2003 Paper 13 Question 10

Introduction to Functional Programming

- (a) Explain the difference between lazy and eager evaluation, illustrating with an example. [5 marks]
- (b) Given the following definitions

```
fun I x = x;
fun K x y = x;
fun S x y z = x z (y z);
```

give the most general type of each of the following five expressions:

- (i) K
- (ii) K I
- (iii) S
- (iv) S (K S)
- (v) SS(KI)

[15 marks]