	Provincial Department of Education Northern Province மாகாணக் கல்வித் திணைக்களம் - வடக்குமாகாணம்	
	Diagnostic Test– 2021	
	ICT – I,II	
Name / Index No :-.......................	**Grade : 10**	**Time:- Three Hours**

Part 1

1) Which of the following contains only secondary storage devices?
   (1) CD, Printer, DVD, Hard Disk
   (2) Hard Disk, Screen, CD, Flash Drive
   (3) Hard Disk, CD, Flash Drive, DVD
   (4) DVD, CD, Hard Disk, Plotter

2) Which of the following occurred during the evolution of computer technology from the first generation to the current?
   A–power consumption of computers are increased
   B–Number of transistors per square centimeter in the CPU decreased
   C–Size of computers are decreased

   (1) A and Bonly   (2) A and Conly   (3) B and Conly   (4) Conly

3) Which of the following technology was used in third generation computers?
   (1) Vacuums tubes   (2) Micro chips
   (3) Integrated Circuits   (4) Transistor

4) Who was invented the Analytical engine?
   (1) Blaise Pascal   (2) Charles Babbge
   (3) John Mauchly   (4) Harward Aiken

5) Which of the following is considered as data?
   (1) Average value of rainfall in the last year
   (2) Sort list value of rainfall for each month in the last year.
   (3) The value of today's rainfall
   (4) Maximum value of rainfall for each month in the last year.

6) What is the code of shown un the following figure?
   (1) QR Code   (2) Barcode

   (3) ISBN   (4) ATM

   0 36000 29145 2

7) The most general term used to describe the set of instructions of a computer is ……..
   (1) Software   (2) Hardware   (3) Firmware   (4) Liveware

8) Which of the following device is used to connect computers with a LAN?
   - (1) Network Interface Card
   - (2) Router
   - (3) Server
   - (4) Firewall

9) Which of the following is/are basic components of a LAN?
   A–Web Server   B–Transmission Media
   C–Communication peripherals   D–Two or more computers
   - (1) B andConly
   - (2) B, CandDonly
   - (3) A, CandDonly
   - (4) All A, B, C and D

10) Consider the following devices.
    A–Wireless Mouse   B–Scanner
    C–Laser Printer   D–Touch Screen
    Which of the above is/are used to enter data into computer?
    - (1) A, Band Conly
    - (2) B, CandDonly
    - (3) A, BandDonly
    - (4) AllA, B, Cand D

11) Which of the following components of a computer performs the operations on data?
    - (1) Central Processing Unit
    - (2) Main Memory Unit
    - (3) Input Unit
    - (4) Secondary Storage Unit

12) Which of the following port(s) can be used to connect a printer with a computer?
    A- PS/2   B – Serial   C – USB   D – Parallel
    - (1) A, B andConly
    - (2) B, CandDonly
    - (3) A, CandDonly
    - (4) All A, B, C and D

13) Which of the followingdevice is used to provide backup power in the case of a main power failure?
    - (1) Multi Media Projector
    - (2) Plotter
    - (3)Uninterrupted Power Supply
    - (4) Power Supply

14) The decimal equivalent of 110011_2 is ………….
    - (1) 102
    - (2) 50
    - (3) 51
    - (4) 100

15) Which of the following has least value?
    - (1) 53_{10}
    - (2) 110110_2
    - (3) 62_8
    - (4) $1B_{16}$

16) The number of symbols used in the Unicode coding scheme is ………..
    - (1) 65525
    - (2) 65553
    - (3) 65536
    - (4) 65563

17) Which of the following is equivalent to 2 TB?
    - (1) 2^{10}GB
    - (2) 2^{20}MB
    - (3) 2^{30}KB
    - (4) 2^{21}MB

18) In the ASCII code, character 'B' is represented as 1000010. What is the option that represents the word 'CAD' in binary format?
    - (1) 1000011 1000010 1000100
    - (2) 1000011 1000001 1000100
    - (3) 1000011 1000100 1000001
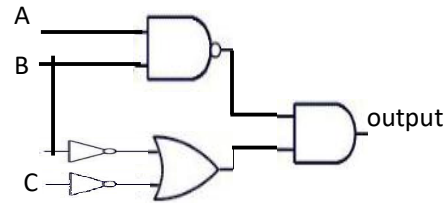   - (4) 1000010 1000011 1000001

19) The Hexadecimal equivalent of 1110101011_2 is ....

