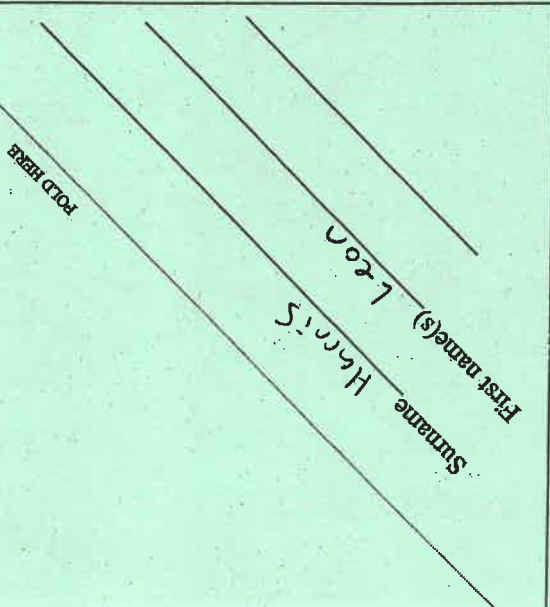
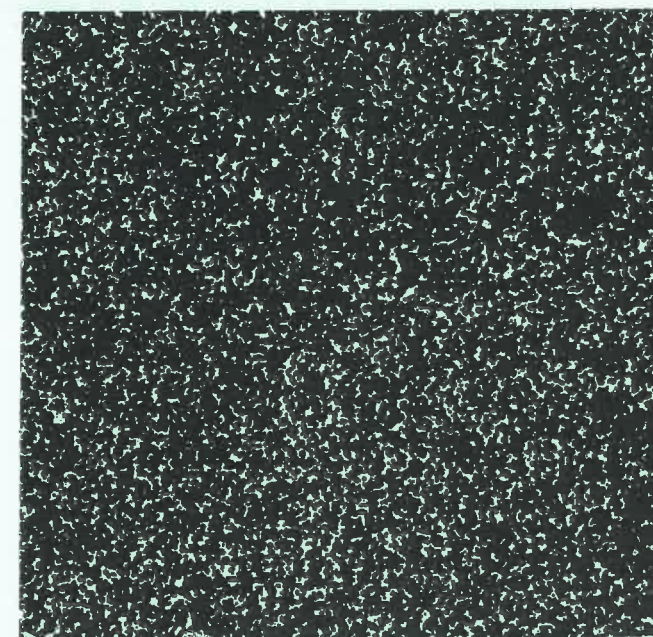
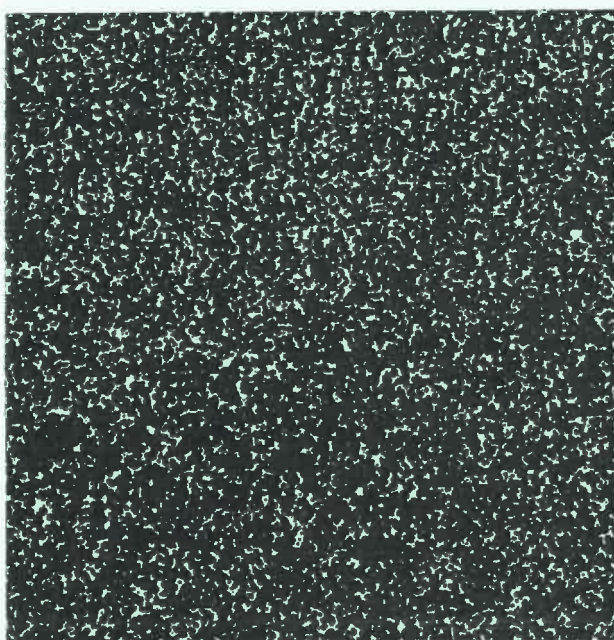






Question 1

a) $231 \geq 110011$

1	1	1	0	0	1	1	1
128	64	32	16	8	4	2	1

251	128	103
64	39	39
32	7	3
16	3	1
8	1	0

!! $98 = 01100010$

128	64	32	16	8	4	2	1
128	64	32	16	8	4	2	1
64	32	16	8	4	2	1	0
32	16	8	4	2	1	0	0
16	8	4	2	1	0	0	0
8	4	2	1	0	0	0	0
4	2	1	0	0	0	0	0
2	1	0	0	0	0	0	0
1	0	0	0	0	0	0	0

