

UNIVERSITY OF BOLTON

SCHOOL OF ENGINEERING

BSC (HONS) CONSTRUCTION MANAGEMENT

SEMESTER 1 EXAMINATION 2019/2020

CONSTRUCTION MANAGEMENT C

MODULE NO: CAS6002

Date: Tuesday 14th January 2020

Time: 2.00pm- 5.00pm

INSTRUCTIONS TO CANDIDATES:

There are SIX questions.

Answer 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.

School of Engineering
BSc (Hons) Construction Management
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Construction Management C
Module No. CAS6002

1. 'Acting in an un-ethical manner has an impact on productivity and quality of a construction project'. Discuss.

25 marks

2. Critically appraise the value of the Construction Design Management Regulations when applied to a construction project over its life cycle.

25 marks

3. Evaluate a range of current issues that are likely to be predictors of future performance of the construction sector in 2020 and beyond.

25 marks

4. Critically appraise the value and track record of the "Considerate Contractors Scheme," and its impact on the image of the construction industry.

25 marks

5. Discuss the concept of using "Building Information Modelling (BIM)" to facilitate quality and management on projects.

25 marks

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6. Table 1 details some construction activities labelled A to P. Costs are given for 'normal', and 'crash' durations. Draw the arrow diagram for the normal duration and calculate the cost. Calculate the earliest start, earliest finish, latest start, latest finish and float for each activity. Crash the programme and calculate the cost for successive one day savings in duration, upto and including the minimum project duration. Calculate the total crash cost.

State all assumptions used in the analysis.

Table 1

Activity	Predecessor	Normal duration		Crash duration	
		Time days	Cost £s	Time days	Cost £s
A	I	6	3 500	-	-
B	A	3	2 800	2	4 500
C	A	3	2 000	-	-
D	B and C	4	4 000	3	9 000
E	B	4	10 500	3	12 000
				2	15 000
F	B	7	7 000	6	8 000
				4	10 500
G	F	5	10 500	-	-
H	E	8	3 500	5	5 000
I	-	5	2 000	4	4 000
				3	7 000
J	A	10	4 000	-	-
K	H	5	3 500	4	4 000
				2	8 000
L	G	3	6 000	-	-
M	L and K	6	4 000	4	5 000
N	D	10	8 000	-	-
O	M and N	7	10 000	-	-
P	J and O	10	5 000	5	7 500

25 marks

**END OF QUESTIONS
 END OF PAPER**