

UNIVERSITY OF BOLTON
SCHOOL OF ENGINEERING
BENG (HONS) CIVIL ENGINEERING
SEMESTER ONE EXAMINATION 2018/2019
CONSTRUCTION MANAGEMENT
MODULE NO: CIE6007

Date: Friday 18th January 2019

Time: 10:00 – 13:00

INSTRUCTIONS TO CANDIDATES:

This paper contains **SIX** questions.

Answer **ANY FOUR** questions.

All questions carry equal marks.

Marks for parts of questions are shown in brackets.

This examination paper carries a total of 100 marks.

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

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1. An environmental conscious employer/client who is about to embark on a construction project requires a professional advice from a consultancy. Provide an explanation on how he can achieve 'value for money' on his intended investment.

(25 marks)

2. It is widely acknowledge that construction firms are highly prone to insurgencies due to challenges with cash flow. Discuss how tools such as the Project Bank account amongst others can contribute to reducing risks with cash flow.

(25 marks)

3. In accordance with NEC3 family of contracts define a 'subcontractor' and critically appraise the NEC3 prescribed procedure for dealing with subcontractors.

(25 marks)

4. As a construction project manager discuss how you will go about ensuring quality management on site to achieve perceived benefits.

(25 marks)

5. Reconcile how adhering to health and safety regulations can yield profitability for contracting firms in the construction industry.

(25 marks)

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6.

a. A tier 2 supplier bids to a tier 1 for a project. The work will be completed in one month; assume payment in a month.

(i) The supplier estimates that if it were to secure the project, its net cost will be £120,000.00. Evaluate factors to be considered when deciding the bid amount.

(ii) The Tier 1 contractor proposes to pay for the works one month after receipt of invoices. However, the supplier is aware that contractors do not always pay on time. How may this latter judgement affect the bid amount?

(iii) The Tier 2 supplier decides to submit a bid of £138,000 less 2.5% discount. Payments are subject to 5% retention. At the end of the first invoice period, 70% of the work has been completed. What will be the amount of money received by the Tier 2 supplier?

(10 marks)

b. A tier 2 subcontractor submits an invoice for £150,000.00 due for payment in 120 days. The tier 1 contractor approves the invoice quickly, and the subcontractor decides to take the payment after 30 days; that is 90 days early. What is the 'discount or 'charge' for taking early payment? Assume an interest rate of 4%.

(10 marks)

c. Briefly explain the usefulness of discounting tools in construction projects.

(5 marks)

Total 25 marks

END OF QUESTIONS