B) $11110001 = 241$

128	64	32	16	8	4	2	1
128	64	32	16	8	4	2	1
64	32	16	8	4	2	1	0
32	16	8	4	2	1	0	0
16	8	4	2	1	0	0	0
8	4	2	1	0	0	0	0
4	2	1	0	0	0	0	0
2	1	0	0	0	0	0	0
1	0	0	0	0	0	0	0

!! $01010101 = 85$

128	64	32	16	8	4	2	1
128	64	32	16	8	4	2	1
64	32	16	8	4	2	1	0
32	16	8	4	2	1	0	0
16	8	4	2	1	0	0	0
8	4	2	1	0	0	0	0
4	2	1	0	0	0	0	0
2	1	0	0	0	0	0	0
1	0	0	0	0	0	0	0

C) $7F \geq 01111111$

128	64	32	16	8	4	2	1
128	64	32	16	8	4	2	1
64	32	16	8	4	2	1	0
32	16	8	4	2	1	0	0
16	8	4	2	1	0	0	0
8	4	2	1	0	0	0	0
4	2	1	0	0	0	0	0
2	1	0	0	0	0	0	0
1	0	0	0	0	0	0	0

!! $BD = 10111100$

128	64	32	16	8	4	2	1
128	64	32	16	8	4	2	1
64	32	16	8	4	2	1	0
32	16	8	4	2	1	0	0
16	8	4	2	1	0	0	0
8	4	2	1	0	0	0	0
4	2	1	0	0	0	0	0
2	1	0	0	0	0	0	0
1	0	0	0	0	0	0	0

2

2

7

7

[illegible]

Question 2

~~1) an address bus~~

~~2) a control bus~~

A) An address bus will take the information from the computer and put them in to their respective areas the ROM, the RAM or the I/O input/output area.

Aii) The control bus will take things from the RAM and I/O and put them to the computer but it will also put stuff back

Aiii) The data bus will take all the data from the system and the computer but it will also put some data back into the RAM and I/O areas

B) The control and the data buses are bi-directional as they are the buses that take their respective information but also put stuff back.

C)

A USB allows a person to move data more efficiently from different computers. A USB can be used as another storage device transfer speed (depending on the port used) and it is dependent on the USB used. USB data can be corrupted by corruption if removed in correctly from the PC.

think, the limitations to using a USB is the storage, the transfer speed of using an older PC or USB and that it may corrupt data. A USB can also be lost easily. This means that the data stored in it will also be lost if no back-up were made. There's no way a user can increase the USB storage they will need to buy a bigger USB if needed.

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Question 3

(a) The system board only supports 8 GB of RAM

having more is use less as it won't utilize it

but a new system board the supports their amount of RAM

use a 64-bit OS (if system board allows it)

new CPU possibly as it allow for

more ~~thin~~ applications to smoothly operate

(b)

(i) Virtual memory is ~~what~~ stored in the

SSD and it allows the computer over

step ~~alittle~~ when using apps that need

more to run.

(ii) A page fault is when the OS is

having trouble when loading the applica

application it can't find the right

addresses assigns to correctly load up the app

(iii)

Disk thrashing is when the ~~hard drive~~ ^{CPU}

is trying to run ~~down~~

(!!!)

Disk thrashing is when the hard-drive

is trying to run multiple things at once

and the RAM is unable to support

that amount of data some hard-drive

takes over from where the RAM left off.

(c)

Task manager allows the user to

see what applications are taking up

the most space it also allows the

user to ~~check~~ check ~~is~~ what apps

are ~~using~~ slowing down the PC.

2

4

① I think that the user should use a digital passkey for their link to be secure and safe from unknown attackers. I also think they should have their system locate any unknown systems they should also think of adding a firewall. They should make sure it harder for the potential attacker to get in use a ~~as~~ a 5 way should also look into getting a cloud of network.

② A physical TCP/IP v4 address allows the system to have its own location on the network, it also allows for it to connect to other systems on the said network. However, it also has some limitations they are the system when connected may have restrictions when operating in the network but ~~also~~ have a reserved time on the network.

③ The role of the DHCP is to allocate new systems a unique IP address and to locate any ~~from~~ and

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④ DHCP allocates any new systems to a IP address they also provide security in the network. I think the importance of a DHCP is so that it is easier when adding in new systems but it also allows the system to be protected as well the way it operates it via a switch/router and it works better the system is used or wireless.