

Mark Scheme January 2009

Principal Learning

Construction and the Built Environment

Create the Built Environment: Methods and
Materials

Level 1 (CB104)

Create the Built Environment: Structures
Level 2 (CB204)

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Construction and the Built Environment

Create the Built Environment: Methods and Materials Level 1 Unit 4

Question Number	Answer	Mark
1	Structural engineer Civil engineer Quantity surveyor Building surveyor Architect	(5)

Question Number	Answer	Mark
2(a)	B - Managed	(1)

Question Number	Answer	Mark
2(b)	A - Sustainability	(1)

Question Number	Answer	Mark
2(c)	B - Locally	(1)

Question Number	Answer	Mark
2(d)	C - Waste	(1)

Question Number	Answer	Mark
2(e)	A - Reduce	(1)

Question Number	Answer	Mark
3(a)	A - Concrete blocks	(1)

Question Number	Answer	Mark
3(b)	C - Cement	(1)

Question Number	Answer	Mark
3(c)	A - Air brick	(1)

Question Number	Answer	Mark
3(d)	B - Engineering brick	(1)

Question Number	Answer	Mark
4(a)	C - Plant	(1)

Question Number	Answer	Mark
4(b)	A - Cavity	(1)

Question Number	Answer	Mark
4(c)	C - PVC	(1)

Question Number	Answer	Mark
4(d)	B - Gantt	(1)

Question Number	Answer	Mark
4(e)	C - Cast	(1)

Question Number	Answer	Mark
5(a)	Plasterboard - Stud walls Concrete - Foundations Facing bricks - External walls Copper pipe - Cold water systems MDF - Skirting boards	(5)

Question Number	Answer	Mark
6(a)	Professional - Quantity Surveyor Craft - Carpenter Specialist trade - Steeplejack Supervisory - Site Manager Operative - Labourer	(5)

Question Number	Answer	Mark
7(a)	Both	(1)

Question Number	Answer	Mark
7(b)	Recyclable	(1)

Question Number	Answer	Mark
7(c)	Both	(1)

Question Number	Answer	Mark
8(a)	Forklift truck - Plant Jack plane - Hand tools Tower crane - Plant Cherry picker - Plant Angle grinder - Portable power tools	(5)

Question Number	Answer	Mark
9(a)	C - 2,400,000	(1)

Question Number	Answer	Mark
9(b)	D - Degree	(1)

Question Number	Answer	Mark
9(c)	C - Brownfield	(1)

Question Number	Answer	Mark
9(d)	B - Low	(1)

Question Number	Answer	Mark
10(a)	Aesthetics	(1)

Question Number	Answer	Mark
10(b)	Insulation	(1)

Question Number	Answer	Mark
10(c)	Shelter	(1)

Question Number	Answer	Mark
10(d)	Shelter	(1)

Question Number	Answer	Mark
10(e)	Shelter	(1)

Question Number	Answer	Mark
11(a)	C - Concrete	(1)

Question Number	Answer	Mark
11(b)	A - Safety	(1)

Question Number	Answer	Mark
11(c)	D - Ties	(1)

Question Number	Answer	Mark
11(d)	D - Bill	(1)

Question Number	Answer	Mark
12(a)	D - Batten	(1)

Question Number	Answer	Mark
12(b)	B - Tiles	(1)

Question Number	Answer	Mark
12(c)	A - Rafter	(1)

Question Number	Answer	Mark
12(d)	C - Joist	(1)

Question Number	Answer	Mark
12(e)	B - External wall skin	(1)

Question Number	Answer	Mark
13(a)	A - Excavations	(1)

Question Number	Answer	Mark
13(b)	C - Erect steel frame	(1)

Question Number	Answer	Mark
13(c)	B - Brickwork to external walls	(1)

Question Number	Answer	Mark
13(d)	D - Second fix	(1)

Question Number	Answer	Mark
13(e)	C - External works and drainage	(1)

Construction and the Built Environment

Create the Built Environment: Structures Level 2 Unit 4

Question Number	Answer	Mark
1(a)	Substructures	(1)

Question Number	Answer	Mark
1(b)	Cladding and roofing	(1)

Question Number	Answer	Mark
1(c)	Internal walls & partitions	(1)

Question Number	Answer	Mark
1(d)	Plastering and dry lining	(1)

Question Number	Answer	Mark
1(e)	Second fix	(1)

