

**UNIVERSITY OF BOLTON**  
**SCHOOL OF ENGINEERING**  
**BENG (HONS) CIVIL ENGINEERING**  
**SEMESTER ONE EXAMINATION 2021/2022**  
**CONSTRUCTION MANAGEMENT**  
**MODULE NO: CIE6007**

Date: Friday 14<sup>th</sup> January 2022

Time: 10:00 – 13:00

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**INSTRUCTIONS TO CANDIDATES:**

There are **SIX** questions.

Answer any **FOUR** questions.

All questions carry **equal** marks.

Marks for parts of questions are shown in brackets.

This examination carries a total of 100 marks.

All working must be shown where necessary. A numerical solution to a question obtained by programming an electronic calculator will not be accepted.

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Semester One Examination 2021/2022  
Construction Management  
Module No. CIE6007

1. Critically analyse how tools such as Project Bank Accounts can contribute to reducing insolvencies that are linked to cash flow problems experienced by companies in the construction industry.

**25 marks**

2. In the light of established theories, provide balanced advice on options of management/leadership styles construction managers may adopt to achieve success with construction teams.

**25 marks**

3. The Project Manager and Supervisor are important participants named in the NEC4 family of contracts. In a critical discussion, delineate these two roles.

**25 marks**

4. Critically discuss strategies construction managers should put in place to ensure optimum quality management on project sites.

**25 marks**

5. A client, championing a sustainability agenda, solicits your professional advice on a proposed construction project. Provide a critical explanation on how 'value for money' can be achieved on the intended investment.

**25 marks**

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6.

(a) A tier 2 subcontractor submits an invoice for £250,000.00 due for payment in 120 days. The tier 1 contractor approves the invoice quickly, and the subcontractor agrees to take the payment after 30 days; that is 90 days early, having agreed a 4% annual interest rate for taking money early.

(i) What is the 'discount' or 'charge' for taking early payment?  
**(8 marks)**

(ii) Briefly discuss what are the benefits of the 'discount' or 'charge' to the parties  
**(4 marks)**

(b) A tier 2 supplier bids to a tier 1 contractor for a project that is required to be completed in two months.

(i) Evaluate factors worth considering by the tier 2 supplier in deciding a bid amount, given that a net cost of £150,000.00 will do the job.  
**(2 marks)**

(ii) The Tier 2 supplier feels contractors do not always pay suppliers on time. Suggest how the tier 2 supplier can consider this in the bid amount.  
**(2 marks)**

(iii) The Tier 2 supplier decides to submit a bid of £172,000 less 2.5% discount. Payments are subject to 5% retention. Assume only two invoice periods with practical completion actually achieved in two months. At the end of the first invoice period, 70% of the work has been completed. What will be the amounts of money received by the Tier 2 supplier in the instalments paid for the project assuming half of the retention is released on practical completion of the whole work, and the other half released six months later?  
**(9 marks)**

**Total 25 marks**

**END OF QUESTIONS**