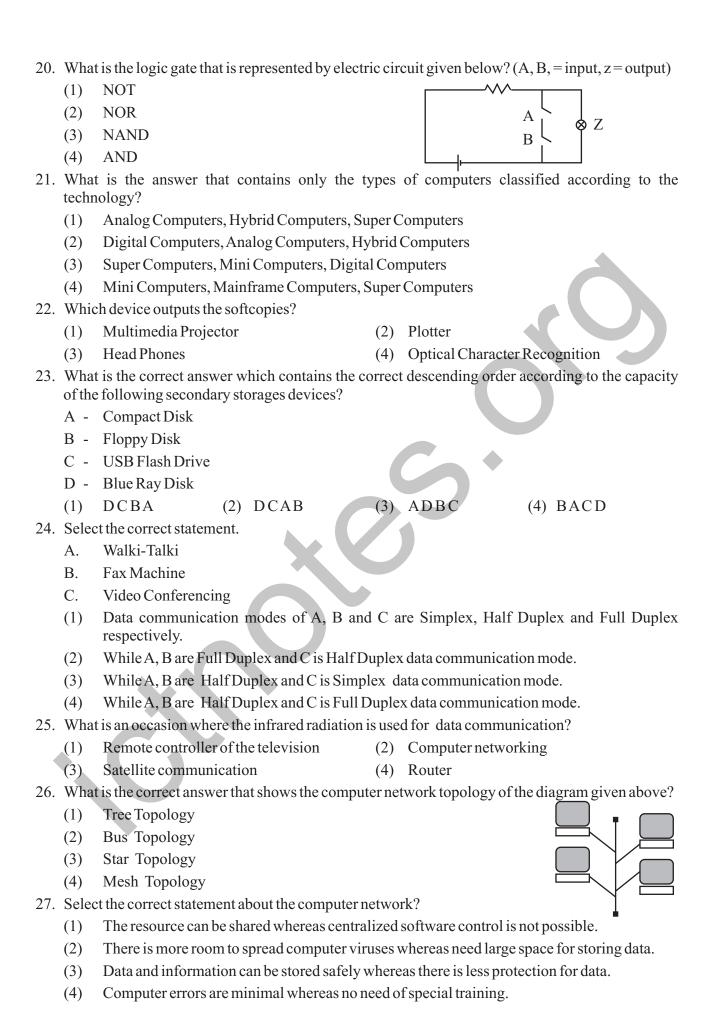


## PROVINCIAL DEPARTMENT OF EDUCATION NORTH WESTERN PROVINCE

## **SECOND TERM TEST - 2018**

Grade 10	information and	a Communica	ation lechnology	- 1 Three hours
Name / Ind	ex No.:			
appropria	the question 1 to 40 pick of			
	oss (A) on the number corres	ponding to your cho	ice in the answer sheet pro	ovided.
01. Select th	ne correct statement from th	e following statem	ents.	
	ata are the unprocessed fac	•		
	formation should always b			
	ata is generated by processi	=		
	and C only (2) A or	· ·	A and B only (4)	All of A, B and C
02. Ane-G	overnment service provide	d for the businesses	by the Government of Si	ri Lanka is,
	orms		Payments of utility bills	
(3) Le	egal system	(4)	Banking Information	
03. What is	the machine that used to rec	cord the activities o	f the brain?	
(1) E	lectrocardiogram Machine	(ECG)		
(2) C	omputerized Axial Tomogr	aphy Machine (CA	T)	
(3) E	lectro-encephalography M	achine (EEG)		
(4) M	lagnetic Resonance Imagin	g Machine (MRI)		
	the machine created by Cl	narles Babbage by	using the concepts of in	put, process, output
and store				
` ′	dding Machine	(2)	Automatic Sequence Co	ontrol Calculator
· /	Iechanical Loom	(4)	Analytical Engine	
	an example for the free and	-	• •	
	facintosh Operating System		Fedora Operating Syste	
	S Windows XP Operating		MS Windows Server Op	
	the correct statement about			
	n operating system is requi		•	t.
	indows 7 is an example for			
	isk partitioning and Disk Fo	· ·	•	•
( )	and B (2) A an	· /	( )	All A, B and C
	are an/the information mai	ntained by an opera	iting system regarding a f	ile?
-	ype of a file			
	ze of a file			
	aved date and time	a.u.a. 4.u.a. 2		
	of the above statement/s is /		A and D ant (4)	A11 A D a 4 C
(1) A	only (2) Bon	$1y \qquad \qquad (3)$	A and B only (4)	All A, B and C.

