

Write your name here	
Surname	Other names
Edexcel Principal Learning	Centre Number
	Candidate Number
Construction and the Built Environment Level 3 Unit 7: Value and Use the Built Environment: Protecting and Maintaining	
Friday 22 January 2010 – Morning Time: 1 hour 30 minutes	Paper Reference CB307/01
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.

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

SECTION A

1 Describe **four** methods that could be used to reduce the impact of buildings on the natural environment.

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(Total for Question 1 = 8 marks)



2 Asset management is designed to ensure continual and reliable operation of built assets.

Describe **four** procedures that could be used for the asset management of either public or private projects.

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(Total for Question 2 = 8 marks)



3 Repairs are a key element of reactive maintenance.

Describe the **four** stages involved in carrying out repairs to a building.

Stage 1

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Stage 2

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Stage 3

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Stage 4

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(Total for Question 3 = 8 marks)

TOTAL FOR SECTION A = 24 MARKS



SECTION B

4 Describe **three** transport strategies that could be used to change the travel habits of the general public to meet Government sustainability targets.

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(Total for Question 4 = 6 marks)



5 Describe **three** benefits of planned maintenance to a stakeholder.

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(Total for Question 5 = 6 marks)



6 Describe **three** key risk management strategies used to reduce the probability of building component failure.

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(Total for Question 6 = 6 marks)

TOTAL FOR SECTION B = 18 MARKS



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SECTION C

All questions in Section C refer to the following construction scenario.



Semi-detached domestic dwellings

A local authority is proposing to refurbish its portfolio of two-storey semi-detached dwellings on a large rural housing estate. The buildings are of traditional masonry construction and have not received any substantial maintenance work within the previous 25 years. The local authority wants to apply sustainable principles to the work which must comply with current Building Regulations and environmental legislation.



7 Describe and evaluate **two** energy saving methods of reducing heat loss that could be incorporated into the refurbishment of the semi-detached dwellings.

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2

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(Total for Question 7 = 6 marks)



8 Describe and evaluate **two** different types of material for possible inclusion in the refurbishment work that have a **low embodied energy rating**.

1

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2

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(Total for Question 8 = 6 marks)



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