

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

PROGRAM: **Bachelor of Construction Management & Economics**

COURSE: **CONSTRUCTION MANAGEMENT 3**  
(08185) **BUIL 4012**

EXAMINATION: **Semester 1, 2003**

DURATION: **3 Hours of Exam time preceded by 10 minutes of Reading time, a total of 3 Hrs 10 Mins.**

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

EXAMINER: **Virginia Mehrtens, Tel 8302 2041**

**INSTRUCTIONS TO CANDIDATES:**

- This exam is worth 30% of the total course marks
- You must answer Questions 1 and 2 in Section A and any two Questions from Section B. **(Four questions total.)**
- The value of each question is noted adjacent to the question.
- Any reference materials are allowed. Calculator is allowed.
- State any assumptions made

<b>Section A (You must answer both Questions 1 and 2.) 60% total Section A</b>
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**Question 1 (30%)**

There is the view that unless a construction company can guarantee its clients a quality product it can no longer compete effectively in the modern construction market. (Harris & McCaffer, 2001, p6.) At the same time, the construction industry has a fragmented structure, which traditionally separates the design and construction processes and which can use more than 100 specialist subcontractors and suppliers on a major construction project.

Quality control, quality assurance and total quality management have roles to play in implementing quality management, and their adoption is becoming widespread, but what does it mean for construction companies to implement any of these approaches *in such a fragmented environment?*

**Identify and discuss some of the implications of this fragmented structure of the industry on the implementation of quality management.**

In your consideration of the implications you should **briefly** explain any key concepts.

**Question 2 (30 %)**

1. Identify and discuss the major driving forces which are causing change in the procurement systems for major private and public sector projects. In your discussion refer to examples from the industry, which are evidence of the driving forces and the occurrence of change. (8%)
2. Identify and discuss some of the benefits, which may be provided for client and contractor when an appropriate procurement system is utilised on a construction project. (8%)
3. Identify the major issues, which you would consider in recommending an appropriate procurement system to a client. (8%)
4. If change is under way in procurement in the non-residential sector of the industry, then what do you consider are the implications for the residential sector? (6%)

**Section B (Choose any two questions from this section.) 40% total Section B**

**Question 3 (20%)**

*“Management is getting things done through other people.”*

Describe and discuss some of the desirable arrangements (including but not limited to company objectives, organisational structure, communication, leadership,) which you consider would be appropriate for the management of Confident Constructions, which:

- is a private company , with two partners who are active in the business
- has been operating for 10 years
- has achieved a turnover of approximately \$25 million
- employs 60 people - 20 office based staff, including estimators, project managers, designers, administrative support, and 40 site based supervisors and tradespeople.
- operates in Adelaide and near country areas
- undertakes lump sum construction contracts for private and public sector clients won through a competitive tender process from a selected tender list.
- undertakes asset management contracts
- has recently undertaken 2 development projects where the company provided the finance as well as design and construction services.

***State any assumptions.***

**Question 4 (20%)**

*“Virtually all decisions are made in an environment of at least some uncertainty”.*

1. Discuss how management in construction organisations may decrease the uncertainty in decision making. (10%)
2. Describe at least one technique, which may be used to assist decision-making, and describe how it might be applied to a specific decision. (10%)

**Question 5 (20%)**

1. Explain the concepts of strategic management and competitive advantage. (5%)
2. Outline the major components of the strategic management process. (5%)
3. Outline Porter’s five competitive forces model and use the model to assess the nature and intensity of competition in the construction industry in South Australia. (10%)

**Question 6 (20%)**

1. Explain how selected accounting ratios may be used to assist in interpreting financial statements to analyse the financial performance of a company. (8%)
2. Identify some of the limitations on the use of financial statements for this purpose. (6%)
3. Discuss how the performance of one company, as indicated by the ratios calculated, may be compared to the performance of other companies. (6%)

END OF QUESTIONS