Scientific principles			
Paper	4 lines			

Q12	Describe two behaviours, putting each into context, that would help maintain good relationships with customers during domestic construction projects.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>Accept answers that identifies and describes behaviours</p> <p>Answers may include the following behavioural descriptors:</p> <p>Good communication (1) to provide clarity on project (1) avoids misunderstanding (1) builds trust (1) reduces disputes</p> <p>Efficiency (1) maintain agreed objectives (1) sets realistic goals (1) uses technology to advantage (1)</p>	<p>Award 1 mark for each behaviour up to 2 marks and 1 mark for the descriptor up to 2 marks</p> <p>Accept any alternative suitable answers that is relevant to the context</p>	4	9.4 AO1b
KO	KO9 Relationship management in construction			
Paper	12 lines			

Q13	Explain two effects moisture can have on construction materials.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>Award marks for an effect of moisture on construction materials</p> <p>Moisture can lead to the corrosion of a building's fabric (1) it can also encourage mould (1) and mildew (1) growth Moisture can also lead to staining of interior walls and ceilings (1)</p>	<p>Award 1 mark for each up to a maximum of 2 marks</p> <p>Award marks for any other suitable answer within the context of the effects of moisture</p>	2	2.5 AO1b
KO	KO2 Construction science principles			
Paper	3 lines			

Q14	Calculate the energy required to raise a 20 kg mass a distance of 15 m.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>$20 \times 9.81 \times 15 = \underline{2943 \text{ J}}$</p> <p>Accept - Gravity rounded to 10: $20 \times 10 \times 15 = \underline{3000 \text{ J}}$</p>	<p>Award 1 mark for correct answer. Answer must be given in the correct units (J or Joules)</p> <p>Award 1 mark for workings out</p>	2	2.2 AO2
KO	KO2 Construction science principles			
Paper	4 lines			

Q15	Explain how photovoltaic energy is generated in a domestic dwelling.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	Photovoltaic energy is generated by using solar cells (1) installed on the south facing side of the property (1) to convert energy from the sun (1) into a flow of electrons (1) by the photovoltaic effect (1).	Award 1 mark for each explanation up to 5 marks Accept any suitable answers within context	5	2.5 AO2
KO	KO2 Construction science principles			
Paper	6 lines			

Q16	Four resistors with values of 10Ω, 25Ω, 30Ω and 45Ω are connected in Parallel to a 110v supply. Calculate: A) Total power dissipated by the circuit. B) The power dissipated by the 30Ω resistor. Show your workings below.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	A) $R_t = 1 / ((1/10) + (1/25) + (1/30) + (1/45))$ $R_t = 5.117\Omega$ (1) $I_t = 110 / 5.117$ $I_t = 21.497 \text{ A}$ (1) Power = 110x 21.497 = 2364.667W (1) B) $I = 110/30 = 3.667\text{A}$ (1) Power = 3.667 x 110 = 403.333W (1)	Award 1 mark for each stage of calculation successfully completed	5	2.3 AO2
KO	KO2 Construction science and Principles			
Paper	10 lines			

Q17	<p>During the design stage of a new build project, your client enquires about the use of “Smart Concrete”.</p> <p>Describe the usage and benefits of this new technology.</p>			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	Smart concrete technology is a new alternative method for monitoring the health of reinforced concrete structures (1). The unique perceived benefit of smart concrete is that it is fortified by carbon fibre (1)	<p>Award 1 mark for use and 1 mark for benefit</p> <p>Accept any other suitable use and benefit that is relevant to the context</p>	2	10.1 AO2
KO	KO10 Digital technology in construction			
Paper	6 lines			

Q18	<p>A new build office is to be illuminated. The client is considering the installation of light tunnels in the roof space to allow for natural lighting and has asked for your opinion.</p> <p>Describe four benefits of utilising natural lighting in a building with regards to a person’s health.</p>			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	The utilisation of natural light in a building can provide health benefits such as creating a more comfortable environment (1), preventing seasonal affective disorder (1) help to regulate a person’s body clock (1) and improve concentration (1). Natural light will also help reduce any mould or mildew developing (1).	<p>Award 1 mark for each benefit up to a maximum of 4 marks</p> <p>Accept any other suitable answer that is relevant to the context</p>	4	2.6 AO2
KO	KO2 Construction science and principles			
Paper	8 lines			

