

### Third Term Test – 2023

## Information and Communication Technology – I

Grade 10

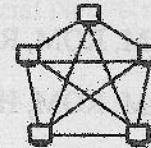
Time : 01 hour

Name / Index No :

04-02-2024

Answer all questions

- 1) Which is not a service provided to students by a Learning Management System (LMS),  
1. Upload Assignments once they are finished.  
2. Ability to relate to co-curricular activities through video demonstrations.  
3. Addition of quality learning units to the system through management.  
4. Ability to submit issues by joining discussion forums.
- 2) In which generation was the concept of stored program introduced?  
1. First                  2. Second                  3. Third                  4. Fourth
- 3) In .....multiple users connect to a central computer through multiple terminals and exchange data.  
1. Super computer    2. Mainframe computer    3. Mini computer    4. Micro computer
- 4) What is the name of the memory that acts as an intermediary between the central processing unit and Random access memory which stores frequently used data?  
1. RAM                  2. ROM                  3. Secondary Memory    4. Cache Memory
- 5) Which device can scan and computerize a document with many pages in a short period of time?  
1. Bar Code Reader                  2. Optical Character Recognition  
3. Magnetic Ink Character Reader                  4. Optical Mark Recognition
- 6) The network topology given below is,  
1. Mesh topology                  2. Star topology  
3. Tree topology                  4. Bus topology
- 7) Consider the following attributes taken from ASCII table  
 $A=65$        $I=47$        $L=76$ .
- What is the binary ASCII representation of A/L?
1. 0001001 0101011 101101      2. 1010001 0101011 101110  
3. 1010011 0101011 001101      4. 1000001 0101111 101100



8) Which of the following is the largest number?

1.  $100100_2$       2.  $2.25_8$       3.  $95_{10}$       4.  $E8_{16}$

9) 8 Mega bites include,

1.  $2^{13}$  KB      2. Byte  $2^{21}$       3. Byte  $2^{22}$       4. Byte  $2^{21}$

10) The Most Significant Bit and the Least Significant Bit of the binary number  $110.10$  is,

1. 0,1      2. 1,0      3. 1,1      4. 0,0

11) Kasun wants to store 3 files of 118 MB, 512MB and 983 MB capacity and which minimum capacity USB PEN DRIVE is best to store those files?

1. 1 GB      2. 2GB      3. 8GB      4. 16GB

12) In the number  $101_x$ , X represents the base of the number system. The appropriate base for X is,

1. Binary only      2. Hexadecimal only  
3. Octal only      4. Binary/ Octal /Hexadecimal/Decimal

13) The printer used to print receipts in Automated Teller Machine is,

1. Thermal Printer      2. Line Printer  
3. Plotter      4. Laser Printer

14) Components of Central Processing Unit are,

1. RAM, ROM, Cache memory      2. Hard disk, Cache memory, Control unit  
3. Main memory, Register, ALU      4. ALU, Control unit, Register

15) Which of the following is correct when storage devices are arranged in ascending order according to their capacity?

1. RAM, ROM, Register Memory, Hard Disk  
2. Register Memory, RAM, ROM, Hard Disk  
3. RAM, ROM, Register Memory, Hard Disk  
4. RAM, ROM, Hard Disk, Register Memory

16) A device used to connect computers on a computer network or a personal computer used at home to the Internet through a telephone line is,

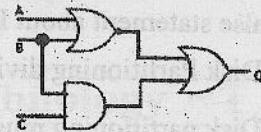
1. Modem      2. Firewall      3. Switch      4. Router

17) When two people communicate face to face, that form of communication is called as,

1. Simplex      2. Half-Duplex      3. Full-Duplex      4. Full Range

18) The output of the following logic circuit is,

1.  $(A + B) + (B+C)$
2.  $(A + B) + (B.C)$
3.  $(A + B) + (B+C)$
4.  $(A + B) + (C)$

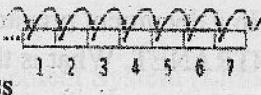


19) Which is not an integral part of an integrated circuit,

1. Transistor
2. Speedometer
3. Resistor
4. Capacitors

20) What is the method use to access files at the operating system level?