Question Number	Answer	Mark
2(a)	Wider	(1)

Question Number	Answer	Mark
2(b)	Piles	(1)

Question Number	Answer	Mark
2(c)	Cement	(1)

Question Number	Answer	Mark
2(d)	Tamped	(1)

Question Number	Answer	Mark
2(e)	Water : Cement	(1)

Question Number	Answer	Mark
3(a)	Blockwork	(1)

Question Number	Answer	Mark
3(b)	Insulation	(1)

Question Number	Answer	Mark
3(c)	Softwood	(1)

Question Number	Answer	Mark
3(d)	Wall tie	(1)

Question Number	Answer	Mark
3(e)	Brickwork	(1)

Question Number	Answer	Mark
4(a)	Trussed rafters - Pitched Roof	(1)

Question Number	Answer	Mark
4(b)	Insulation - Both	(1)

Question Number	Answer	Mark
4(c)	Wall plates - Both	(1)

Question Number	Answer	Mark
4(d)	Lintels - Neither	(1)

Question Number	Answer	Mark
4(e)	Firrings - Flat roof	(1)

Question Number	Answer	Mark
5(a)	Considerate	(1)

Question Number	Answer	Mark
5(b)	Damping	(1)

Question Number	Answer	Mark
5(c)	Segregation	(1)

Question Number	Answer	Mark
5(d)	Bund	(1)

Question Number	Answer	Mark
5(e)	Emissions	(1)

Question Number	Answer	Mark
6(a)	Cherry picker	(1)

Question Number	Answer	Mark
6(b)	Hardcore	(1)

Question Number	Answer	Mark
6(c)	Frame	(1)

Question Number	Answer	Mark
6(d)	Bolts	(1)

Question Number	Answer	Mark
6(e)	Fire clad	(1)

Question Number	Answer	Mark
7(a)	Subsoil	(1)

Question Number	Answer	Mark
7(b)	Damp proof course	(1)

Question Number	Answer	Mark
7(c)	Sawn softwood	(1)

Question Number	Answer	Mark
7(d)	Hardcore	(1)

Question Number	Answer	Mark
7(e)	Concrete	(1)

Question Number	Answer	Mark
8(a)	Brown	(1)

Question Number	Answer	Mark
8(b)	Compression	(1)

Question Number	Answer	Mark
8(c)	Tower	(1)

Question Number	Answer	Mark
8(d)	Cladding	(1)

Question Number	Answer	Mark
8(e)	Mastic asphalt	(1)

Question Number	Answer	Mark
9(a)	Scaffolding	(1)

Question Number	Answer	Mark
9(b)	First fix	(1)

Question Number	Answer	Mark
9(c)	Formwork	(1)

Question Number	Answer	Mark
9(d)	mesh reinforcement	(1)

Question Number	Answer	Mark
10(a)	Performance	(1)

Question Number	Answer	Mark
10(b)	Bill of quantities	(1)

Question Number	Answer	Mark
10(c)	Prime cost	(1)

Question Number	Answer	Mark
10(d)	Valuations	(1)

Question Number	Answer	Mark
11(a)	Raft	(1)

Question Number	Answer	Mark
11(b)	Both	(1)

Question Number	Answer	Mark
11(c)	Both	(1)

Question Number	Answer	Mark
11(d)	Neither	(1)

Question Number	Answer	Mark
12	<p>Advantages of prefabrication over traditional construction methods. Any 4 of the following:</p> <ul style="list-style-type: none"> • Speed of construction - less time on site • Minimises impact upon local community - less noise, dust and disruption • Reduction in 'wet' trades reduces drying time • Better quality control (via factory environment) • Lower costs due to the use of assembly workers rather than skilled craftsmen • Improved standards of insulation • Reduction in site waste • Can be clad in a variety of surface finishes • Easier to recycle at the end of the building's useful life • The erection / installation period is less affected by inclement weather <p>Or any other appropriate answer</p>	(4)

Question Number	Answer	Mark
13	<p>Advantages of type 1 (stud partition) over type 2 (blockwork partition):</p> <ul style="list-style-type: none"> • Dry construction - no drying time if wallboard with taped joints is used. Reduced drying time if a skim coat on plasterboard is used • Speed of construction • Can be insulated if required - thermal or acoustic • Can be easily modified or layouts altered. • Easy to conceal services • Does not require a foundation <p>Or any other appropriate answer</p>	(4)

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