



12 Pages

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing 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]

(Gweler yr ochr arall am y fersiwn Cymraeg)

FORENAI

7	Nifer y Llyfrau Atebion a gyflwynwyd	
6	Rhif Sedd	
5	Lleoliad yr Arholiad	
4	Dyddiad ac Amser yr Archoliad	
3	Cod y Modwl	
2	Teitl y Papur Arholiad	
1	Rhif Myfyrwr	

(See the other side for English version)

[illegible]

8. Rhaid dychwelyd pob llyfr. Ni chaniate arholi o dan unrhyw amgylchiadau.

3. Rhaid i'r atebion fod mewn llawysgriften ddarlennadwy. Gall yr Arholwyr naill ai anwybyddu sgript annarllenadwy, neu drefnu iddi gael ei theipio a chael yr ymgeisydd i dalu.
4. Ysgrifennwch eich atebion mewn inc.
5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw fras nodiadau yn y llifyr atebion a thynnu llinell drwyddynt.
6. Ni ddylid rhwgo unrhyw ran o'r llifyr hwn; rhaid ei gyflwyno yn gyfan.
7. Os defnyddir mwy nag un llifyr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwylwyr/gwylwyr.

1. Rhowch yr holl wybodaeth y gofynnir a
2. Rhowch eich enw yn y lle a ddarparw

Cyfarwyddiadau i Ymgeiswyr

12 Tüdalen

Llyfr Atebion Arholiadau



Prifysgol Cymru
y Drindod Dewi Sant
University of Wales
Trinity Saint David

Llenwch, plygwrch a seliwrch
(gweler nodyn 2 isod)

CYFENW:

ENW(AU) CYNTAF:

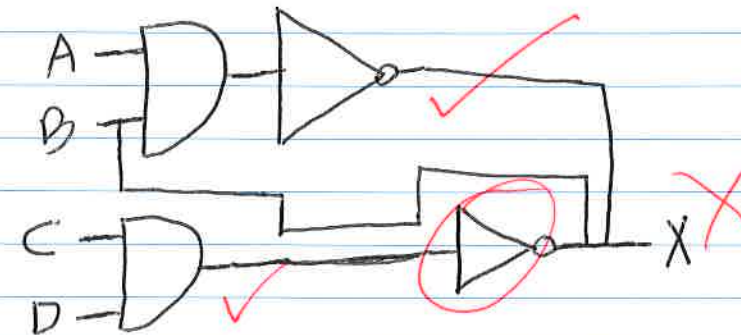
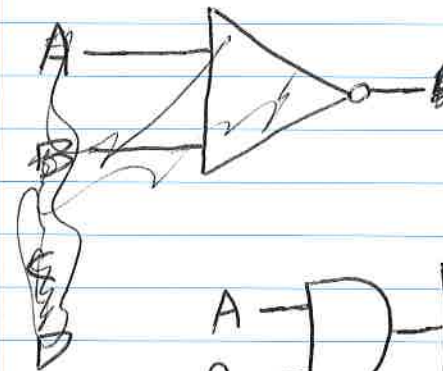
ENW(AU) CYNTAF:

Answer Q Two:

- 1 - RAM $\Rightarrow$ Memory ✓
- 2 - Ethernet Port $\Rightarrow$ Communication device ✓
- 3 - Microphone $\Rightarrow$ Output Device ✗
- 4 - Flash Drive $\Rightarrow$ Storage Device ✓
- 5 - Gamepad $\Rightarrow$ Input Device ✓