1. Random Access
2. Direct Access
3. Sequential Access
4. Random Access and Direct Access



21) The logic gate represented in the following table is,

1. AND
2. OR
3. NOT
4. NAND

A	B	Q
0	0	1
0	1	1
1	0	1
1	1	0

22) When a student select Grade 10 basket subjects, he should select Tamil language with Information technology or Health. What is the answer that represent this scenario respectively?

1. AND
2. OR, AND
3. AND , OR
4. NOT

23) What is the most suitable type of network to connect all the branches of ABC Bank located in Gampaha District?

1. Local Area Network (LAN)
2. Metropolitan Area Network (MAN)
3. Wide Area Network (WAN)
4. Internet

24) What is the modern concept of using a computer network to access a remote computer and perform tasks such as processing files, storing files, using software and hardware resources, and software development?

1. Cloud computing
2. World Wide Web
3. File transferring
4. Social Network

25) Functions of utility programs,

1. Provide a user interface to the user.
2. Improve computer efficiency and perform maintenance.
3. Managing the hardware of a computer
4. Establishing links between hardware and operating system.

26) False statement about Disk Partitioning is,

1. Disk Partitioning divides the hard drive logically into multiple partitions.
2. Disk partitioning must be done every time a new hard drive is connected to the computer.
3. Repartitioning any hard drive will erase all data on it.
4. When the hard drive is partitioned, the partitions are named C:,D:,E: etc.

27) In a document prepared by Malini, the word INTERNET was mistakenly written as INTRANET. What is the appropriate action to correct the wrong spelling?

1. Spelling & Grammar
2. Word Count
3. Find & Replace
4. Thesaurus

28) The incorrect keyboard shortcut used in word processing software is,

- |                     |                    |
|---------------------|--------------------|
| 1. Ctrl + P = paste | 2. Ctrl + X = Cut  |
| 3. Ctrl + Z = Undo  | 4. Ctrl + C = Copy |

29) What is the function key that can be used to display an e-presentation?

1. F7
2. F1
3. F10
4. F5

30) What is the e-presentation software that is available through a cloud service?

1. Google Presentation
2. Abi Word
3. Cal
4. Number

31) All slides in the presentation are shown in small size by,

- |                 |                      |
|-----------------|----------------------|
| 1. Normal View  | 2. Slide Sorter View |
| 3. Reading View | 4. Slide Show        |

Answer the questions 32-33 using given Excel.

A	B	C	D	E	F
1					
2	Number of Books	4	6	8	5
3	Unit Price Rs.	22			7
4	Price of Books Rs.				

32) What is the suitable function to insert the price of books to B4 cell? (It is copied upto F3)

1. =\\$B3\*B2
2. =B\$3\*B2
3. =\\$B\$3\*B2
4. =\\$B3\*B\$2

33) When =COUNT(A2:F4) is inserted to the cell A5, what will be the answer ?

1. 6
2. 9
3. 5
4. 3

4-03-2024  
G 10

## Third Term Test - 2023

## Information and Communication Technology - II

Grade 10

Time : 02 Hours

Name / Index Number :

The First question is Compulsory. Answer first question and 4 other questions.

- 1) i. Name 2 places where QR code is used to search information. 2 marks  
 ii. Match column A and B 2 marks

A	B
i. Used in architectural design	A. Light pen
ii. Known as central processing memory	B. ROM
iii. Use to draw or write something on computer screen	C. Cache Memory
iv. Non-volatile memory	D. Plotter

iii. A - Convert octal number 75<sub>8</sub> to hexadecimal number. 2 marks

B - How many bits are there in following coding systems?

- ASCII
- BCD

iv. a) Draw the logic circuit corresponding to the Boolean statement given below. 1 mark

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

b) If A = 1, B = 1, and C = 1 in this algebraic expression, What is the value of Z ? 1 mark

v. Select and Write the appropriate terms from the list for the following points related to operating systems. 2 marks

- a.....is a real time operating system.
- b. Allocation of CPU time is called.....
- c. In a command line interface, commands are given to the.....;
- d. Storing pieces of the file in different parts of the disk is known as.....