   (1) DA3   (2) 3AB   (3) 1653   (4) 7251

20) Consider the following number presented in x number system.

$$7901_x$$

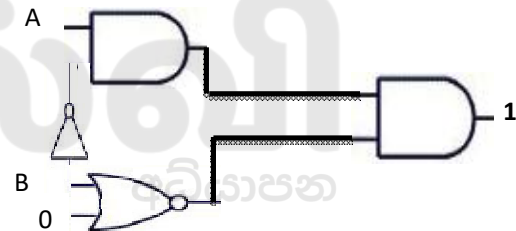Which of the following statement is true regarding the above number base on x?

   (1) Base of x is 8, 10 and 16   (2) Base of x is 2, 8 and 16

   (3) Base of x is 10 and 16   (4) Base of xis 8and 10

21) Consider the following statements.

A–The price of one pen is 10111_2

B–The price of two pencils is 1010_2.

Which of the followingis correct price of two pens and one pencil?

   (1) 11011_2 (2) 100011_2 (3) 10011_2 (4) 110011_2

22) Which of the following Boolean expression is equivalent to the output of the given logic circuit?

   (1) $(\bar{A}.\bar{B}).\overline{(B + C)}$

   (2) $(A.B).(\bar{B} + \bar{C})$

   (3) $\overline{(A.B)}.(\bar{B}.\bar{C})$

   (4) $\overline{(A.B)}.(\bar{B} + \bar{C})$

23) Find the values two inputs A and B such that the output is 1?

   (1) 0, 0

   (2) 1, 0

   (3) 0, 1

   (4) 1. 1

24) The logical expression A.(A+B) is equivalent to ....
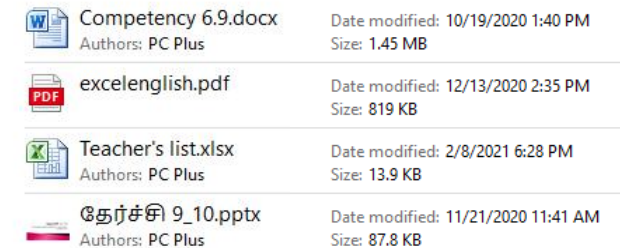
   (1) A   (2) B   (3) A+B   (4) A.B

25) Which Boolean expression below gets verified by the truth table given in the table?

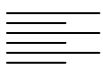   (1) $A + \bar{A}$ (2) A

   (3) $A.\bar{A}$ (4) $\bar{A}$

A	$\bar{A}$	output
1	0	0
0	1	0

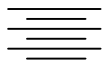26) Select the incorrect statement regarding operating system?

   (1) Ms DOS is an operating system which uses a command line interface.

   (2) Isuru Linux and Hanthana Linux are two open source operating system localized by Sri Lankan.

   (3) MsWindows is an operating system which uses a graphical user interface.

   (4) Ms DOS is an operating system which uses a graphical user interface.

3

27) Which of the following statement(s) is/are true regarding software?
A–Application software coverts data into information.
B- System software controls hardware.
C - Utility software is used to manage and analyze the software in the computer.
(1) Aonly (2) A andBonly (3) B and Conly (4) AllA, B and C

28) ………………… is used to store data/files temporarily for cut/copy and paste operations.
(1) Clipboard (2) Backup
(3) Disk Check (4) Disk Fragmentatioṅ

29) Which of the following file displays file name and its size of theword processing software?
(1) Teacher's list, 13.9KB

(2) Competency 6.9, 1.45 MB

(3) excelenglish, 819KB

(4) தேர்ச்சி9_10, 87.8KB

30) ………………… will appear the name of the opened document.
(1) Ribbon (2) Scroll Bar (3) Status Bar (4) Title Bar

31) Which of the following shortcut key is used to select all items in a document?
(1) Ctrl+B (2) Ctrl+A (3) Ctrl+D (4) Ctrl+K

32) Circle, square, and triangle shapes are drawn in a word processing software. Currently the squareshape is in the selected position. When you press the shortcut key Ctrl+D, Which of the following action takes place?
(1) All forms will be erased.
(2) The square shape will be erased.
(3) Another copy of the square shape will appear.
(4) All three shapes will be grouped.

