இரண்டாம் தவணைப் பரீட்சை - 2019
Second Term Examination - 2019

| தகவல் தொடர்பாடல் தொழினுட்பவியல் I, II
Information & Communication Technology I, II | **80** | **E** | **I, II** | இரண்டு மணித்தியாலம்
Two Hours |

Grade 09 | **Information & Communication Technology** | **Index No :**..........................

Part - I

 * **Answer all the questions on this paper itself.**
 * **In each question 1 to 20, pick one of the alternatives (1), (2), (3), (4) which is correct or most appropriate.**

1. Which of the following is **not** a non-portable computer?
   (1) Server computer
   (2) Desktop computer
   (3) All-in-one computer
   (4) Laptop computer

2. Microphone is an example for?
   (1) Process
   (2) Input
   (3) Output
   (4) Storage

3. Which of the following unit is used to measure the processor's speed?
   (1) GB
   (2) MB
   (3) Mb
   (4) GHz

4. Which of the following is **not** a processor manufacturing company?
   (1) Apple
   (2) Intel
   (3) Microsoft
   (4) AMD

5. Which of the following is **not** a type of the monitor?
   (1) CRT
   (2) USB
   (3) LCD
   (4) LED

6. Which of the following is an example for monitor port?
   (1) DVI
   (2) USB
   (3) RJ45
   (4) PS/2

7. Which of the following device can't connect to USB port?
   (1) Web Camera
   (2) Barcode Reader
   (3) Digital Camera
   (4) Multimedia Projector

8. Which is equivalent to 153_{10}
   (1) 10011001_2
   (2) 10010010_2
   (3) 11111010_2
   (4) 11101010_2

9. Which of the following decimal number is equivalent to 111111011_2?
   (1) 253
   (2) 251
   (3) 507
   (4) 499

10. Which of the following is **not** a non-technical feature of a computer?
    (1) Processor speed
    (2) Computer price
    (3) Screen size
    (4) Hard disk capacity

11. In the spread sheet, the name of the column is always found …………………………..
  (1) only in digits   (2) only in English letters
  (3) only in digits or letters   (4) Can't say exactly.

12. In electronic spreadsheets [symbol] symbol is used for
  (1) Bold   (2) Underline
  (3) Fill color   (4) Borders

13. What symbol is used for multiplication in an electronic spreadsheet?
  (1) =   (2) +   (3) *   (4) x

14. Which function is used to calculate the total amount of the specified values in an electronic spreadsheet?
  (1) Sum   (2) Average   (3) Max   (4) Min

15. Which of the following type of chart is **not** suitable to show the mathematics and science marks of 20 students in grade nine in the same chart?
  (1)   (2)   (3)   (4)

  Line   Column   Pie   Bar

16. Which of the following is **not** a step of the problem analysis?
  (1) Input   (2) Process   (3) Output   (4) Storage

17. Which of the following is not a basic control structure used in flowchart?
  (1) Random   (2) Sequence
  (3) Selection   (4) Repetition

18. What is the meaning of [rectangle] symbol used in flowchart?

  (1) Start   (2) Input
  (3) Process   (4) Direction of data flow

19. What is the meaning of [diamond with arrow] symbol used in flowchart?
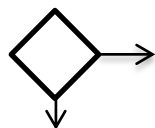
  (1) Start   (2) Output   (3) Process   (4) Decision