<p>Q19</p>	<p>As part of a design process for a new inner-city medical centre, you are asked to assess the building performance of similar projects in other cities.</p> <p>Whilst assessing a buildings performance various criterion are used, describe two criteria.</p>		
	<p>Acceptable answer(s)</p>	<p>Guidance</p>	<p>Max marks</p> <p>Test Spec ref & AO</p>
	<ul style="list-style-type: none"> ● Sustainability – (are the materials environmentally friendly? How much energy is used to heat/cool the building? How well does the building fabric retain heat (linked to insulation levels and glazing performance)? Is the building water efficient (does it include grey-water recycling)? ● Comfort – can air temperatures, humidity and ventilation achieve a healthy environment? ● Ecology – is there a negative or positive impact on habitats? ● Acoustics – does noise generated by activities in the building adversely affect neighbouring buildings or spaces and vice versa? ● Running costs – how much does it cost to run the building? ● Water tightness – are roofs and openings capable of keeping out rain and other sources of moisture? ● Layout – does the building optimise privacy, sunlight, views, occupant circulation and so on? ● Occupant satisfaction – are the occupants satisfied with the overall resolution of the design? ● Accessibility – is the building easy to use by people with disabilities? Is it safe and secure? ● Society – does the building integrate with and contribute to the local community? 	<p>Award 1 mark for criteria stated up to a maximum of 2 marks and 1 mark for description of criteria up to a maximum of 2 marks</p> <p>Accept any other suitable answers that is relevant to the context</p>	<p>4</p> <p>8.1</p> <p>AO2</p>
<p>KO</p>	<p>KO8 Information and data principles</p>		
<p>Paper</p>	<p>8 lines</p>		

Q20	<p>You are working as a site manager in charge of a large refurbishment project of an NHS hospital.</p> <p>Explain the actions you will take to ensure you adhere with your responsibilities for overseeing health and safety of employees working on site in line with the Health and Safety at Work Act 1974.</p>			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>Accept answers that demonstrate an understanding of the Health and Safety at Work Act 1974</p> <ul style="list-style-type: none"> ● All activities have been risk assessed (1) ● Display a current certificate of Employers' Liability Insurance (1) ● Provide free health and safety training for all employees so they know what hazards they may face and how to deal with them (1) ● Provide welfare facilities for all employees, including those with disabilities (1) ● Display the Health and Safety Law poster for employees, or give out the leaflet with the same information (1) ● Notify certain work-related incidents, accidents, and occupational diseases (1) 	<p>Accept any other suitable answers relevant to the context</p>	6	9.11 AO2
KO	KO9 Relationship management in construction			
Paper	12 lines			

Section B

Q21	<p>A contractor has been appointed to the design, development and implementation of the planning and construction of a community-based project.</p> <p>Analyse and evaluate the corporate and social responsibilities of the contractor.</p>		
	Acceptable answer(s)	Guidance	Max marks Test Spec ref & AO
	<p>Intention: <i>To allow learners to consider and evaluate the corporate and social responsibilities of a contractor during a community-based construction project.</i></p> <p>Indicative content:</p> <ul style="list-style-type: none"> ● Local recruitment- recruit the projects work force locally ● Sustainable resourcing- Minimize resource consumption, maximize resource reuse, Use renewable or recyclable resources. ● Environment - Protect the natural environment. ● Community- Creation or enhancement of community among individuals within a regional area (such as a neighbourhood) or with a common need or interest. ● People - job satisfaction levels and retention rates, how employees feel working for a socially conscious employer, gives them a sense of purpose. ● Business values - Honesty. Integrity, trust worthiness, loyalty. Fairness, concern for others, respect for others, law abiding. ● Ethical transparency - Behaving and conducting business ethically and with sensitivity towards social, cultural, economic, and environmental issues. ● Customer - Businesses should balance profit-making activities with activities that benefit society. Customers no longer want to be sold to — instead, they want to get 	<p><i>For no awardable content, award 0 marks.</i></p> <p><u>Band 1 (1-3 marks)</u></p> <p>Demonstrates a basic use of analysis of the different types corporate and social responsibilities of a contractor</p> <p>Demonstrates basic application of knowledge and understanding of the corporate and social responsibilities of a contractor on a community project</p> <p>Demonstrates basic use of evaluative skills of the impact of corporate and social responsibilities on a community project</p> <p><u>Band 2 (4-6 marks)</u></p> <p>Demonstrates a good use of analysis of the different types of corporate and social responsibilities of a contractor</p> <p>Demonstrates a good use of application of knowledge and understanding of the corporate and social responsibilities of a contractor on a community project</p> <p>Demonstrates a good use of evaluative skills of the impact of corporate and social responsibilities on a community project</p>	<p>9</p> <p>11.1 11.2 11.3 11.4</p> <p>AO2 3 AO3a 3 AO3b 3</p>

