Databases

(a) Describe the relational model of data. [6 marks]

(b) Explain the following concepts in relational databases:

(i) entity integrity constraint; [1 mark]

(ii) foreign key and how it can specify a referential integrity constraint between two relations; [4 marks]

(iii) semantic integrity constraint. [1 mark]

(c) (i) What is a functional dependency? [1 mark]

(ii) Define Boyce-Codd Normal Form (BCNF). [3 marks]

(iii) Define Third Normal Form (3NF). [3 marks]

(iv) What is the relationship between BCNF and 3NF? [1 mark]