20. Which of the following image shows the correct position of the hand when using the mouse?
  (1)   (2)   (3)   (4)
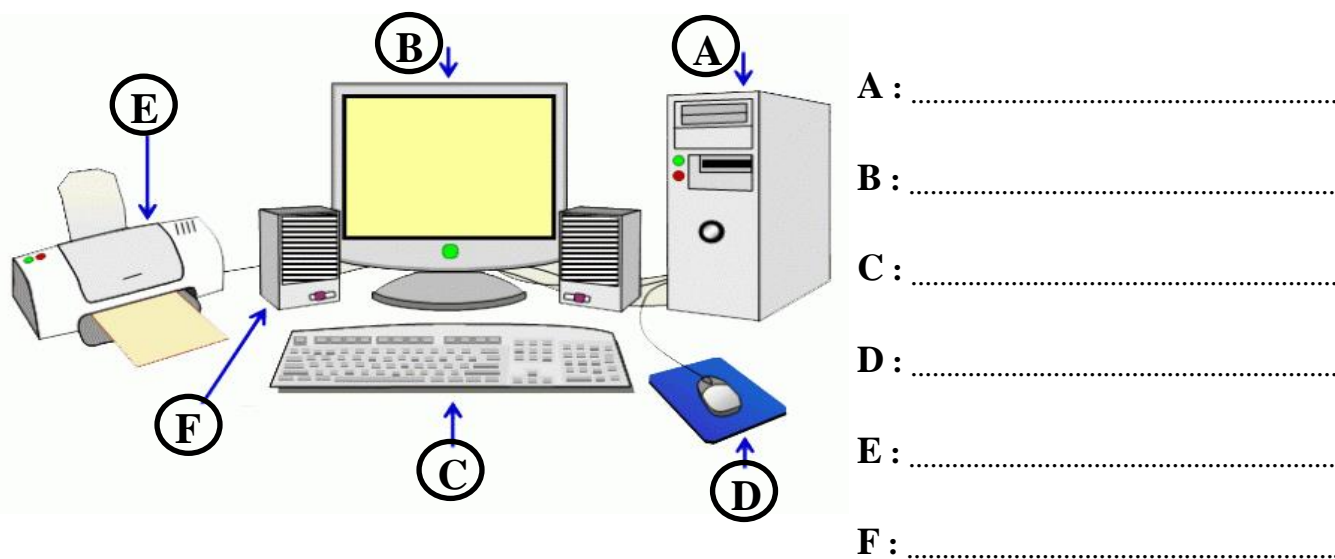
(20 x 2 = 40 marks)

Part - II

* **Answer three (03) questions only, including the first question and two others.**
* **First question carries 20 marks and each of the other questions carries 20 marks.**

1.

(i) Write the names of the parts of the computer devices shown in the following figure.

A : ....

B : ....

C : ....

D : ....

E : ....

F : ....

(6 x 0.5 = 03 marks)

(ii) Write the appropriate devices in the appropriate column of the classification table.
{ Monitor, Keyboard, Hard disk, Scanner, Router, Speaker, CD, Switch, Web camera, Multimedia projector }

Input devices	Output devices	Storage devices	Communication devices

(10 x 0.5 = 05 marks)

(iii) Write down non-technical specification requirements to consider when purchasing a computer.

a) ....

b) ....

c) ....

d) ....

(4 x 0.5 = 02 marks)

(iv) Give the number of cores in the following type of central processing units.

Dual Core : .... Quad Core : .... **(2 x 0.5 = 01 mark)**

(v) Write the default number of worksheets in an electronic spreadsheet?

....

(01 mark)

(vi)   Write the shortcut keys to execute the following tasks.

Save: ....   Cut: ....

Paste: ....   Undo: ....

(4 x 0.5 = 02 marks)

(vii)   Write the basic control structures used in algorithm?

a)   ....

b)   ....

c)   ....

(01 mark)

(viii)   Write the following scratch array name and its number of elements?

Name of the array : ....

Number of elements : ....

