

Surname	Centre Number	Candidate Number
First name(s)		0



GCSE – NEW

3509U10-1



Z22-3509U10-1

THURSDAY, 16 JUNE 2022 – MORNING

BUILT ENVIRONMENT

Unit 1: Introduction to the Built Environment

Paper version of on-screen assessment

1 hour 30 minutes

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	8	
2.	8	
3.	4	
4.	4	
5.	4	
6.	6	
7.	7	
8.	10	
9.	9	
10.	10	
Total	70	

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question. You are advised to divide your time accordingly.

The total number of marks available is 70.

You are reminded of the necessity for good English and orderly presentation in your answers.

The quality of your written communication, including appropriate use of punctuation and grammar, will be assessed in your answer to question **10**.



JUN223509U10101

Answer **all** questions.

1. (a) The UK housing industry builds a variety of different homes. State **three** types of house built in the UK. [3]

(i)

(ii)

(iii)

(b) State **three** services that require an electrical supply within a hotel. [3]

(i)

(ii)

(iii)

(c) Name **two** mechanical services often found in large buildings. [2]

(i)

(ii)

2. The built environment has a natural life cycle, which starts with the extraction of raw materials, followed by manufacturing, construction, re-use and demolition.

(a) State **one** raw material extracted by each of the following industries. [3]

(i) Mining:

(ii) Forestry:

(iii) Quarrying:



(b) Mortar is used in the construction of brickwork.
Besides cement, state **two** other materials required for mortar. [2]

(i)

(ii)

(c) Describe how a tree is converted for use in construction. [3]

.....
.....
.....
.....
.....
.....

3. A building has reached its end of life and is going to be demolished.

(a) State **two** details that should be included within a pre-demolition plan. [2]

(i)

(ii)

(b) State **two** safety procedures that must be followed to protect the public during demolition. [2]

(i)

(ii)



4. Complete the table **comparing** the features and properties of religious buildings with those of commercial buildings. [4]
An example has been provided.

Religious	Commercial
1. A place for worship or for social aspects	1. Some social aspects in cafes, but no religious worship
2.	2.
3.	3.

5. A range of different materials can be used to construct a block of flats.
Describe **two** materials that can be used for intermediate floors. [4]

(i)
.....
.....
.....

(ii)
.....
.....
.....



6. Our heritage in buildings should be preserved for the benefit of future generations to enjoy.

State **three** other reasons, with examples, why our heritage in buildings should be preserved. [6]

(i)

.....

.....

.....

(ii)

.....

.....

.....

(iii)

.....

.....

.....



7. The construction industry has moved to more sustainable and environmentally friendly methods of construction.

(a) State **one** social, **one** economic and **one** environmental benefit of sustainable construction. [3]

(i) Social:

.....
.....

(ii) Economic:

.....
.....

(iii) Environmental:

.....
.....

(b) Name **two natural** products and describe how they can be used for insulation. [4]

(i)

.....
.....

.....
.....

(ii)

.....
.....

.....
.....



8. A new development is proposed on a large brownfield site. A derelict brick and concrete building with a slate roof is still on the site.

(a) Outline how each of the following can be achieved. [6]

(i) Minimum waste disposal (other than re-use of materials and recycling):

.....
.....
.....

(ii) Re-use of materials:

.....
.....
.....

(iii) Recycling:

.....
.....
.....

(b) Organisations such as Natural Resources Wales help protect the environment.

State **four** methods of protecting the environment. [4]

Method 1

Method 2

Method 3

Method 4



9. The UK construction industry employs a wide range of different professionals, managers and craft trades.

(a) State **three** trades associated with the installation of building services. [3]

(i)

(ii)

(iii)

(b) State **two** responsibilities of a land surveyor in providing information for the architect. [2]

Responsibility 1

.....

Responsibility 2

.....

(c) Contrast the work carried out by a joiner with the work carried out by a carpenter. [4]

.....

.....

.....

.....

.....

.....

.....

.....



BLANK PAGE

**PLEASE DO NOT WRITE
ON THIS PAGE**

