

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

**BUILDING SERVICES – FIRE COMPONENT**

**1<sup>ST</sup> SEMESTER, 1998 EXAMINATION**

**Instructions to Students:**

You must answer **ALL** questions

All questions are of **equal** value (10 marks)

Maximum marks: 50

Lecture notes and text books are permitted references

Time length: 1 hour examination (Fire component)

Lecturer: Graham Brown

**Question 1:**

The process of combustion can be explained by the fire triangle. By the use of this diagram and others, and in your own words, explain what happens when a piece of wood is ignited.

**Question 2:**

The severity of a fire in a building depends on several factors. Explain what these are and how they contribute to the severity of a fire. Illustrate your answer with a diagram.

**Question 3:**

Fire spread within a building can be controlled by dividing the building into compartments. By means of diagrams explain how you compartmentise a six storey building having shops on the ground storey and offices above.

**Question 4:**

By means of diagrams explain how you could make the following members fire resisting:

- 1) a steel column
- 2) a steel truss
- 3) a timber column

**Question 5:**

The effectiveness of an exit system can be influenced by several factors. List these and briefly explain the effect of each one.