

**UNIVERSITY OF SOUTH AUSTRALIA
SCHOOL OF GEOINFORMATICS, PLANNING & BUILDING**

PROGRAM(S): **Bachelor of Construction Management & Economics**

COURSE: **QUANTITY SURVEYING 2N (BUIL 4021)**

EXAMINATION: **Internal Examination, Semester 1, 2003**

DURATION: **10 minutes of Reading time plus 3 Hours of Exam time, a total of 3 Hrs 10 Min. For ENTEXT students 10 min of Reading time plus 3.5 Hrs of Exam time, a total of 3 Hrs 40 Mins.**

EXAMINER: **Morrie Croucher, Tel 8302 2227 (School Office)**

INSTRUCTIONS TO CANDIDATES:

- Write your name on the examination answer booklet
 - Candidates must include all loose worksheets with their answer books and be clearly marked with their Student ID No.
 - This exam is worth **70%** of the total course marks
 - This is a **CLOSED BOOK** Examination
 - **All questions must be answered**
 - **Calculator is allowed**
 - State any assumptions made
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NOTES FROM EXAMINER:

The paper is divided into three sections . Marks are as follows:

- | | | |
|-------|---|----------|
| (i) | PRE CONTRACT PRACTICE | |
| | QS SERVICES prior to the signing of the construction contract | |
| | Question 1 | 15 marks |
| | Question 2 | 10 marks |
| (ii) | POST CONTRACT PRACTICE | |
| | QS SERVICES during construction works | |
| | Question 3 | 10 marks |
| | Question 4 | 5 marks |
| (iii) | OTHER QS SERVICES | |
| | Question 5 | 15 marks |
| | Question 6 | 20 marks |
| | Question 7 | 15 marks |

NOTE: Neatness and general presentation 10 marks

PRE CONTRACT PRACTICE

Question 1

(15 Marks)

You are a director of a quantity surveying practice and have been asked to submit a fee proposal to provide quantity surveying services during the pre contract phase for a new office development.

Draft a letter outlining the scope of work you propose to be provided during this phase commencing with a feasibility study.

PRE CONTRACT PRACTICE

Question 2

(10 Marks)

- a) Explain the difference between time related preliminaries and non-time related Preliminaries. Why is it important to identify these costs separately? Can some items be a combination of both? Explain.
- b) The following is a summary of preliminaries items received from a contractor for a low-rise construction project with a 6 month construction period commencing in June 2003.

Temporary Offices (Hire)	8,000
Temporary Hoardings	6,000
Insurances	10,000
Site Sign Board	3,000
Site Staff Supervision Costs	60,000
Mobile Crane	15,000
Set Out (Surveyor)	3,000
Scaffolding	10,000
Site Establishment	5,000
Clean Up and Handover	<u>6,000</u>
	\$126,000

Prepare an estimated cash flow for the above Preliminaries items showing anticipated monthly progress payments.

- c) Calculate a 20 day prolongation cost for a principal caused delay in the middle of the construction period for the above appropriate items and explain your methodology.

POST CONTRACT PRACTICE

Question 3

(10 Marks)

You are a director of a quantity surveying practice and have been asked to submit a fee proposal to provide quantity surveying services during the construction phase for a new office development.

Draft a letter outlining the scope of work you propose to be provided during this phase.

POST CONTRACT PRACTICE

Question 4

(5 Marks)

A builder has requested payment for unfixed materials and goods. As the Site Quantity Surveyor, would you recommend payment in the following circumstances? Explain why, and if you would recommend payment, outline your requirements before you would recommend the payment.

1. The builder has windows delivered to the site 6 months before installation will be possible.
2. The builder has requested payment for pre cast concrete panels, which have been manufactured and stored in the precast concrete sub contractor's premises.
3. The builder has reinforcement fabric delivered to the site, which is 50% laid at the time of the progress payment. He requests payment for materials only for the balance of the 50% fabric.

OTHER QS SERVICES

Question 5

(15 Marks)

INSURANCE VALUATION

You are a consultant Quantity Surveyor and have been requested by a building owner to prepare a replacement cost estimate for insurance purposes for a suburban shopping centre.

The salient factors are:

Today's date	June 2003
Insurance policy commencing date	September 2003
Insurance period	12 months
Current estimated cost of shopping centre	\$5,400,000
Current estimated demolition costs	\$100,000
Allowance for architects and consultants fees	12%
Escalation rate	3% per annum

Time allowance for:

- | | | | |
|----|-------------------------------|---|-----------|
| 1. | Demolition, Design & Approval | } | 5 months |
| 2. | Documentation | | |
| 3. | Tender Period & Acceptance | | |
| 4. | Construction period | } | 18 months |

Prepare a replacement cost estimate showing all of your calculations

State what items are specifically *excluded* from the estimated cost of replacement.

The Building Owner has suggested that he may reduce the replacement value shown on your certificate in order to lower his insurance premium. What would be your advice to him?

OTHER QS SERVICES

Question 6

(20 Marks)

Define the following items and outline briefly the relevance to the Quantity Surveyor:

1. Professional Indemnity Insurance
2. Life Cycle Costing
3. Value Management
4. Day Works
5. Tax Depreciation Schedules for Buildings
6. Quantity Surveying Fee Scale
7. Expert Witness
8. Quality Assurance
9. Arbitration
10. Litigation

OTHER QS SERVICES

Question 7

(15 Marks)

MC Building Company has partly completed construction of a new shopping centre. Construction finance has been provided to a maximum of \$5m.

MC Building Company has cash flow problems and has appointed a receiver/manager to advise whether the company should continue to trade or go into receivership.

You are a consultant quantity surveyor and you have been approached by the Receiver Manager to provide advise concerning his client MC Building company completing the shopping centre project.

After review of the Builder's accounts for the project, the following situation is revealed:

	Developer's "Original Budget" Provided to Bank	Developer's Expenditure to Date (excluding Creditors)	Developer's Outstanding Expenditure (Creditors)	QS Estimate of Costs to Complete the Project
Labour Costs	1,300,000	800,000	0	700,000
Plant Costs	1,000,000	600,000	100,000	150,000
Material Costs	1,550,000	725,000	350,000	475,000
Overhead Costs	300,000	175,000	0	150,000
Profit	500,000	0	0	0
Contract Budget	\$4,650,000	\$2,300,000	\$450,000	\$1,475,000

Progress payments made to date:

Total Gross Certificate	\$2,350,000
<u>Less Retention 10%</u>	235,000
Total Net Payment	\$2,115,000

Draft a report to the receiver/manager covering the following points:

- A. If the Builder is allowed to continue with the project and the bank continues to provide funds:
1. What is the potential profit to be gained by completing the project and how does this compare with the original estimated profit?
 2. Does it appear that the builder has been fairly paid for the work he has done to date?
 3. How much money will be required immediately to satisfy the creditors?
 4. What component of the ongoing expenditure will have to be very carefully monitored?

OTHER QS SERVICES

Question 7 (continued)

Considering all of the foregoing factors and in particular:

1. The amount of money paid to date by way of progress payments to the builder.
2. The money due to the creditors.
3. The potential profit to be made.

Do you think it would be a reasonable commercial risk to allow the builder to complete the project **or** do you think the builder should cut his losses and go into receivership?

Include all of your calculations in your answer.

END OF QUESTIONS