

UNIVERSITY OF SOUTH AUSTRALIA  
SCHOOL OF GEOINFORMATICS, PLANNING AND BUILDING

PROGRAMS **Bachelor of Construction Management & Economics**  
**Graduate Certificate in Building and Planning**

COURSES **10286 Structures 2 *Superstructure Component***  
**02620 Building Structures 6 *Superstructure Component***

EXAMINATION **Semester 2, 2002**

DURATION **2.0 hours**

INSTRUCTIONS TO CANDIDATES:

- **You must answer all three questions** [60 marks total]
- State any assumptions made
- **Any references are permitted**
- Answers to all questions shall include diagrams, references to appropriate codes and acknowledgment of information sources as necessary

**Question 1** [20marks]

[5 marks each part]

“A structural member may be strong enough to resist safely the bending moment due to applied loading, and yet **not** be suitable because its deflection is too great.”

[a] Briefly explain the meaning of the statement above.

[b] Identify and briefly describe at least three examples of problems which may be caused by excessive deflection of structural members.

[c] Identify at least three factors which influence deflection.

[d] Describe the approach contained in the Code AS 3600 *Concrete Structures* to avoid excessive deflection in concrete members.