33) Which of the following is/are in Page Orientation?
A - Landscape   B–Portrait   C–Gutter
(1) A and Bonly (2) B andConly (3) A and Conly (4) AllA, B and C

34) Which of the following includes Header and Footer in word processing software??
A–Text   B–Graphics   C–Page Number
D –Date   E–Time
(1) A, B and Conly (2) A, B, D and Eonly
(3) A, C, D and Eonly (4) All A, B, C,D and E

35) What is used to make adjacent cells into a cell in a word processing software table?
(1) Merge Cells (2)Split Cells (3) Split Table (4) Divide Column

36) Which of the following is not a type of page margin?
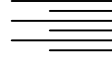(1) Left (2) Center (3) Right (4) Bottom

37) The process of removing unwanted part of an image is called…………..
   (1) Hiding   (2) Bordering   (3) Cropping   (4) Cutting

38) What is the name given to that part of word processing software that is used tò automatically insert names, addresses and other text into designed locations in a series of letters?
   (1) Mail Merge   (2) Page Layout   (3) Screenshot   (4) Word Wrap

39) Consider the following File name extensions
   A. Odt   B. docx   C. doc   D rtf
   Which of the above is/ are valid for files created using word processing software?
   (1) A and B only   (2) B and C only
   (3) C and D only   (4) All A,B,C and D.

40) In word processing, which one of the following symbols indicates the aligning of text on both left and right margins of a document?
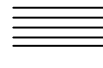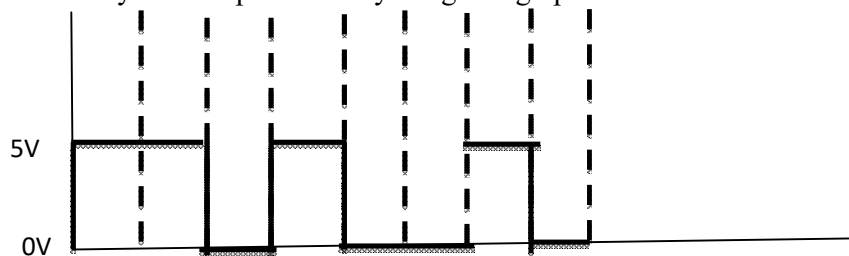

   (1) (2)   (3)   (4)

Part II

1) i) Write down two contribution of the ICT in health sector?
   ii) Write down two examples which used to Analog computers?
   iii) Convert the hexadecimal number BD_{16} to the equivalent octal number.
   iv) Draw the logical gates to the given expression $\overline{X.Y} + X.\overline{Y}$?
   v) Write the two types of the file accessing methods to using by OS?
   vi) Writedown an advantage of the disk partition?
   vii) Write the file extension of the presentation software?
   viii) Write down the ascending orders of the following storages are Hard Disk, Register,
Cache and CD
   ix) Write a coding system to represent by only numbers in computer?
   x). what is the binary value represented by the given graph.

2) a). State in which type of E-Government service has included the following activities.
   1. An Indian citizen knowing the laws of the government of Srilanka.
   2. Srilanka citizen updates his vehicle permit.
   3. Request of application form for management assistant by the srilankan government.
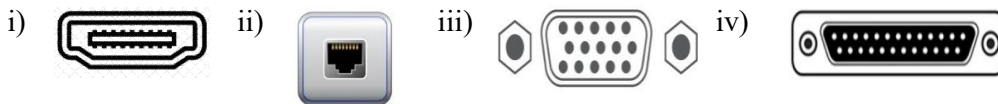
   b) There is a decision to conduct an online examination in your school. Students get user name and password. They can enter the system with using the above username and password and done it. They can got marks on the screen after pressing the submit button .
   Consider the above scenario and give each example for input, output and processing.