(2 x 0.5 = 01 mark)

(ix)   Write the names of the following devices from the list?
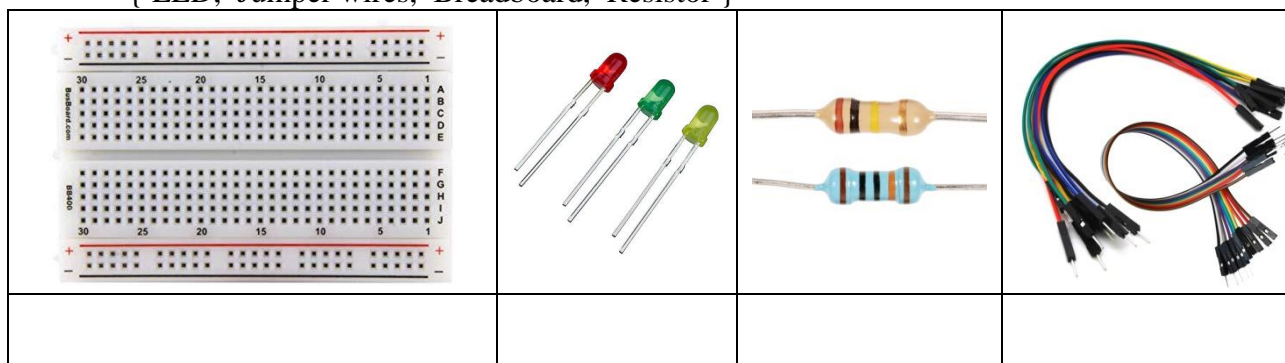   { PIR Sensor, Micro:bit, Ultrasonic wave Sensor, Arduino UNO }
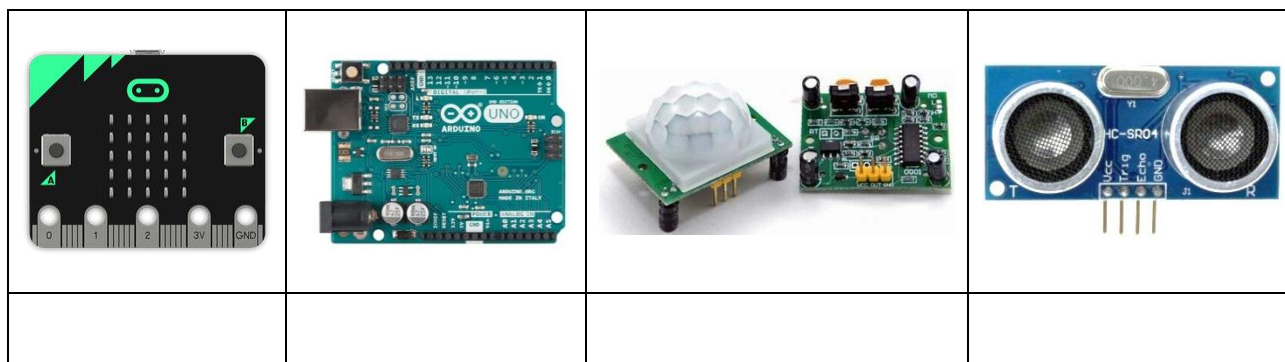
(4 x 0.5 = 02 marks)

(x)   Write the names of the following components from the list that is connected to the microcontroller?

   { LED, Jumper wires, Breadboard, Resistor }

(4 x 0.5 = 02 marks)

2.

a) The following figure shows the characteristics of a computer. Use this to answer the questions below.

(i) Write the name of the manufacturer of the central processing unit in the particular computer.

....

(ii) Write the type of the CPU in the particular computer.

....

(iii) Write the clock speed of the CPU in the particular computer.

....

(iv) Write the capacity of the RAM in the particular computer.

....

(4 x 2 = 08 marks)

b) The advertisement shown is a specification statement issued by a sales company regarding Computer A and Computer B. Complete the table below as appropriate.