08.	The	decimal equivalent of	1000101 <sub>two</sub> is,				
	(1)	67 (2)	72	(3)	105	(4)	69
09.	Whic	h of the following does	not included for the	BCD	coding system?		
	(1)	1001 0100 1001		(2)			
	(3)	1100 0101 0110		(4)	0101 1001 0011		
10.	If the	letter A is represented	oy 65 in ASCII codi	ng sy	stem, what is the bi	nary	value that represents
	the le	tter C?					
	(1)	1000010 (2)	100 0001	(3)	100 0101	(4)	100 0011
11.	Ifprio	ce of a book is Rs. 62 an	d price of a pen is 12	the t	otal equals to,		
	(1)	$112_{eight} \tag{2}$	$113_{\rm eight}$	(3)	$4\mathrm{B}_{\mathrm{sixteen}}$	(4)	$3A_{\text{sixteen}}$
12.	Whice device	th of the following give es?	s the ascending orde	er of th	ne data access speed	dofth	ne computer memory
	(1)	Compact Disk, Magne	etic Tapes, USB Flas	sh Dri	ve, Memory Regist	ers	
	(2)	Magnetic Tapes, Hard	Disk, USB Flash Dr	rive, (	Cache Memory		
	(3)	Compact Disk, Hard I	oisk, Magnetic Tape	s, Me	mory Registers		
	(4)	Memory Registers, C	ompact Disk, USB I	Flash	Drive, Cache Mem	ory	
13.	Num	ber of bits in a nibble is;					
	(1)	8 (2)	4	(3)	16	(4)	32
14.	What	is the value of 1011 <sub>two</sub> +	$1001_{\text{two}} + 1111_{\text{two}}$ ?				
	(1)	$001011_{two}$ (2)	$101110_{\text{two}}$	(3)	100011 <sub>two</sub>	(4)	$1100011_{\text{two}}$
15.	What	is the largest number o	f the following num	bers?			
	(1)	$1010101_{\text{two}}$ (2)	$170_{\mathrm{eight}}$	(3)	75	(4)	$27_{\text{sixteen}}$
16.	A Gig	ga Byte is equal to,					
	(1)	$2^{10}$ KB (2)	2 <sup>20</sup> byte	(3)	2 <sup>20</sup> KB	(4)	$2^{30} MB$
	Answ	ver the questions on 17 t	o 19 using the logic	circu	it given below.		
				_			
				вЪ-	—z		
		X D					
		DV	C				
		у					
17.		th answer gives the corr			=	-	y?
	(1)	AND, NOT, OR, NOT		\ /	NOT, OR, NOR,		
	(3)	OR, NOT, AND, NOR		` ′	NAND, OR, NO	-	D
18.		is the Boolean logic ex	pression of the outp		=	?	
	(1)	[(x'+y')+(x'.y)]'			[(x'.y')+(x'+y)]'		
	(3)	x'+y+x'.y'		` ′	(x'+y')+(x'.y)'		
19.		elationship of the input	and the output of the	_	e circuit correctly re	_	ented in?
	(1)	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	XYZ	(3)	XYZ	(4)	XYZ
		0 0 0	0 0 1		0 0 1		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
		0 1 1	0 1 1		0 1 0		0 1 0
		1 0 1	1 0 1		1 0 0		1 0 0
		1 1 1	1 1 0		1 1 1		1 1 1



