

Write your name here

Surname

Other names

Edexcel
Principal Learning

Centre Number

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Candidate Number

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Construction and the Built Environment
Level 3
Unit 1: Design the Built Environment:
The Design Factors

Tuesday 22 May 2012 – Morning
Time: 1 hour 30 minutes

Paper Reference

CB301/01

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 60.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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PEARSON

Answer ALL questions. Write your answers in the space provided.

SECTION A

1 (a) Describe **two** considerations a project designer should take into account when designing for natural and artificial lighting.

(4)

1

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2

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(b) Describe **two** considerations a project designer should take into account when designing local transport networks.

(4)

1

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(Total for Question 1 = 8 marks)



2 Describe **three** examples of how anthropometric data is used when designing a building.

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(Total for Question 2 = 6 marks)



3 The private finance initiative (PFI) is a way of creating public-private partnerships (PPP) to procure projects.

Describe **three** benefits to the public sector client of using the PFI procurement route to fund a new project.

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2

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(Total for Question 3 = 6 marks)

TOTAL FOR SECTION A = 20 MARKS



SECTION B

4 Long-life, loose-fit buildings are an element of sustainable architecture.

Describe **four** characteristics of a long-life, loose-fit building.

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(Total for Question 4 = 8 marks)



5 Describe **three** factors that could influence the decision of a designer when designing the upper floor structure of a house.

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(Total for Question 5 = 6 marks)



6 Explain **three** benefits of using green roof technology when designing a building.

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(Total for Question 6 = 6 marks)

TOTAL FOR SECTION B = 20 MARKS



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(Total for Question 7 = 20 marks)

**TOTAL FOR SECTION C = 20 MARKS
TOTAL FOR PAPER = 60 MARKS**



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