6720-505 SAMPLE PAPER
Level 2 Technical Award in Constructing and Maintaining the Built Environment

Level 2 – Constructing and Maintaining the Built Environment – Theory exam

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You should have the following for this examination

- a pen with blue or black ink
- a non-programmable calculator

General instructions

This question paper is the property of City & Guilds Limited and should be returned after the examination.

- This examination contains **20** questions. Answer **all** questions.
- Answer the questions in the space provided.
- The marks for each question are shown in brackets.
- Show **all** calculations.

1 Identify the area of the construction industry in which bridges and roads are designed and constructed. (1 mark)

2 Describe the purpose of the planning diagram shown in Figure 1. (2 marks)

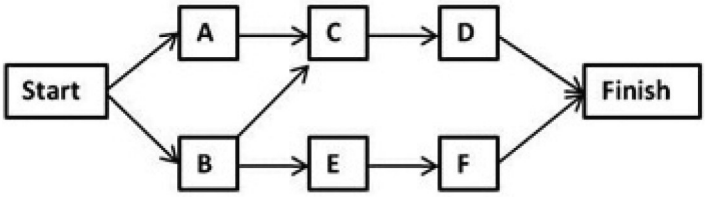


Figure 1

3 Explain **three** reasons why clients' representatives should attend formal site meetings with the contractor. (3 marks)

4 Name the type of drainage that uses land drains. (1 mark)

5 State **two** benefits of using a cavity wall, rather than a solid wall construction method. (2 marks)

6 a) Describe what is meant by 'fixtures and fittings'. (2 marks)

b) Give **one** example of a
i) fixture
ii) fitting. (2 marks)

7 a) State **two** material properties that make masonry suitable for domestic construction. (2 marks)

b) State **one desirable** performance-in-use of expanded polystyrene. (1 mark)

8 The diagrams in Figure 2 show two common forms of domestic groundfloor construction.

Explain why a designer might specify a suspended timber ground floor, rather than the more common solid concrete ground floor, for a modern domestic property. (4 marks)

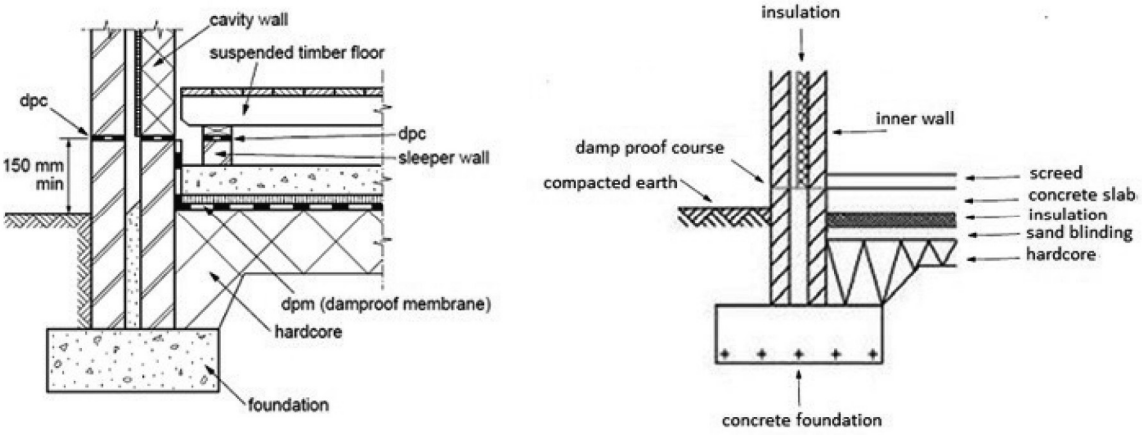


Figure 2

9 In terms of **application** and **maintenance**, compare the following internal wall finishes for a bathroom. (4 marks)

- Gypsum plaster.
- Ceramic wall tiles.

10 It has been calculated that it will take exactly 1740 bricks to repair a damaged wall.

Why should the buyer order 2000 bricks? (2 marks)

11 A building has been badly damaged by water over the years and requires refurbishment.

Identify **three** tasks that could be undertaken to make the property more waterproof. (3 marks)

12 Name **one** part of the superstructure that **must** be inspected in a condition survey. (1 mark)

13 a) Name **one** building service that **must** be carried out by a competent and qualified person. (1 mark)

b) State **one** check that a competent and qualified person is required to carry out. (1 mark)

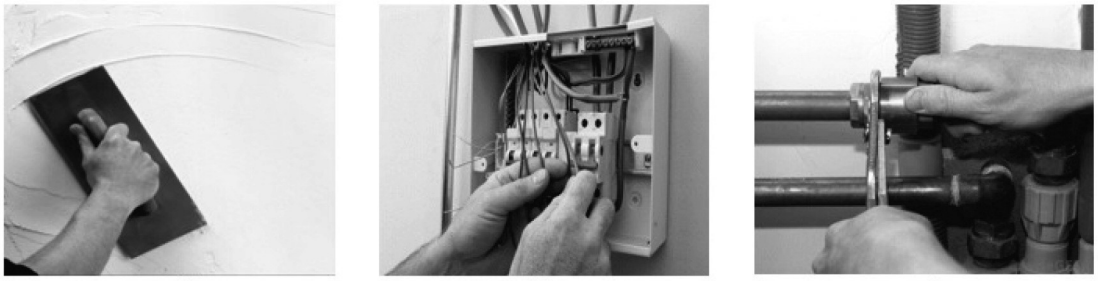
14 An excavator removes 64 m^3 of soil from a trench. The soil bulked by 35% on removalfrom the ground. The bulk density of the soil is 1800 kg/m^3. The soil was loaded on totipper-trucks with a capacity of 20 tonnes.

Determine how many trucks were needed.

You **must** show all your working out. (3 marks)

15 Explain why a client may request a condition survey when purchasing a domestic property. (3 marks)

I6 Name the construction or building service trades that carry out each of the activities in Figure 3. (3 marks)



a) b) c)

Figure 3

a) _____

b) _____

c) _____

I7 Describe the purpose of barrier cream for personal protection when working on a building site. (2 marks)

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I8 a) What does 'CDM' stand for in 'CDM Regulations'? (1 mark)

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b) State **two** of the **main** purposes of the CDM Regulations. (2 marks)

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19 Explain how the job of a site carpenter differs from that of a bench joiner. (5 marks)

20 A detached house is being extended to provide a utility room on the ground floor with two bedrooms above. The existing pitched roof has been continued over the extension. The extension is to be accessed from within the property on both floors. Figure 4 below shows the building at a point during the construction stage.

Figure 4

Discuss the factors that need to be considered before undertaking such a project for it to be a success.

(9 marks)

End of examination