

Examiners' Report/  
Principal Examiner Feedback

Summer 2012

Principal Learning  
CB301 Design the Built Environment:  
The Design Factors

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# Level 3 Unit 1: Design the Built Environment: The Design Factors

## General Comments

The number of entries for the externally assessed units was slightly reduced when compared to the previous June session producing a mixed level of responses to the questions posed. As with most of the recent series centres need to advise the learners to apply their answers to the scenario provided in the question paper and where required formulate the answer into a structured report. Also, some of the learners' handwriting is very poor making the responses difficult to read.

## Question 1

As an introduction to the paper the candidates demonstrated a good understanding of the social or economic factors that can influence a project's design in terms of 1(a) natural and artificial lighting and 1(b) transport networks. Popular responses to 1(a) included a north-south facing building and the size/shape of the windows to maximise the use of natural light leading to a reduction in artificial lighting and energy cost. Most of the responses for 1(b) considered transport systems that give accessibility to all people and include traffic calming or low speed areas to increase safety and reduce accidents.

## Question 2

Response to this question was mixed with some candidates producing detailed descriptions of three uses of anthropometric data when designing a building to achieve full marks. However, a number of answers suggested that the use of anthropometric data had not been covered by some centres despite being highlighted in the Unit Specification.

## Question 3

The wide range of responses indicated that the majority of candidates have a good understanding of the benefits to the public sector client of using the Private Finance Initiative (PFI) procurement route. Popular responses included the risk relating to cost and time being allocated to the public sector partner; cost of the project is often deferred for twenty to thirty years and owing to the often complex nature and large size of such projects the specific expertise of the private sector partner can be used to good effect.

## Question 4

The answers showed that many of the candidates have a good understanding of long-life, loose-fit buildings providing detailed descriptions of three of the four characteristics that were required for full marks. Popular responses included the immediate needs of the client/occupier are met but the design makes provision for future changes, the adaptability of the floor plate allows the internal layout to be easily configured and typical uses for this type of building.

## Question 5

The answers produced suggested that the candidates had been reasonably well prepared and could describe two of the three factors that could influence the design of the upper floor of a house that were needed to obtain full marks. The most popular

responses included imposed/dead loadings, reduction of sound transmission and restriction of fire spread.

### **Question 6**

The majority of candidates' responses suggested they have a good understanding of the benefits of green roof technology. Generally, candidates provided detailed descriptions of two of the three benefits that were required to achieve full marks. Popular responses included the roof's contribution to biodiversity, reduction in rain water run-off and the greater mass creating inbuilt heat and sound insulation.

### **Question 7**

Candidates produced a good range of relevant points regarding the benefits to the community of the regeneration of a town or city centre. Generally, the candidates produced clear descriptions that used appropriate terminology. However, the better informed candidates considered a wider range of criteria that were fully developed and evaluated.

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