(Prompt, Fragmentation, ATM, Process Management)

- vi. a) Name a software that is used for word processing in mobile phones 1 mark
- b) Dasun created an invitation card for his birthday party. What is the facility in word processing software to make the card receive to all his classmates? 1 mark
- vii. a) What will be the output if the formula =  $3+5^2$  is inserted into a spreadsheet considering operator precedence? 1 mark
- b) What is the name of the small black square in the bottom right corner of the selected cell? 1 mark
- viii. What is the relevant condition for inserting pictures and videos in a quality e-presentation? 2 marks
- ix. What is the idea of data encryption process used to protect a database? 2 marks
- x. Write 2 advantages of e-commerce or online shopping. 2 marks
- 2) i. If the following statements regarding computer generations are true, mark ✓ and if false mark X. 3 marks
- Vacuum tubes were used in second generation (.....)
  - Operating system was introduced in third generation (.....)
  - Artificial Intelligence, voice recognition were introduce in fourth generation. (.....)
- ii. Match the given ports with computer devices. 4 marks

A	B
1. Parallel Port	P. Keyboard
2. VGA	Q. Modem
3. Serial Port	R. Monitor
4. PS/2	S. Printer

- iii. Separate the following devices into Magnetic Media Devices, Optical media devices and Solid state devices. 3 marks
- (CD / Memory Card / Hard Disk / DVD / USB Pen drive / Floppy Disk)

3) Data communication takes place in several ways from system to system.

- i. State whether the following statements are true or false. 2 marks

X - Telephone conversation is an example for Full-Duplex data communication. (.....)

Y - Walkie-talkie is an example for simplex data communication. (.....)

ii. Select the suitable word for each sentence. 4 marks

P. .... (twisted pair / coaxial cable) is used for television antennas.

Q. Transmission of data by reflecting light is called..... (Radian cyclization / Potential cyclization).

R. Wi-Fi is a ..... medium. (Radio wave / Microwave)

S. .... is used in wireless remote controls. (Microwave /Infrared)

iii. Draw a star topology using 3 computers C1, C2, C3 and a printer P1 and a switch S1. 2 marks

iv. Write 2 disadvantages of networking. 2 marks

4) i. Below is the before and after status of a word document processed using word processing software.

ICT Exhibition

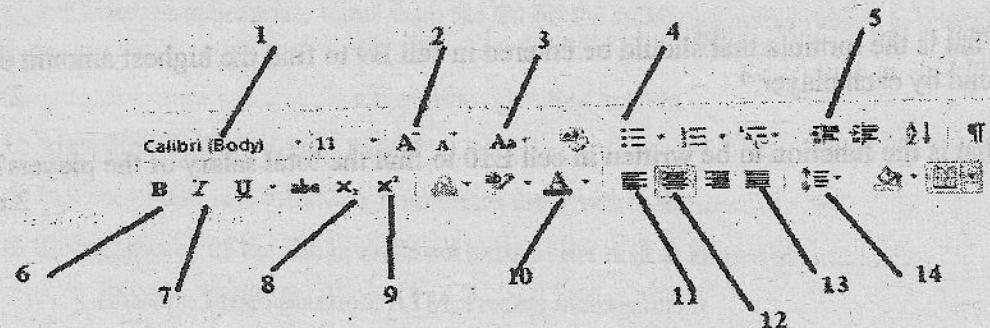
There is an ICT exhibition in our school During 22nd – 28th of this month. We are pleased to invite you to attend to this event. Please give a call to 0719948853 (janaka sir) to confirm your participation  
Thank you

a  
b  
c  
d  
ICT Exhibition  
There is an ICT exhibition in our school During 22<sup>nd</sup> – 28<sup>th</sup> of this month. We are pleased to invite you to attend to this event. PLEASE GIVE A CALL to 0719948853 (janaka sir) to confirm your participation  
Thank you

Before formatting

After formatting

Below are some formatting tools in a word processing software.



## Grade 10 - Information and Communication Technology - I

34) If the row number and the column letter of the adjacent cells change accordingly when a formula is copied, such cell addresses are called,

- |                                   |   |
|-----------------------------------|---|
| 1. Relative cell reference        | 2. Row absolute cell reference            |
| 3. Column absolute cell reference | 4. Row and column absolute cell reference |

35) The shortcut key to move to column A from the active cell is,

- |                        |                      |
|------------------------|----------------------|
| 1. Home                | 2. Ctrl + arrow keys |
| 3. Ctrl + Up arrow key | 4. Ctrl +Home        |

Below is a database containing details of regional secretaries of several districts. Answer the given questions using the database.

