

New Specification



Rewarding Learning

General Certificate of Secondary Education
2011

Construction and the Built Environment
Assessment Unit 1: The Construction Industry
for the 21st Century

assessing
The Construction Industry
[GCB11]

MONDAY 16 MAY, AFTERNOON



StudentBounty.com

Centre Number
71
Candidate Number

TIME

1 hour 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.
Write your answers in the spaces provided in this question paper.
Answer **all nine** questions.
Questions 1, 2, 3, 8 and 9 should be answered in relation to the enclosed Barn conversion drawings and specifications previously issued as Pre-release materials.
You should not bring any of the material previously issued into this examination.
You will be provided with a clean copy of the pre-release material.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120.
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.
Quality of written communication will be assessed in questions 7 and 9.



A scale rule is required.

6452

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	
Total Marks	

Section A

Answer **all** questions

Use the pre-release materials (Barn conversion drawings and specifications) to assist with answering questions 1, 2 and 3.

1 (a) Label the cross section in **Fig. 1** below using the following terms:

220 mm x 50mm floor joists

Rafters

External stone walling

Window sill

Ceiling constructed from 9.5 mm plasterboard

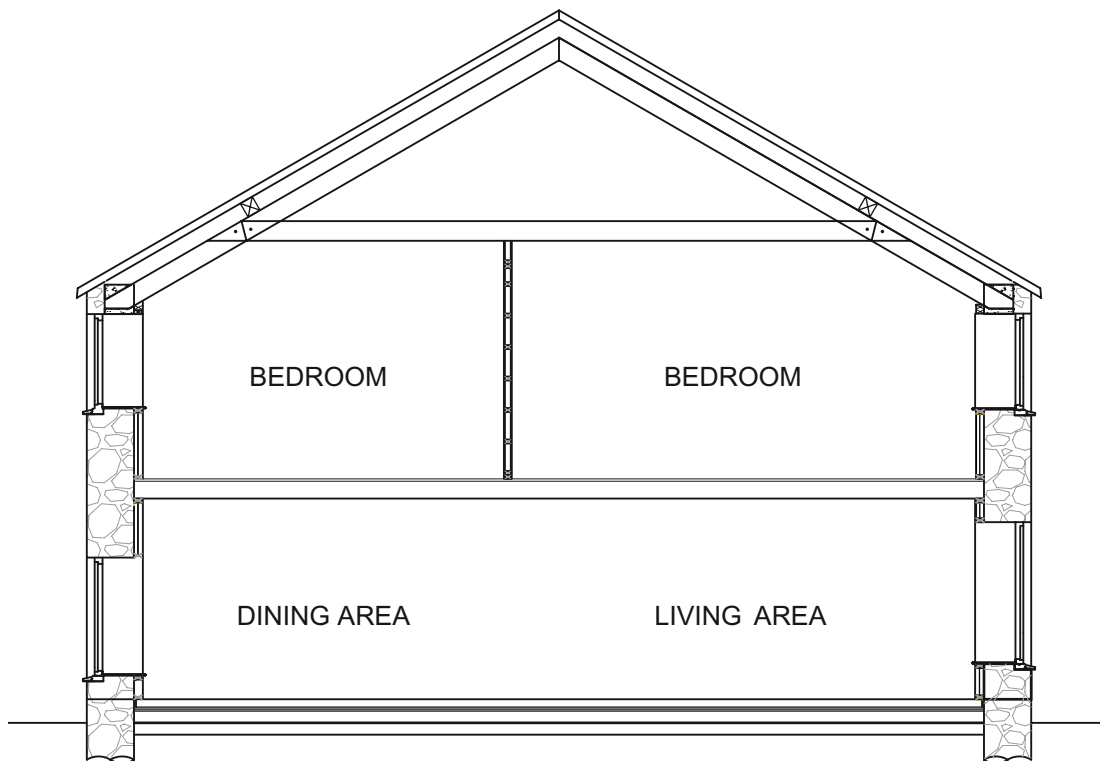


Fig. 1

[5]

Examiner Only	
Marks	Remark

- 2 (a) Explain **three** of the main roles that a Client would have in relation to the barn conversion shown in the pre-release material.

Client

1. _____

 2. _____

 3. _____

- [3]

- (b) Identify **three** of the main roles that the following craft operatives would have in relation to the barn conversion shown in the pre-release material.

Electrician

1. _____

 2. _____

 3. _____

- [3]

Plumber

1. _____

 2. _____

 3. _____

- [3]

Examiner Only	
Marks	Remark

(c) Why is this type of structure suitable for the types of building occupancies you have listed in (b)?

[3]

(d) List **three** advantages of using a steel framed structure.

[3]

Examiner Only	
Marks	Remark

Section B

Answer **all** questions

- 6 (a) List **four** main resources required to undertake any construction project whether the project is large or small.

1. _____

2. _____

3. _____

4. _____ [4]

- (b) Choose **two** of the resources you have listed above and explain how they could be used in the construction of the barn conversion shown in the pre-release material.

1. _____

_____ [4]

2. _____

_____ [4]

Examiner Only

Marks

Remark

9 The external walls of the barn shown in the pre-release material are constructed using solid Basalt stone.

The way in which walls are constructed for dwellings in the United Kingdom has changed considerably over the last one hundred years. Using notes and annotated sketches show some of the stages in the development of wall construction.

The following points may help you with your answer.

- Stone wall
- Solid brick walls
- Cavity wall construction
- Cavity walls with insulation

3 marks per sketch up to a maximum of [10]

Maximum marks for notes [10]

Examiner Only	
Marks	Remark

Continue on next page.

Examiner Only	
Marks	Remark

THIS IS THE END OF THE QUESTION PAPER

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Construction and the Built Environment
Pre-Release Material

Assessment Unit 1: The Construction
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You must use **this** clean copy of the Pre-Release Material in the examination and **not** your own annotated copy.

Construction and the Built Environment

The following materials contain drawings and specifications relating to a barn constructed from stone.

The drawings and specifications relate to an existing barn which is constructed near a small river. The barn is in a rural area well sheltered by mature trees. The site is fairly flat with only a gentle fall towards the river.

The client intends to live in the property once completed.

He has employed an Architect to prepare his designs.

The contractor will be appointed on the basis of selective tendering. The contractor will employ the following team:

- Site Manager
- Joiner
- Plasterers
- Plumber
- Electrician

All other trades will be sub-contractors appointed by the main contractor.

Your client is very interested in environmental issues and wants to make best use of the existing materials already used in the barn. The client also would like to use all possible sustainable resources available on site to reduce his Carbon Footprint when living in the barn.

NOTE Students will require the use of a scale rule during the examination.