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

PART A

1. Listed below are four common problems local environments encounter as a result of construction maintenance work. Describe **one** suitable solution for each problem identified.

(a) Pollution of watercourses.

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(b) Site waste.

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(c) Light pollution.

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(2)



(d) Site cleanliness.

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(2)

(Total 8 marks)

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Q1





<p>2. An essential part of the process of monitoring maintenance is the regular review of health and safety. Describe three potentially dangerous situations that require reviewing, whilst maintenance work is being carried out, for the safety of users and visitors to a building.</p> <p>1</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>2</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>3</p> <p>.....</p> <p>.....</p> <p>.....</p> <p style="text-align: right;">(Total 6 marks)</p>	Leave blank
	Q2 <input type="text"/>



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3. The technique of life cycle costing has a direct relationship with the future maintenance of a building.
Describe **three** examples of how a designer can access the information needed to estimate the maintenance costs over time.

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Q3

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TOTAL FOR PART A: 20 MARKS





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PART B

4. Describe **eight** factors that can contribute to the deterioration of a building.

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Q4

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5. Describe **six** advantages of refurbishing or adapting a building rather than choosing a new build option.

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(Total 6 marks)

Q5



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6. Modern buildings are often constructed using new techniques and materials and have to meet increased environmental and building standards.

Identify and describe **three** techniques used by the design team to reduce future maintenance.

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Q6

(Total 6 marks)

TOTAL FOR PART B: 20 MARKS



PART C

7. A large UK company operating in the leisure and entertainment industry is considering signing over the responsibility for the ongoing management and maintenance of its buildings to an asset management company.

The company's operational portfolio consists of 30 buildings including offices, city centre theatres, town centre cinemas, and ten-pin bowling centres.

Most of the buildings were built in the early 1980s and are in a reasonable structural condition. However they are in need of a thorough refurbishment. The company has asked you for advice on specific issues.

Discuss **five** points for **each** of the following:

(a) The benefits to the company of outsourcing the management and maintenance of its buildings.

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(b) The key performance indicators required to assess the effectiveness of the asset management company.

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(c) How the reduction of energy consumption for the refurbished buildings can be achieved.

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(d) How refurbishment can minimise the need for future maintenance.

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Q7

(Total 20 marks)

TOTAL FOR PART C: 20 MARKS
TOTAL FOR PAPER: 60 MARKS

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