c) Name the inventors of the following devices.
   1. Adding Machine   2. Difference Engine   3. Mark1

3) a) Name the following ports.

   i)   ii)   iii)   iv)

   b) State in which type of data transmission modes has included the following activities
   1. Students have participated in Zoom class.
   2. Kamal send information to her friend sumi through the email.
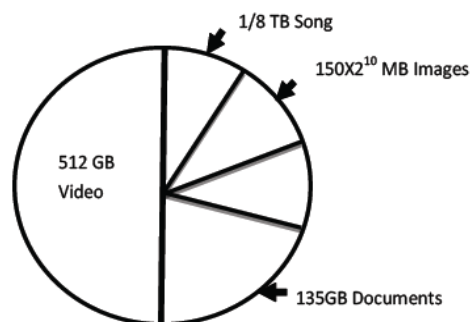   3. Can go to through a road only one direction

   c) Write down type of data transmission medium has included the following activities form the list given below.
   1. What is the cable used to CCTV
   2. Television is connected with wireless speaker
   3. A student starting the multimedia projector by using remote controller
   (Twisted pair, Co-axial ,Fibre optics, Micro waves, Radio waves, Infra-red waves)

4) a) Following the diagram represent to capacity of the Hard disk of the Suresh's computer.
   1. Find the total Capacity of the Hard disk in TB
   2. Find   the   Capacity   that   allocated for song in GB
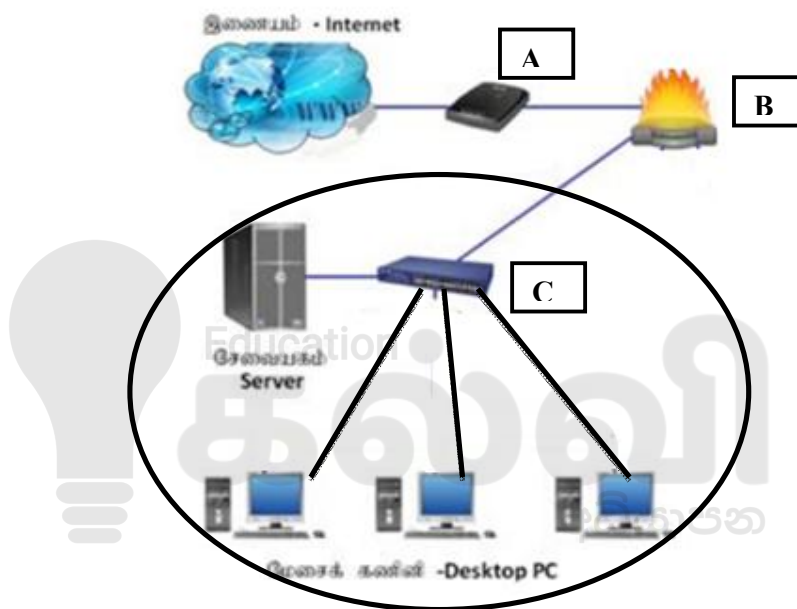

   b) 1. Consider the following incomplete truth table of the Boolean expression (A AND NOT(B)) OR C with some missing inputs and outputs marked as "?". You are required to copy this table into your answer script and fill in the cells marked as "?" with suitable binary values.

Inputs			Output
A	B	C	(A AND NOT(B)) OR C
1	1	1	?
1	1	0	?
?	0	1	1
1	?	0	1
0	1	?	1
0	1	0	?
?	0	1	1
?	?	?	0

2. Draw the logical gates in the above Boolean expression.

5) The following diagram demonstrates how computers in a school computer laboratory are connected to the internet.

1. Name A,B and C.
2. What is the name used to denote the type of he network shown in the circle area?
3. List two advantages of using a network such as the one in the circled area in the school computer lab?
4. What is the usage of the device B?
5. Which is the topology in the Desktop PC in the circled area?

