Employee ID	Employee name	StoreID	Store name
OO1	Homer	OO1	Springfield East
OO2	Marge	OO1	Springfield East
OO3	Bart	OO2	Springfield West
OO4	Lisa	OO2	Springfield West
OO5	Margaret	OO3	Springfield West
OO6	Abraham	OO1	Springfield Est

Figure 1.Flat file database

Explain the problems with flat file databases with examples from the one above and explain how they can be overcome. (6 marks)

Employee ID	Employee name	Role	Wage per hr	StoreID
OO1	Homer	Checkout operator	£9.50	OO1
OO2	Marge	Store manager	£50.00	OO1
OO3	Bart	Warehouse manager	£20.00	OO2
OO4	Lisa	Store manager	£50.00	OO2
OO5	Margaret	Marketing	£35.00	OO2
OO6	Abraham	Trolley collector	£7.00	OO1

StoreID	Store name
OO1	Springfield East
OO2	Springfield West

Figure 2. Relational database

Explain how foreign keys are used to link tables using the example of the relational database above. (3 marks)

Explain the risk posed by misconfigured access rights (2 marks)

From the relational database above give an example of: (3 marks)

A primary key	
A record from the employee table	
A field from the employee table	

Employee ID	Employee name	Role	Wage per hr	StoreID
OO1	Homer	Checkout operator	£9.50	OO1
OO2	Marge	Store manager	£50.00	OO1
OO3	Bart	Warehouse manager	£20.00	OO2
OO4	Lisa	Store manager	£50.00	OO2
OO5	Margaret	Marketing	£35.00	OO2
OO6	Abraham	Trolley collector	£7.00	OO1

StoreID	Store name
OO1	Springfield East
OO2	Springfield West

Figure 3copy of fig2

Write a query that displays the employeeid, name and role for workers at store 002 sorted alphabetically by name and then say what would be returned by it. (5 marks)

Write a query that returns the Employee name, role and wage per hr for anyone with manager in their role, sorted by role, then say what would be returned by it. (5 marks)

Employee ID	Employee name	Role	Wage per hr	StoreID
OO1	Homer	Checkout operator	£9.50	OO1
OO2	Marge	Store manager	£50.00	OO1
OO3	Bart	Warehouse manager	£20.00	OO2
OO4	Lisa	Store manager	£50.00	OO2
OO5	Margaret	Marketing	£35.00	OO2
OO6	Abraham	Trolley collector	£7.00	OO1

StoreID	Store name
OO1	Springfield East
OO2	Springfield West

Figure 4. copy of fig2

Write a query that returns the Employee id, name, wage per hr and store name for anyone earning more than £25 per hr, sorted by store name ascending then wage per hr descending, then say what would be returned by it. (5 marks)

Write a query to insert a new store with id 003 and name Shelbyville (2 marks)

Employee ID	Employee name	Role	Wage per hr	StoreID
OO1	Homer	Checkout operator	£9.50	OO1
OO2	Marge	Store manager	£50.00	OO1
OO3	Bart	Warehouse manager	£20.00	OO2
OO4	Lisa	Store manager	£50.00	OO2
OO5	Margaret	Marketing	£35.00	OO2
OO6	Abraham	Trolley collector	£7.00	OO1

StoreID	Store name
OO1	Springfield East
OO2	Springfield West

Figure 5. copy of fig2

Abraham's wage per hr rises to £7.50. Write an update query to correct this in the database. (3 marks)

Homer is fired for gross negligence. Write a query to delete him from the employee table. (2 marks)