

UNIVERSITY OF SOUTH AUSTRALIA
SCHOOL OF NATURAL AND BUILT ENVIRONMENT

FIRE TECHNOLOGY 2 – external Examination

November, 2006

Date of examination:

Examiner: **Graham Brown**

General instructions to candidates :

Write your name on the examination booklet.

You must answer all questions.

All questions have marks indicated in brackets e.g. (20 marks)

Lecture notes and text books and Australian Standards are permitted references.

Reading time is 10 minutes before commencing the paper.

Time for examination is 2 hours.

Question 1. (20 marks)

Fighting fires in high rise buildings can cause problems for firefighters. Discuss the equipment which should be provided for fire fighters to fight a fire in a modern building of 15 storeys in effective height and how the fire fighters would use this equipment..

Question 2. (20 marks)

Automatic sprinkler systems are used to control or extinguish fires in buildings. Their success depends on several factors. Discuss these factors and their importance in the design of an effective sprinkler system.

Question3. (20 marks)

Smoke management is an important part of the fire safety systems in a shopping centre incorporating a mall. Discuss the type of smoke control systems that you would recommend for this situation.

Question 4. (20 marks)

An owner has asked for advice on what type of fire detection systems he should install in his new hotel building which contains an atrium space of 6 storeys. Discuss your recommendations.

Question 5. (20 marks)

A building owner wants to avoid having a fire resisting wall around a kitchen in his restaurant but is required to do this by the council. The council is worried about a deep fat fryer in the kitchen. What solution could you suggest to overcome the fears of council?