28.	What	t is the most suita	able input device for i	markıng mul	ttiple Choice Quest	nons answer sh	eet?
	(1)	Optical Mark F	Recognition	(2)	Optical Character	r Recognition	
	(3)	Magnetic Ink (	Character Reader	(4)	Flat Bed Scanner		
29.		e word processi ware from them	ing software is below?	w. What is t	the example for the	ie Free and Op	en Source
	(1)	Word Perfect		(2)	Microsoft Office	Word	
	(3)	Libre Office W	/riter	(4)	Frame Maker		
30.		1	ere the number of pag d using word process		2 2	d; zooming can	ı be viewed
	(1)	Status Bar		(2)	Scroll Bar		
	(3)	Title Bar		(4)	Quick Access Too	ol Bar	
31.	Some	e steps of selecti	ng items in word proc	essing softw	vare are given belo	w.	
	A -	Double clickin	ng the mouse on a wor	d that word o	can be selected.		
	В -	Mouse should	be clicked three times	s on the para	graph to select a pa	ragraph in a do	cument
	C -	Whole docume	ent can be selected by	pressing Ct	rl + A on the keyboa	ard.	
	Whic	ch of the above s	tatement/s is/ are true	?			
	(1)	A and B Only		(2)	A and C Only		
	(3)	B and C Only		(4)	All A, B and C		
32.		ch answer gives mn A in the table	the labels of correct egiven below?	t order of co	olumn B with app	ropriate short	cut keys in
			A		В		
	(1)	ACBD	Ctrl+N	A - Cut	letters/objects in	a document	
	(2)	BCAD	Ctrl+H	B - Sav	ve the document		
	(3)	CDAB	Ctrl+X	C - Get	a new document		
	(4)	DCAB	Ctrl+S	D - Rep	place words		
33.	What	t is the short cut l	key for checking spel	ling and grai	mmer?		
	(1)	F1	(2) F5	(3)	F7	(4) F10	
34.	What	t is the symbol us	se for the tool 'Drop C	Cap' from the	symbols given bel	.ow?	
	(1)	Aa	(2)	(3)	A	(4) <u>A</u>	
35.	Cons	ider the Compon	nents of electronic sp	readsheet so	ftware given in the	following tabl	es.
	С	omponent		Descript	ion		
		ormulae Bar	A. Displays the cel				
	2. In	set Function	B. Shows active ce				
	2 NI	ome Roy	C. Onone dialog be	ov to orosto	the formulae		

Which answer gives appropriate description of the second column relevant to the components in the first column respectively?

D. Displays the contents of a cell to view the formullae

(1) DCBA

4. Active Cell

(2) CDBA

(3) DCAB

(4) CDAB

## Grade 10 Information and Communication Technology - I

- 36. What is the key combination that can be used to move the bottom right cell of the work sheet in electronic spreadsheet software.
  - (1) Ctrl + Home

(2) Ctrl + Page Up

(3) Ctrl + Down

(4) Ctrl + End

- 37. What will be the value shown in the cell after using the formulae =  $2^3/(4-2)^3$ 0 in a cell of an electronic spread sheet software?
  - (1) 0
- (2) 36
- (3) 0.44
- (4) -16
- 38. If the function = COUNT (A1: A9) has been entered in a cell A10 of the spread sheet as given in the figure, what is the answer that can be seen in the A10 cell?
  - (1) 9
  - (2) 8
  - (3) 7
  - (4) 5

◢	A	В
1	25	
2	saman	
3	69	
5	10-A	
	85	
6		
7	В7	
8	78	
9	52	
10		

- 39. What is the tool that can be used to get the word "Total Marks" in a D1 cell as two rows in a single cell as shown in the part of spread sheet given below?
  - (1) Wrap Text
  - (2) Merge Cells
  - (3) Shrink to fit
  - (4) Orientation

	A	В	С	D	Е
1	Name	Mark 1	Marks 2	Total Marks	
2	Wasana	78	85	163	
3	Janidu	69	74	143	
4	Dineth	72	76	148	
5					

- 40. What is the Robot which acquired the world first citizenship?
  - (1) Asimo
- (2) Petman
- (3) Nao
- (4) Sophia



# PROVINCIAL DEPARTMENT OF EDUCATION NORTH WESTERN PROVINCE SECOND TERM TEST - 2018

## Grade 10 Information and Communication Technology - II Three hours

#### Note:

- Answer five questions only including the first question and four others.
- First question carries 20 marks and each of the other questions carries 10 marks.

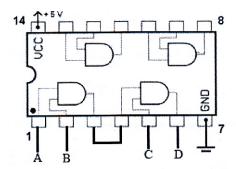
#### 01. Give short and **exact** answers.

- (i) Select only the information from the following and write the lables of them.
  - (A) Annual rainfall values of the previous fifty years in Sri Lanka.
  - (B) Annual rainfall of Sri Lanka in the year 2018
  - (C) It rains to Sri Lanka.
  - (D) Monthly sales values of a shop for previous 12 months.
  - (E) Assessment result report of a student.
- (ii) Give three specific advantages for a customer of online shopping.
- (iii) Name the generation of the computer in the computer evolution which uses the Key Board and the Mouse.
- (iv) Consider the table given below containing the devices that gives computer hard copies and match appropriately from the items in the first column with the items in the second column and write only the pairs of labels in your answer sheet.