	<p>involved with projects that not only care about their business but also care about the world at large.</p> <ul style="list-style-type: none"> ● Suppliers - Responsible purchasing. ● EDI- ensure it is safe and secure and is only used for the purpose it was intended for. ● <p>Construction companies can incorporate CSR in several ways, such as:</p> <ul style="list-style-type: none"> ● Well-designed buildings which improve quality of life and wellbeing. ● Supporting education programmes. ● Supporting local community groups. ● Giving time or other resources for charitable activities. ● Good design and construction of community spaces, such as lighting, cycle paths, landscape, and so on. ● Responsible purchasing. ● Minimising waste. ● Internships and work experience programmes. ● Supporting apprenticeships. ● Flexible working for employees. ● Work-from-home plans, gym memberships, subsidised public transport, and other employee benefits. ● Improved hiring practices. ● Career management, mentoring and training programmes. ● Paying the living wage to all employees. ● Minimising payment delays to subcontractors in the supply chain. ● Energy efficiency initiatives. 	<p><u>Band 3 (7-9 marks)</u></p> <p>Demonstrates a thorough use of analysis of the different types of corporate and social responsibilities of a contractor</p> <p>Demonstrates a thorough use of application of knowledge and understanding of the corporate and social responsibilities of a contractor on a community project</p> <p>Demonstrates a thorough use of evaluative skills of the impacts corporate and social responsibilities of a contractor on a community project</p>		
KO	KO11 Construction & the built environment industry			
Paper	2 pages			

Q22	Analyse and evaluate, using examples, how collaborative working impacts the completion of a construction project.			
	Acceptable answer(s)	Guidance	Max marks	Test Spec ref & AO
	<p>Intention: <i>To allow learners to consider how collaborative working can impact the completion of construction project.</i></p> <p>Indicative content:</p> <ul style="list-style-type: none"> ● Range of different stakeholders from designers to operatives ● Types of work to include design, construction, civil engineering, maintenance sectors ● Specialist contractors ● LOSC, agencies and main contractors ● Produce the work, activities include housing, infrastructure, services, education, hospitals, retail ● Roles and responsibilities ● Health and safety ● Efficiencies ● Project planning ● Communication ● Effective working ● Sharing information/ innovations 	<p><i>For no awardable content, award 0 marks.</i></p> <p><u>Band 1 (1-3 marks)</u></p> <p>Demonstrates a basic use of analysis on the range of collaborative working methods on construction projects</p> <p>Demonstrates basic application of knowledge and understanding on how collaborative working can be made on construction projects</p> <p>Demonstrates basic use of evaluative skills on the impact of collaborative working on construction projects</p> <p><u>Band 2 (4-6 marks)</u></p> <p>Demonstrates a good use of analysis on the range of collaborative working methods on construction projects</p> <p>Demonstrates a good use of application of knowledge and understanding on how collaborative working can be made on construction projects</p> <p>Demonstrates a good use of evaluative skills on the impact of collaborative working on construction projects</p> <p><u>Band 3 (7-9 marks)</u></p> <p>Demonstrates a thorough use of analysis on the range of collaborative working methods on construction projects</p> <p>Demonstrates a thorough use of application of knowledge and understanding on how</p>	<p>9</p>	<p>9.1 9.2 9.3 9.7</p> <p>AO2 3 AO3a 3 AO3b 3</p>