Secretary Table		
NIC_No	Name	DSD_Code
789878059V	K.D. Gunawardhana	01/03
708990340V	M.P.Jagath	01/02
807893350V	R.P. Gunawardhana	01/03

Division Table	
Division_Code	Division_Name
01	Rathnapura
02	Kegalle

Secretary-Division Table		
DSD_Code	Division	Division_Code
03/03	Rathnapura	01
03/02	Kuruwita	01
02/03	Dihiwita	02



36) Number of fields and records in Secretary Table are,

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. 3,4 | 2. 3,5 | 3. 3,3 | 4. 4,3 |
|--------|--------|--------|--------|

37) The primary key of above database is,

- |   |                                    |
|---|------------------------------------|
| 1. DSD Code in Secretary Table                | 2. Division_Code in Division Table |
| 3. Division_Code in Secretary- Division Table | 4. Name in Secretary Table         |

38) The true statement about foreign key of the above database is,

- |                               |                                    |
|-------------------------------|------------------------------------|
| 1. NIC_No in Secretary Table  | 2. Division_Name in Division Table |
| 3. Division in Division Table | 4. DSD_Code in Secretary Table     |

39) Regional Secretary M.P. Jagath is scheduled to retire from next month. Which table/s should be updated accordingly?

- |                              |                   |
|------------------------------|-------------------|
| 1. Secretary Table           | 2. Division Table |
| 3. Secretary- Division Table | 4. All tables     |

40) What are the suitable data types for NIC No, Name in above database?

- |                 |                 |               |                    |
|-----------------|-----------------|---------------|--------------------|
| 1. Text, Number | 2. Number, Text | 3. Text, Text | 4. Number, Boolean |
|-----------------|-----------------|---------------|--------------------|

**Grade 10 - Information and Communication Technology - II**

6) i. The operating system identifies the file type based on the extension of a file.

a) What is the file type corresponding to the following file extension? 1 mark

.docx

.accdb

b). Write the steps to change the name of a folder. 1 mark

ii. Sahan bought a new hard disk. His friend said to do a disk partitioning before using it.

a) What is Disk Partitioning? 2 marks

b) What is the next step after Disk Partitioning? 2 marks

iii. Mention 1 advantage of graphical user interface over command line interface 1 mark

iv. Name 2 utility software in operating system. 2 marks

7. Write the answers to the questions from the database tables given below.

**Leaders Table**

L_ID	Sport_ID	L_NAME
L001	S001	Vihaga
L002	S002	Chamath
L003	S003	Pradeep

**Sport Table**

Sport_ID	Name
S001	FootBall
S002	Cricket
S003	Netball

**Students\_Sports Table**

Stu_ID	Name	Age group	Sport_ID
SS1	Dasun	Under 19	S001
SS2	Vihaga	Under 17	S002
SS3	Chamath	Under 19	S003
SS4	Pradeep	Under 17	S001

i. Complete the table below from the above database.

2 marks

Table Name	Primary Key
Sport Table	
Leaders Table	



ii. Name 2 foreign keys of this database with table names. 2 marks

iii. Write the tables to be updated for the following situations. 2 marks

a. It is intended to introduce Rugger game to school students and to appoint Chamath as the leader.

b. Due to insufficient number of students, it was decided to remove the game of Foot Ball from the school.

iv. Write down how to update the above scenario 'a' as below 2 marks

Table Name → (Field 1, Field 2),

v. Which tables are needed to create a query about the sport in which the student with the student number SS1 is engaged? 2 marks

student		student	
studentID	studentName	studentID	studentName
1001	Shanmugam	1002	Chamath
1003	Suresh	1004	Praveen
1005	Hariharan	1006	Subramanian

studentPeriodEngagement		
studentID	engagementID	periodID
1002	1	periodI
1002	2	periodII
1002	3	periodIII
1002	4	periodIV

studentEngagement		student
engagementID	studentID	studentID
1	1001	1001
2	1002	1002
3	1002	1002
4	1002	1002