Devices that gives computer hard copies	Specific characteristic of it
a) Dot Matrix Printer	e) Dry ink powder is used
b) Laser Printer	f) Liquid ink is used
c) Bubble Jet Printer	g) Having Noise
d) Thermal Printer	h) Used in the Automatic Teller Machines

- (v) Name the most appropriate guided media for the following occasions.
  - (a) Connecting computers of a local area network inside a room.
  - (b) CCTV Cables
  - (c) Modern telecommunication cables
  - (d) Short distance data transmission across an area with electromagnetic interference.
- (vi) If the sky blue colour is made by mixing Red, Green and Blue colours 50, 153 and 204 respectively (#RGB) represent the sky blue colour using hexadecimal digits.

(vii) Draw the truth table to show all possible outputs 'D' of the inputs A, B and C in the integrated circuit given below.

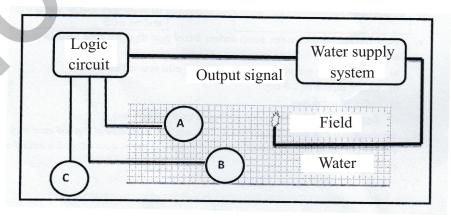


- (viii)Some operating system requires disk defragmentation and some are not required. Do you agree to this statement? Give reasons for your answers.
- (ix) Write the steps of using the saurus in a word processing software.
- (x) Given below is a part of a spreadsheet which has been used to analyze the marks of students. (Analyze marks of one student has been taken using a formula and it has been copied using fill handle) Write the formula using a function which can be used to get the average of Suraj as given in the spreadsheet.

	A	В	С	D	E	F
1	Name		Subjec	ct and Ma	irks	
2		Maths	Science	ICT	Average marks	
3	Nanawathi	89	78	56	74.33	
4	Indiraj	85	88	61	78.00	
5	Ipsal	ABSENT	ABSENT	95	31.67	
6	Suraj	45	56	ABSENT	33.67	
7						·

02. A sketch of an automated water system of a green house is given below. Answer the questions about it.

A and B are a moisture sensor and a temperature sensor respectively and C is a manual switch. Signals are given to the water supply system from the Logic circuit according to the input signals from the A, B and C sensors to open the water supply outlet to the field. (If the output signal from the logic circuit = 1, it opens the water outlet and if it is zero it does not open the water supply. (Moist soil = 1, high temperature=1, Manual switch open (on)=1)

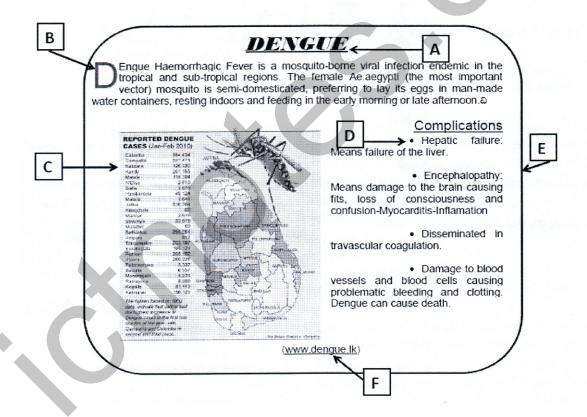


Water supply should be activated only if the soil is less moist (dry) and high temperature or manual switch is opened (on)

(i) Complete the table given below to show the relationship between all possible inputs and outputs of the above logic circuit in the water system.

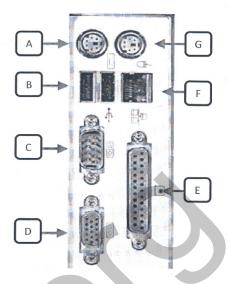
A	В	С	Output

- (ii) Draw a logic circuit to get the output of above part (i)
- (iii) State the Boolean logic expression of the output for the above logic circuit in terms of inputs.
- 03. A word processing document is given below. Answer the given questions considering the document.



- (i) Write four tools which have been used to format the title shown in the label A.
- (ii) What are the tools used to format or create the things displayed in B, C, D and E?
- (iii) If the above document has been created using the concept of cloud computing, write two advantages of it.
- (iv) Write two word processing software, which are used to create word processing documents by using the cloud computing concept.

