

SCHOOL OF GEOINFORMATICS PLANNING AND BUILDING

FIRE TECHNOLOGY 1 – External Examination

Date of examination: November 2001
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)

Maximum marks:100

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)

Using appropriate diagrams describe the combustion process for a piece of timber.

Question 2. (25 marks)

Using diagrams describe the various ways that could be used to prevent steel columns from collapsing in a fire.

Question 3. (25 marks)

Discuss the factors which may affect the speed at which people can escape from a building in the event of a fire and describe the effects that each factor might have.

Question 4. (15 marks)

The early fire hazard indices of materials used as finishes in a building can affect the amount of smoke produced and the speed at which fire will spread .

Discuss the factors that you would consider when selecting materials to be installed in a building used for activities for people with disabilities.

Question 5. (15 marks)

Discuss how you might use ordinary building materials to slow down the spread of fire in a two storey hotel with long narrow corridors.