6). a) Consider the following scenario:

A student has to prepare a report using presentation software type of **P**. He made a folder on hard disk using **R** service which is provided by the operating system of **Q**. He made security for his data using **S** service. He saved report on it. After completing the processing he scanned the USB drive using antivirus software **T** for changing the data to USB drive. He prints the report using the printer managedby **U**.

Identified and write down the correct terms of P, Q, R, S, T and U in the above paragraph from the List terms given below

(System software, Application software, Utility software, Process management,
    Device management, Security management, File management)

b) Consider the following statements are True/False regarding with operating system.
1. Folder contains files and other folders
2. Operating system can provide login to individual user.
3. File name is provided by Operating system.
4. A command line interface provides the graphical user interface to user

7). The following documents shows a text document partially formatted using word processing software. Elements to be formatted further in this document are labeled as A-D
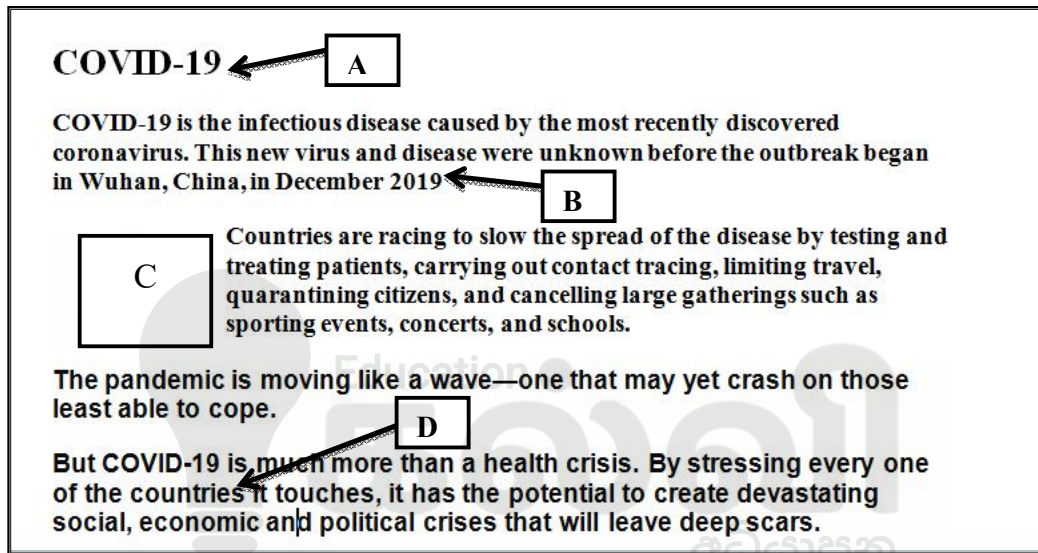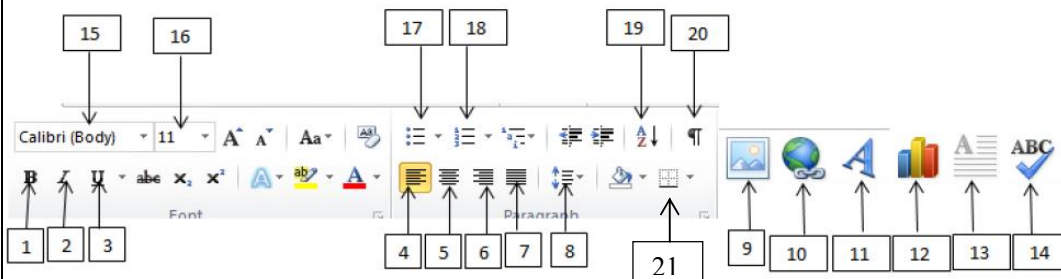

Figure 2 shown the formatting tools available in the typical word processing software .using labels 1-21, write down the tool required to complete the following task.

1. Change the appearance of the label A as   **COVID-19**
2. Center the title as shown by label A
3. Insert the picture as shown by label C
4. Label as B to bold face

5. Label as B to underline
6. Check the spellings of the documents
7. Show or hide the non-printing symbols of the document
8. To link the corona details using by web site address by label D
9. Insert the page border of the document
10. Change the paragraph spacing of the documents.