- 04. (i) Name three types of primary memory and state the basic function of each part.
  - (ii) A diagram of computer ports is given below. Name the ports labeled as A, B, C, D, E and F and mention one device for each of the ports that can connected.



- (iii) What is the type of computer network, created by connecting all divisional secretariat offices in Sri Lanka?
- 05. Sayuri is a residential student and she notes down the details of her receipt and payment in a spreadsheet. The spreadsheet of her receipts and payments of this term is given below.

4	A	В	С	D	Е	F		
1		Receipts and Payments Report (Sayuri - Second Term)						
2								
3	Month	Cash Receipts	Accomadation Expenses	Travelling Expenses	Other Expenses	Total Expenses		
4	May	Rs. 7,800.00	Rs. 5,750.00	Rs. 750.00	Rs. 325.00	Rs. 6,825.00		
5	June	Rs. 7,600.00	Rs. 6,000.00	Rs. 1,100.00	Rs. 475.00	Rs. 7,575.00		
6	July	Rs. 7,750.00	Rs. 6,250.00	Rs. 1,325.00	Rs. 400.00	Rs. 7,975.00		
7	Total expens	Total expenses in the term Rs. 22,375.00						
8	Maximum total expenses done in a month Rs. 7,975.00							
9	Total cash receipt in a term Rs. 23,150.00							
10	Cash in hand	Cash in hand at the end of the term Rs. 775.00						
11	Percentage o	f the cash in h	and from the	total amount o	of cash recipt	3.3		

- (i) State the formula that should be in F4 cell to calculate her total expenses of May, using the cell references only.
- (ii) What is the function that should be in F8 cell to calculate the maximum total expenses in the second term?
- (iii) Write the formula that should be in F9 cell to find the total cash receipts of this term by using the functions.
- (iv) What is the formula that should be in F10 cell to calculate the cash in hand at the end of the term?
- (v) What is the formula that should be in F11 cell to find the percentage of the cach in hand from the total cash receipts?
  - (Percentage of cash in hand = (cash in hand/Total cash receipts\*100)

- 06. (i) State the 8GB capacity in bits. (Give the answers in the power of two)
  - (ii) Convert 45<sub>eight</sub> into hexadecimal equivalent. Stops should be stated.
  - (iii) State the BCD equivalent for the number 954.
  - (iv) Price of a bag is Rs. 425 and price of a basket is Rs. 250.
    - (a) State the price of the bag in binary number system.
    - (b) State the price of the basket in hexadecimal number system.
    - (c) State the total cost of purchasing the bag and a basket in the octal number system.
- 07. (i) Robots made from modern technology are used in factories today. Write three advantages of using robots instead of using human labor force..
  - (a) Business communities are able to do their business activities very conveniently with the help of video conferencing technology. Write two advantages of the Business communities from video conferencing.
  - Fill in the blanks.
    is the word's first mathematical machine invented by Blaise pascal.
    Graphical User Interface Operating Systems were used in \_\_\_\_\_\_ of computers.
    Operating system is an example for the \_\_\_\_\_\_ software.
    (Application, Ada Augusta Lovelace, Mark I, Adding Machine, Fourth Generation,
  - (iii) Write a difference between a Command Line Interface Operating System and a Graphical User Interface Operating System.
  - (iv) State the software relevant for the file types that belongs to the file extensions given below.

Third Generation, System, Marie Curie, Alan Turing)

- a. odt
- b. xlsx
- c. pptx
- d. txt

## **Grade 10** Second First Term Test 2018 Information and Communication Technology (1/3)

### Answer Sheet - Paper I

01. (3) 02. (4) 03. (3) 04. (4) 05. (2) 06. (2) 07. (4) 08. (4) 09. (3) 10.	(4)
---	-----

#### Paper - II

- (01) (i) B, E (2 marks)
  - (ii) Shopping can be done all over the world
    - More selection opportunities
    - Able to see things and order at one's convenient place
    - Moe shopping opportunities in less time period/less time consuming
    - Ability to do online payments (Two marks for three correct answers and one mark for answers less than two)
  - (iii) Third generation (02 marks)
  - (iv) A-g B-e C-f D-h (02 marks)
  - (v) A Twisted Pair / (UTP)/STP
- B Coaxial Cable