Q Four / Answer /

$$X = \overline{A}B + CD + B\overline{C}D$$



4

Q Five

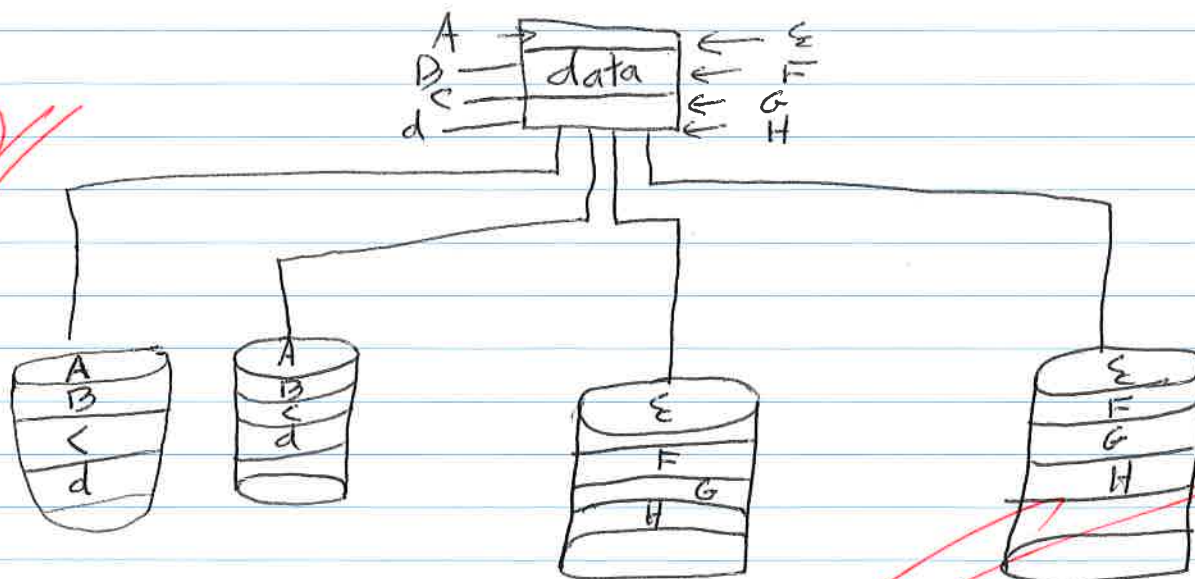
- a. 1- RAID 0
2- RAID 1 ~~X~~

1- The most advantage of RAID is

3 // Data loss prevention. It is very useful for keeping data safely, especially when disc interrupt happens.

2- for doing multiple processes at one time.

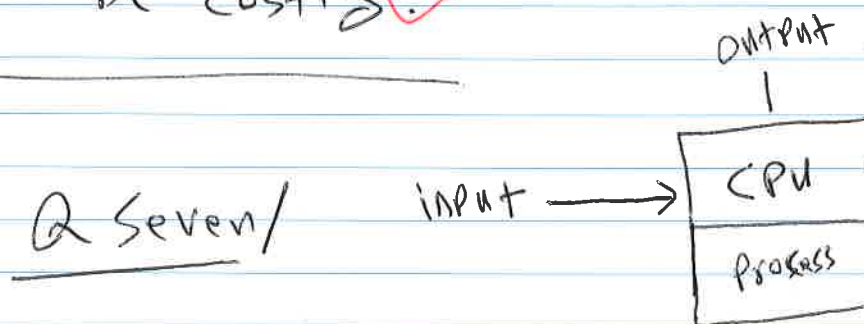
b. RAID 1 is a type of disk memory which keeps data and duplicates them in two different disk blocks, mirroring the data.



C.

One advantage of RAID1 is keeping the data safe by duplicating them.
~~It is very useful~~ ✓

✓ one of disadvantages of RAID1 is cost. RAID1 costs more because needs more storage for data and always should ~~use~~ have empty space, and this makes it to be costly. ✓



- D.
- 1- Van Neumann architecture's advantage is costs less ~~doing multi processors at one time~~, multi input outputs at once ✓
 - 2- It does not need to do processes like:
 ✓ $\Rightarrow \text{input} \Rightarrow \text{process} \Rightarrow \text{output}$, but it can receive multi inputs and processes in one time and this makes it to be more speed. ✓

C.