		<p>collaborative working can be made on construction projects</p> <p>Demonstrates a thorough use of evaluative skills on the impact of collaborative working on construction projects</p>		
KO	KO9 Relationship management in construction			
Paper	2 pages			

SAMPLE

<p>Q23</p>	<p>You are working on an international construction project, with many colleagues from different countries.</p> <p>Analyse the different types of measurement methods and discuss how the importance of communicating accurate measurements can impact on the project.</p>			
	<p>Indicative content</p>	<p>Guidance</p>	<p>Max marks</p>	<p>Test Spec ref & AO</p>
	<p>Intention:</p> <p><i>To allow candidates to consider and evaluate different types of measurements and the importance of accurate and appropriate measurement methods, use of standard units of measurement and measurement techniques. Whilst also gaining an appreciation in the importance and use of the measurement standards, guidance and practice, the use of International System of Units (SI) and Derived SI units.</i></p> <p>Accurate and appropriate measurement on construction project performance</p> <ul style="list-style-type: none"> The benefits to contractors, the client/customer, to profitability and project success detailing the implications of not having accurate measurements – in terms of costs, time, and safety <p>Standard units of measurement and measurement techniques</p> <ul style="list-style-type: none"> The types of units of measurement and how these are applied and used in construction projects <p>Measurement standards, guidance, and practice</p> <ul style="list-style-type: none"> How to use standardised procedures for recording measurements knowing their use, including measurement rules <p>International System of Units (SI)</p> <ul style="list-style-type: none"> The Internationally recognised (SI) units of measurement and their application and use in construction calculations 	<p><i>For no awardable content, award 0 marks.</i></p> <p><u>Band 1 1-3 marks</u></p> <p>Demonstrates a basic use of analysis of different types of measurement methods on construction projects</p> <p>Demonstrates basic application of knowledge and understanding of how measurements are communicated on construction projects</p> <p>Demonstrates basic use of evaluative skills on the impact accuracy and appropriateness of measurements have on construction projects</p> <p><u>Band 2 4 - 6 marks</u></p> <p>Demonstrates a good use of analysis of different types of measurement methods on construction projects</p> <p>Demonstrates a good use of application of knowledge and understanding of how measurements are communicated on construction projects</p> <p>Demonstrates a good use of evaluative skills on the impact accuracy and appropriateness</p>	<p>12</p>	<p>6.1 6.2 6.3</p> <p>AO2 6 AO3a 3 AO3b 3</p>

	<p>Derived SI units</p> <ul style="list-style-type: none"> All derived SI units and their application and use in construction including those associated with area, volume, weight, power, energy, and force <p>Higher performing candidates will include clear references to the use of standardised units of measure during planning and construction, international systems of units for calculations and derived SI units detailing the impact of not using them in terms of cost, time and safety during construction projects, with recommendations made that are fully justified and conclusions that are fully supported.</p>	<p>of measurements have on construction projects</p> <p><u>Band 3 7- 9 marks</u></p> <p>Demonstrates a thorough use of analysis of different types of measurement methods on construction projects</p> <p>Demonstrates a thorough use of application of knowledge and understanding of how measurements are communicated on construction projects</p> <p>Demonstrates a thorough use of evaluative skills on the impact accuracy and appropriateness of measurements have on construction projects</p> <p><u>Band 4 10 – 12</u></p> <p>Demonstrates a comprehensive use of analysis of different types of measurement methods on construction projects</p> <p>Demonstrates a comprehensive use of application of knowledge and understanding of how measurements are communicated on construction projects</p> <p>Demonstrates a comprehensive use of evaluative skills on the impact accuracy and appropriateness of measurements have on construction projects</p>		
KO	KO6 Measurement principles			
Paper	2 pages			



SAMPLE

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