

**SURNAME:**

Thomas

12 Pages

FORENAME(S):

Ross

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold on the dotted line and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either read your handwriting or have it typed and the expense of typing is charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

[illegible]

37%

Q1)
a)

ISO

- Fault management ✓
- accounting management ✓
- performance management ✓
- Security management ✓
- access management ?

4

- (Fault) management is a system that is in place to manage faults, while also detecting them it can also help prevent them

1

- (accounting) management is where all account based systems are dealt with, ~~managed and given access~~

- (performance) management is a system where all performance measurements can be analysed.

this way a organization knows whether or not, for example, whether a data centre could hold a big volume of data.

1

- (Security) management is the most important management system as it make sure all security measurement are in place, constantly be monitored.

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- (Access) management is in place to make sure all users on a network have the correct privileges and user access rights.

6/2

Q2

- a)
- 1 - Stacking issues with switches in blocks
 - 2 - cabled incorrectly (UTP) no crossovers either
 - 3 - Duplicate IP address
 - 4 - certain devices are not compatible
 - 5 - no Redundancy.
 - 6 - layer 2 switch for main switch is wrong.

5

B) Network manager has the authority to design the network while managing and analysing it for weakness and vulnerabilities

1/2

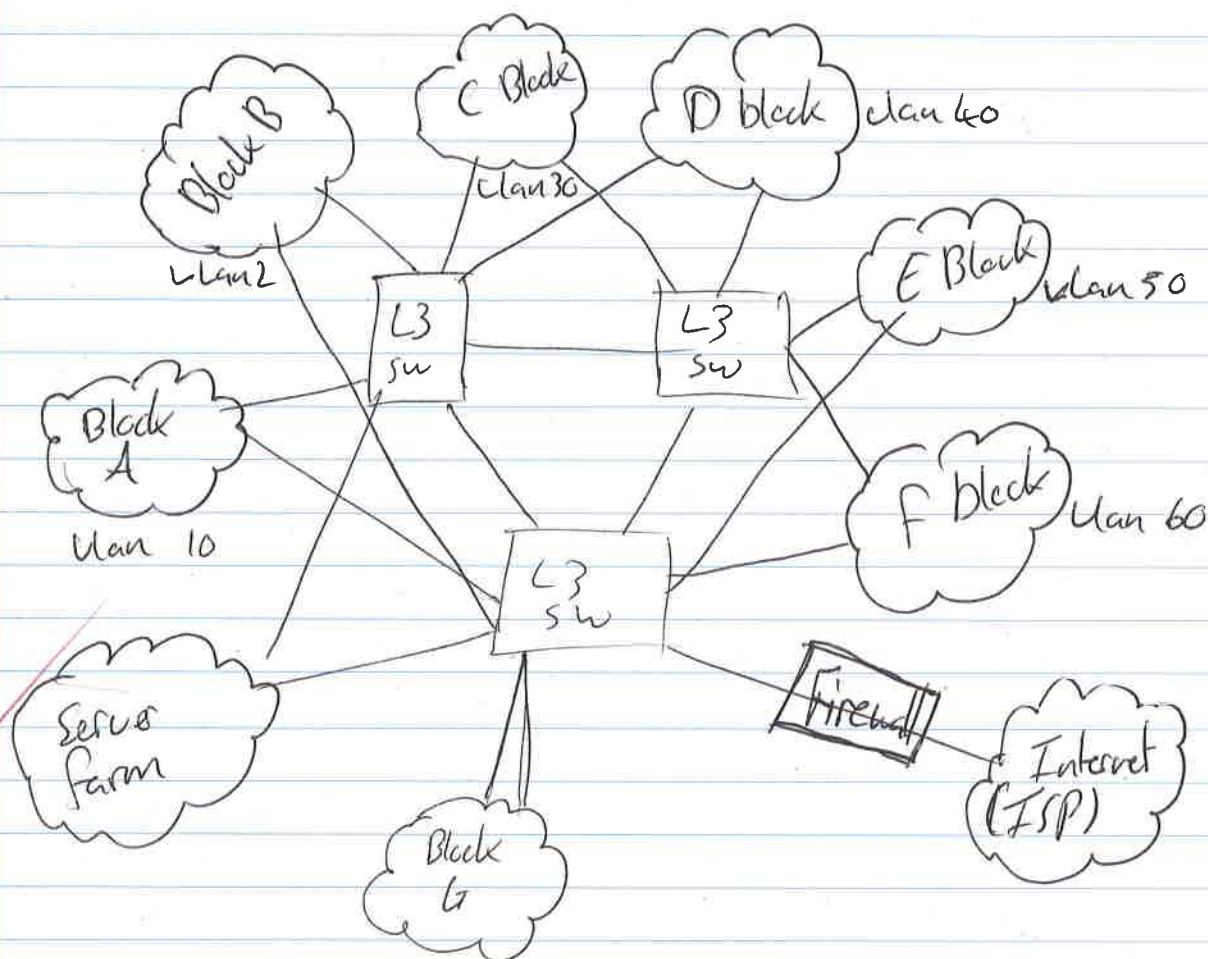
C) Improvements -

- VLANs could be used ~~rather than~~ for each Block.
- Switches could be stacked correctly.
- Redundancy should be given more thought, e.g. Two switches could be used for the Backbone of the network.
- layer 3 switches could be used for the backbone, as it also adds more security and offers faster speeds.

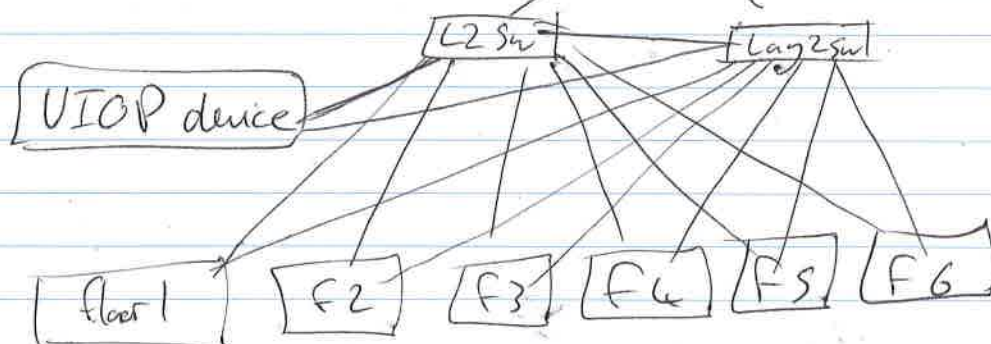
2



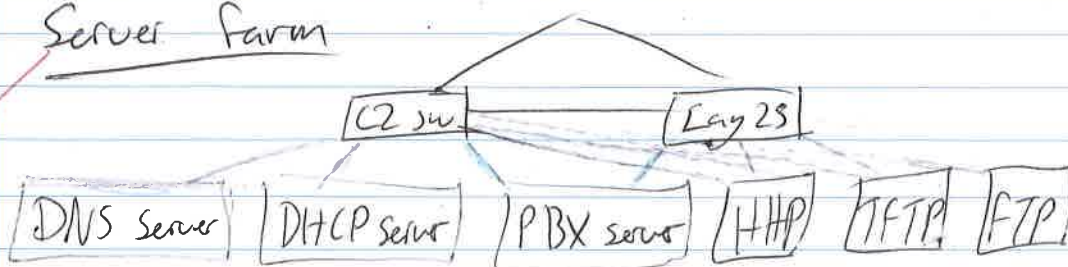
Q2 C) Design



Block G (example of clusters)



Server Farm



03

a) i) Type 1 hypervisor also known as bare metal is a hypervisor that depends on the server's physical hardware to operate.

Type 2 hypervisor also known as hosted is a hypervisor that depends on ~~the server operating system~~. ~~Technically partitioning it e.g. it will depend on the original server operating system.~~

ii) virtual machines are similar to hypervisors in some respects, they are used to simulate a large cluster of machines on a network, ~~while~~ most VM's do this by using either a type 1 or 2 hypervisor.