

Answers - Part I

1	(3)	7	(4)	13	(3)	19	(2)	25	(2)	31	(3)	37	(3)
2	(2)	8	(3)	14	(2)	20	(1)	26	(2)	32	(2)	38	(2)
3	(4)	9	(3)	15	(2)	21	(4)	27	(3)	33	(2)	39	(4)
4	(ALL)	10	(3)	16	(3)	22	(3)	28	(2)	34	(4)	40	(3)
5	(4)	11	(2 or 3)	17	(2)	23	(4)	29	(3)	35	(2)		
6	(4)	12	(3)	18	(2)	24	(1)	30	(2)	36	(3)		

Answers –part II

1.

a. 562_{oct}

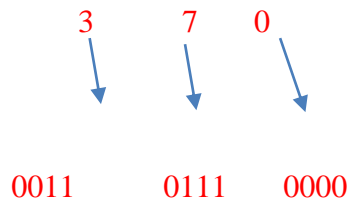
$$8^2 \times 5 + 8^1 \times 6 + 8^0 \times 2$$

$$64 \times 5 + 8 \times 6 + 1 \times 2$$

$$320 + 48 + 2$$

$$370$$

$$\underline{001101110000}$$



b. RAM

Volatile – erased when power is switched off

Stores data temporarily

Called as the working memory

ROM

Non Volatile – not erased when power is switched off

Does not store data temporarily

Used to store BIOS

c. capacity of the storage device = 2400 GB
 capacity in bits = $2400 \times 2^{10} \times 2^{10} \times 2^{10} \times 8$
 $= 2400 \times 2^{10} \times 2^{10} \times 2^{10} \times 2^3$
 $= \underline{2400 \times 2^{33}}$

d. first generation

major hardware technology used is

Vacuum tubes

Punch cards are used for input, output and store data

High power consumption

Expensive

Third generation

major hardware technology used is

ICs

Punch cards are used for input, output and store data

Low power consumption

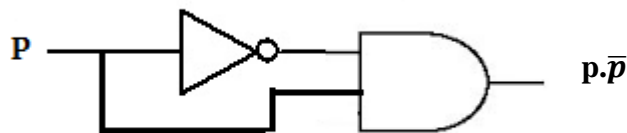
Less expensive

- e. 1. Addiction to surf the net, play computer games, view unsuitable material
 2. Building unsuitable friendship through social media
 3. Getting health problems due to long usage of computers
 4. People without social skills
- f. A universal gate is able to realize all possible combinational logic functions./ A universal gate is a gate which can implement any Boolean function without need to use any other gate type.

Universal gate = NAND or NOR

- g. Keep the font size at about 32 points or more
 Keeping the number of lines per slide between 6-9
 Correct use of grammar and spelling
 Using colours, animation and images effectively

h.



- i. 1. Backup software.
 2. Anti-virus software
 3. Screen savers
- j. 1. a solid state drive(SSD) boots faster,
 2. launches apps faster
 3. runs apps faster,
 4. transfers files faster than a hard disk drive.

1 mark X 2

2.

Data types:

- | | |
|---------------------|----------------------------|
| i. supNum - text | iii. Currentstock - number |
| ii. Initials - text | iv. Unitprice – currency |

- b. primary key fields with corresponding tables
 item - ItemID
 stock - supNum, ItemID
 Supplier – supNum

c. Primary key of the item table is ItemID. When it is included in the stock table it is called as a foreign key. It helps to create a relationship between the item table and the stock table.

d. stock table

e.

s009	Perera	W.T.	No.4, School road, Katugastota
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3. .

a. Any of the following hardware devices.

Barcode scanner Digital still camera

Digital video camera Fingerprint scanner

b. Barcode scanner - scan ID card to register when entering/leaving the lab

Digital video camera - to record who is doing what in the lab

Fingerprint scanner - to identify the users who entered/left the lab

Digital still camera - to produce photos for the ID

c.

i. bus topology

ii. serial data transmission method

iii. A server is the machine which provides services to the client computers in a computer network.

iv. LAN-Local Area Network

4.

a. $= C17^2$

b. Click C17  **1 mark**

Move the mouse pointer to the bottom right hand corner of C18

When you see fill handles drag it up to N18

c. $= 3 * C17$
 $= C17*3$  both are correct

d. $= C18 - C19 + 5$

e. a in B17

y in B20

f. XY scatter

5.

a. WordArt

b. insert  pictures

Select the location of the picture from the insert picture dialog box

Select the picture file → Click Insert

c. Bold ,Italic

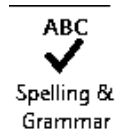
d. D is a hyperlink

Ctrl + K.

e. Use any one of the following.

• Review → click

• Click F7



6. inputs

D = whether the plants are dry or not (dry=1)

L = whether it is dark or not (dark=0)

M = manual switch (switch on=1)

Output = F

a.

D	L	M	F
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	1

b. $F = (D + \bar{L}) + M$