Computer (A)	Computer (B)

HP 250 G5
: HP 250 G5
: 6th Generation Intel® Core™ i3 -6006U
: 4 GB DDR3L-1600 SDRAM
: 500 GB SATA
: DVD+/-RW SuperMulti DL
: Wifi/CR/BT
: 15.6" LED HD Display
: Intel® HD Graphics
: FREE DOS
: Yes
•» Warranty:1YEAR
•» Price **52,000.00**
•» FREE- BAG, MOUSE, NORTON ANTIVIRUS

HP 7ᵗʰ Gen PRODESK 400 G4 MT DESKTOP
Core i5-7500 6M Cache 3.40 Ghz
INTEL H270 CHIPSET
8GB DDR4 2133 MHz
1TB 7200 rpm SATA 6Gb/s
Intel Integrated Graphics
DVD+/-RW Drive
Free DOS
HP 19 inch(18.5) LED MONITOR
3 Years Warranty
Rs.87,000.00

	Specification	Computer (A)	Computer (B)
(i)	**Processor**	…………………...…………..	…………………………...…..
(ii)	**Capacity of hard disk**	…………………..………...…..	……………….....………...…..
(iii)	**Capacity of RAM**	……………………..……...…..	………………………...……...
(iv)	**Size of the monitor**	………………...…………...…..	…………………...…………...
(v)	**Price of the computer**	…………………..……….....…..	…………………...………...…..
(vi)	**Warranty period**	…………………..………...…..	…………………..………...…..

(12 x 1 = 12 marks)

3.

a) In the spreadsheet below, write down the answers you get when doing calculations using formulas found in the table.

	A	B	C	D	E
1	9	5	8	2	
2	6	4	3	7	
3	1	5	2	6	
4					

	Formula	**Answer**
(i)	=A1+B1	………………………………………………..
(ii)	=D1+D2+D3	………………………………………………..
(iii)	=C2-B3+A2	………………………………………………..
(vi)	=B1*D3-A1	………………………………………………..
(v)	=A1/C2+B2*A1	………………………………………………..
(vi)	=C1/C3*B2	………………………………………………..
(vii)	=A3+E3-C1*B4	………………………………………………..
(viii)	=A1*B2*C3*D4	………………………………………………..

(8 x 1 = 08 marks)

b) The following spreadsheet contains information on the marks obtained by the Grade 9A students in the first term of the school.

	A	B	C	D	E	F	G	H	I
1					MarkSheet 2018				
2	No	Name	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Total	Average
3	1	Kasun	56	45	24	78	89	292	58.4
4	2	Seetha	ab	45	ab	98	87	230	76.667
5	3	Kanthi	ab	ab	78	59	87	224	74.667
6	4	Gayani	89	76	76	76	76	393	78.6
7	5	Deepal	78	77	67	96	ab	318	79.5
8	6	Naseem	67	ab	ab	56	69	192	64
9	7	Thanuka	56	45	24	78	89	292	58.4
10	8	Bimlaka	ab	67	23	56	ab	146	48.667
11	9	Thiwanga	54	65	78	65	ab	262	65.5
12	10	Pradeepa	56	45	24	78	ab	203	50.75
13									
14	Maximum Marks		89	77	78	98	89		
15	Minimum Marks		54	45	23	56	69		
16	No of Present Students		7	8	8	10	6		
17	No of Students in class		10	10	10	10	10		
18									

(i) Write a spreadsheet function to be written in column **H3** to calculate the total marks earned by a student named **Kasun**?

....

(ii) Write a spreadsheet function to be written in column **I6** to calculate the average marks of **Gayani**?

....

(iii) Write a spreadsheet function to be written in column **C14** to calculate the highest marks in **subject 1**?

....

(iv) Write a spreadsheet function to be written in column **E15** to calculate the lowest marks in **subject 3**?

....

(v) Write a spreadsheet function to be written in column **G16** to calculate the number of students sat for the **subject 5**.?

....

(vi) Write a spreadsheet function to be written in column **C17** to calculate number of students in the class?

....

(6 x 2 = 12 marks)

4.

    a) Draw a flow chart to find the given number is **Odd number** or **Even number**.

(10 marks)

    b) Below is a scratch program to get a number and publish it as an Odd number or Even number.

       From ① tò ⑤ write the appropriate items for the locations shown

①	……………………………………..
②	……………………………………..
③	……………………………………..
④	……………………………………..
⑤	……………………………………..

(5 x 2 = 10 marks)