C - Optical fibres

- D Coaxial cable or Shielded Twisted pair
- (0.5 marks for each correct answer and total of Two marks)
- (vi) R = 32, G = 99, B = CC or #3299CC (Two marks for three correct answers and one mark for answers less than two)

(vii)	Α	В	С	D
	0	0	0	0
	0	0	1	0
	0	1	0	0
	0	1	1	0
	1	0	0	0
	1	0	1	0
	1	1	0	0
	1	_1	1	1

- (viii) Yes, agreed to the statement Linux operating system makes sure that ample space is left between the saved files for further extensions. (Two marks)
- (ix) Select the relevant word

Select Review

Select Thesaurus

Select the suitable word (02m.)

(x) = SUM(B3:D3)/3 = SUM(B3,C3,D3)/3 = (SUM(B3,C3)+D3)/3 = (SUM(C3,D3)+B3)/3= (SUM(B3,D3)+C3)/3 = (SUM(B3)+C3+D3)/3 like answer (Two marks)

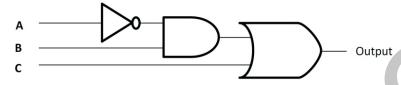
#### **Answer Sheet**

(02) (i)

Α	В	С	Output
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

For Correct truth table(Three marks)

(ii) For correct circuit (Four marks)



- (iii)  $\overline{\mathbf{A}}.\mathbf{B}.\mathbf{C}$  (Three marks)
- (03) (i) Underline Italic Bold Font size Centre (Two marks for four facts)
  - (ii) B Drop Capital C Insert Picture / size / colour / text wrap
    - D-Bullet List E- shape/boarder (One mark for each correct answer and total of four marks)
  - (iii) Less expenses for software
    - No maintenance problems
    - Updated software can be used
    - Efficiency is higher
    - Less use of hard disk space

(Two marks for two points)

(iv) Google docs/Office 365

(Like any of the correct two software-two marks)

(04) (i) Cache memory – Temporary hold the data frequently used by the CPU

Read only memory – Storing a BIOS program which is required for booting up the computer

Random Access memory – Temporary hold the data required for CPU functions

(For three answers three marks)

- (ii) A-Keyboard or PS/2 B-USB port C-Serial port D-VGA Port E-Parallel port (Five marks for five answers)
- (iii) WAN (Wide area Network) (One mark)

(05) (i) =C4+D4+E4=SUM(C4,D4,E4) or =SUM(C4:E4) (Two marks)

(ii)  $= \max(f4:f6).= MAX(F4,F5,F6)$  (Two marks)

(iii) = SUM(F4,F5,F6) or = SUM(.F4:F6) (Two marks)

(iv) = F9-F7 (Two marks)

(v) =F10/F9\*100 or =F10\*100/F9 or =F10/F9% (Two marks)

## **Grade 10** Second First Term Test 2018 Information and Communication Technology (3/3)

#### **Answer Sheet**

(06) (i)  $2_{10}X 2_{10}X 2_{10}X 2_3X 2_3 = 2_{36}$ 

(Two marks)

(ii)  $1 \times 5 = 5$ 

 $4 \times 8 = 32$ 

(Two marks)

5 + 32 = 37

(iii)  $954_{10} = 100101010100$ BCD.

(Two marks)

(iv) a)  $425_{10} = 110101001_2$ 

(Two marks)

b) FAsixteen

(Two marks)

c) 1243 eight

(Two marks)

(07) (i) Ability to work continuously for 24 hours

Not tired

High Efficiency

High Accuracy

Cleanliness (Two marks for three correct answers)

(ii) Making business conferences among people in difference locations.

No special places required for conferences

Saving time for transportation (Two marks for two correct answers)

(iii) 1 Adding machine

2. Ada Augusta Lovelace

3. Fourth generation

4. System (0.5 marks for each correct answer and total of two marks)

(1V)	Command Line Interface	<b>Graphical User Interface</b>
	Commands should be always given	Commands can be selected
	Lots of commands should be in mined	Commands no need to be in mind
	Mouse cannot be used	Mouse can be used
	Cannot use WIMP	WIMP can be used

(Two marks for one correct answer)

(v) .odt – Liber Office writer

.xlsx-Microsoft Office Excel

.pptx – Microsoft Office Power point

txt - Text editor / Not pad

(0.5 marks for each correct answer and total of two marks)