

**6720-044/544 Level 3 Constructing the Built Environment (Design & Planning) – 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.

<b>Candidate</b>	Name	<b>Date</b>	DD/MM/YY
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1 State **two** forms of foundation that can be used in the construction of low-rise domestic buildings. (2 marks)

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2 Explain why the following are requirements of a cold water supply entering a building.

a) The service pipe **must** enter the building at a minimum depth of 750 mm below ground level. (2 marks)

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b) The service pipe **must** enter the building through the wall but not below the foundation. (2 marks)

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3 State **two** benefits of off-site prefabrication in modern methods of construction. (2 marks)

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4 Explain the physical and chemical properties of steel that make it an appropriate structural material for use in medium-rise industrial buildings. (6 marks)

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5 State **two** items of information that should be collected during a site investigation. (2 marks)

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6 State **three** hazards associated with deep excavations. (3 marks)

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7 Failure to comply with health and safety legislation in the workplace can have corporate and human consequences.

a) State **three** corporate consequences. (3 marks)

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b) State **two** human consequences. (2 marks)

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8 Define the term 'infrastructure requirements' as used in architectural design and planning. (2 marks)

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9 Explain how the construction of a new housing estate on a flood plain can increase the risk of flooding in other areas. (4 marks)

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10 A company has purchased land upon which a large petrol station once stood. Their intention is to construct a training centre that will specialise in delivering practical construction crafts training for trades such as brick laying. The training centre does not require gas services, however will require all other building services. The workshop in the training centre, must be at least 6 m high and the structure of the building is to be steel framed.

The company also wishes to build a new home for the resident site service manager. The house is to have all normal building services provided, be single storey and be of traditional masonry construction.

a) Explain the sustainable techniques a designer may wish to incorporate into the house. (6 marks)

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b) Discuss the issues concerned with site clearance, excavation, the construction of foundations and provision of building services to the two buildings.

(12 marks)

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