

**UNIVERSITY OF SOUTH AUSTRALIA**  
**SCHOOL OF NATURAL & BUILT ENVIRONMENTS**

**PROGRAM:** Bachelor of Construction Management & Economics (Hons)  
Graduate Certificate in Building & Planning

**COURSE:** Construction & Fire Engineering 1N (Construction part of CIVE 4009)  
Building Construction & Materials 6 (BUIL 5010) (Formerly 05475)

**EXAMINATION:** Internal Exam, Semester 1, 2004

**DURATION:** 2 Hours of Exam time preceded by 10 minutes of Reading time, a total of **2Hrs 10 Mins**.  
For **ENTEXT** students 10 minutes of Reading time plus 2Hrs & 20Mins of Exam Time ie a total of **2Hrs 30Mins**

**EXAMINER:** Assoc Prof George Zillante (Tel 22379)

**REVIEWER:** Jeremy Coggins

**INSTRUCTIONS TO CANDIDATES:**

- This exam is worth 50% of the construction component of the course
- You **MUST** answer **question 1** and any two of the remaining 3 questions so that a total of 3 questions is answered.
- The value of each question is noted adjacent to the question
- Open Book Examination ie all references permitted

**NOTES FROM EXAMINER: Nil**

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**Question 1 (COMPULSORY) (50 Marks)**

A Developer is proposing to construct a 19-storey residential apartment building on North Terrace, the major Boulevard flowing through the City of Adelaide. You have been approached to tender for the project and, as part of the tender, you are required to submit a report on the following:

- What cladding system you would use and why? **(10 Marks)**
- What cladding material you would use and why? **(10 Marks)**
- What type of roofing system and material you would use and why? **(10 Marks)**
- What type of stormwater disposal system you would use and why? **(10 Marks)**
- What Intelligent Technologies you would use in the building and why? **(10 Marks)**

Prepare a report which addresses the five points listed above.

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**Question 2 (25 Marks)**

Discuss what you understand to be the three most critical issues that need to be considered when selecting a cladding system and cladding material for a multi-storey building. Illustrate your answer with examples.

**Question 3 (25 Marks)**

Discuss the roofing and ceiling system that you would recommend for a building to house Melbourne's new indoor Commonwealth Games swimming pool.

**Question 4 (25 Marks)**

Discuss what you understand to be the three most important advantages that the adoption of 'constructability' can provide to major construction projects. Illustrate your answer with examples.

**END OF QUESTIONS**

**(TOTAL MARKS AVAILABLE IS 100)**