1- Von Neumann architecture ~~is~~ ~~more~~
~~can't~~ can't do few processes at
 once and this affects its speed.

Q one

a. $(769)_{10}$

$$769 \div 2 = 384.5 = 384 \Rightarrow R 1$$

$$384 \div 2 = 192 \Rightarrow 192 \Rightarrow R 0$$

$$192 \div 2 = 96 \Rightarrow 96 \Rightarrow R 0$$

$$96 \div 2 = 48 \Rightarrow 48 \Rightarrow R 0$$

$$48 \div 2 = 24 \Rightarrow 24 \Rightarrow R 0$$

$$24 \div 2 = 12 \Rightarrow 12 \Rightarrow R 0$$

$$12 \div 2 = 6 \Rightarrow 6 \Rightarrow R 0$$

$$6 \div 2 = 3 \Rightarrow 3 \Rightarrow R 0$$

$$3 \div 2 = 1.5 \Rightarrow 1 \Rightarrow R 1$$

$$1 \div 2 = 0.5 \Rightarrow 0 \Rightarrow R 1$$

$$(769)_{10} = (1100000001)_2$$

$$d. (9A2)_{16} =$$

$$(1001\ 1010\ 0010)_2$$

$$2/$$

$$a. (87)_{10}$$

$$87 \div 8 = 10.875 = 10 \Rightarrow R7$$

$$10 \div 8 = 1.25 = 1 \Rightarrow R2$$

$$1 \div 8 = 0.125 = 0 \Rightarrow R1$$

$$(87)_{10} = (127)_8$$

$$b. (5D9)_{16} = (\cancel{2734})_8 = (2731)_8$$

$$\begin{array}{c} \boxed{0101} \ \boxed{1101} \ \boxed{1001} \\ \underline{ } \\ 2 \quad 7 \quad 3 \quad 1 \end{array} \Rightarrow$$

$$3/ \quad a \quad (1110101001)_2$$

$$\begin{array}{rcl} 1 \times 2^9 & = & 512 \\ 1 \times 2^8 & = & 256 \\ 1 \times 2^7 & \Rightarrow & 128 \\ 0 \times 2^6 & = & 0 \\ 1 \times 2^5 & = & 32 \\ 0 \times 2^4 & = & 0 \\ 1 \times 2^3 & = & 8 \\ 0 \times 2^2 & = & 0 \\ 0 \times 2^1 & = & 0 \\ 1 \times 2^0 & = & 1 \end{array}$$

$$\underline{\quad\quad\quad} +$$

$$(937)_{10}$$

$$b/ \quad (50E)_{16} = (1295)_{10}$$

$$(010100001110)_2$$

$$\begin{array}{rcl} 0 \times 2^{11} & = & 0 \\ 1 \times 2^{10} & = & 1024 \\ 0 \times 2^9 & = & 0 \\ 1 \times 2^8 & = & 256 \\ 0 \times 2^7 & = & 0 \\ 0 \times 2^6 & = & 0 \\ 0 \times 2^5 & = & 0 \\ 0 \times 2^4 & = & 0 \\ 1 \times 2^3 & = & 8 \\ 1 \times 2^2 & = & 4 \\ 1 \times 2^1 & = & 2 \\ 1 \times 2^0 & = & 1 \end{array}$$

$$\underline{\quad\quad\quad}$$

$$(1295)_{10}$$

need to do line 19

$$4/ \quad (4278)_{10}$$

$$(a) \quad 4278 \div 16 = 267 \Rightarrow R6$$

$$267 \div 16 = 16 \Rightarrow R11$$

$$16 \div 16 = 1 \Rightarrow R0$$

$$1 \div 16 = 0.0625 \Rightarrow R1$$

$$(10B6)_{16}$$

$$(b) \quad (670)_8 = (1B8)_{16}$$

$$(110111000)_2$$

$$\begin{array}{ccccccc} 000 & 110 & 111 & 1000 & & & \\ \hline & 1 & B & 8 & & & \end{array}$$