

6720-556

Level 3 Constructing the Built Environment (Civil Engineering) –
Sample Questions

Version 1.0 – November 2017

Please note this is not a complete sample theory exam, this document consists of sample questions from across the test specification.

Candidate	Name	Date	DD/MM/YY
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- 1 State **two** factors to be considered when designing axial loaded columns. (2 marks)

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- 2 A timber column of rectangular cross-section is 150 mm wide and 250 mm deep. The maximum allowable bending stress must not exceed 6 N/mm². Determine the maximum bending moment in Nmm that the beam can safely carry. (4 marks)

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- 3 State **two** items of plant or equipment used in the construction of civil engineering superstructures. (2 marks)

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4 Explain the importance of the Construction (Design and Management) Regulations (CDM) in relation to civil engineering projects. (6 marks)

5 Identify the construction materials and/or components in Figures A, B and C. (3 marks)



Figure A

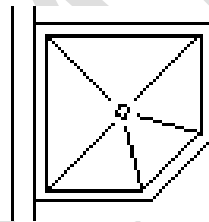


Figure B



Figure C

6 Explain the benefits of PAS 1192 in the BIM environment. (4 marks)

7 A builder has been asked to construct an external patio area at the rear of a domestic property. The area selected for the patio comprises well-drained land that slopes up to a height of 3.5 m in an irregular manner. The intention is to cut back the ground to provide the space required for the patio, and to support the remaining ground with a cantilever retaining wall. The builder intends to consult a civil engineer for advice on the construction of the retaining wall and the preferred materials to use.

a) Produce a simple section through the retaining wall. (3 marks)



b) Explain how the position at which the weight of the wall acts is determined. (3 marks)

SAMPLE