

Sri Jayawardhanapura Education Zone

First Term Test –March 2019

Grade 11 Information & Communication Technology – I

Time: 1 Hour

Note: Answer all questions

In each of the questions 1 to 4, pick one of the alternatives (1),(2),(3),(4) which you consider as correct or most appropriate.

- Class teacher asks Students to gather the **marks** for mathematics of each student and to calculate the **average**. the words that are bold respectively refer to
 - Data and Information
 - Information and Data
 - Both Information
 - Both Data
- What is not an example for Volatile memory
 - Cache Memory
 - Memory Card
 - RAM
 - Memory Register
- Consider the following statements.
A – Register memory in a computer has a smaller capacity than that of a hard disk.
B – Data access speed of register memory is slower than the speed of a hard disk.
C – Per bit cost to store data in register memory is higher than the per bit cost to store data in a hard disk
Which of the above statements are true?
 - A and B
 - A and C only
 - B and C only
 - All A, B and C
- Parts of the CPU in a personal computer are.....
 - Memory, control unit and storage
 - CU,ALU and ROM
 - CU, ALU and memory register
 - ALU,CU, Cache memory
- Which of the following can be used to connect two computers?
 - OMR
 - MICR
 - UPS
 - NIC
- What is the binary value of hexadecimal number 90?
 - 10010000
 - 5A
 - 1011100
 - 90
- Which of the following will be the output produced by the circuit given below?
 - $\bar{A} .(B+C)$
 - $\bar{A} + (B+C)$
 - $\bar{A} . (B.C)$
 - A. (B+C)
- Which statement is valid?
 - 1KB=8bytes
 - 1MB=8KB
 - 1KB=1024 bytes
 - 1MB=1024 Bytes

9. Which of the following statements are true about the system software
- (A) Ubuntu and Mac are kinds of system software
 (B) It is responsible for integrating and managing the individual hardware components
 (C) Enable the application software to interact with the computer hardware.
- (1) A and B (2) A and C (3) B and C (4) A,B, C all
10. Which of the following is a direct function carried out as part of memory management in an operating system?
- (1) Releasing memory when a task is completed
 (2) Accessing the hard disk
 (3) Organizing files in a folder
 (4) Managing devices
11. A network is called a Star topology if
- (1) A computer is attached with multiple cables.
 (2) All computers are attached to a central device.
 (3) All computers are attached to a single cable.
 (4) Computers are arranged in a closed group.
12. Which of the following is equivalent to 1445_8
- (1) 001111101001 (2) 001100100101 (3) 1010011001000 (4) 00110010011
13. Which of the following is equivalent to hexadecimal 32_{16}
- (1) 11001_8 (2) 101010_2 (3) 62_8 (4) 74_8
14. Which of the following is the BCD value of decimal 235?
- (1) 001111101001 (2) 001100100101 (3) 101011001000_2 (4) 001000110101
15. Which of the following represents ASCII character "E" if the character B is represented as 1000010_2
- (1) 10000001_2 (2) 1000100_2 (3) 100001010_2 (4) 1000101_2
16. Portrait and Landscape in a word processing software are called.
- (1) Page Orientation (2) Paper Size (3) Page Layout (4) Margin
17. Word processing software can be used to change a word mentioned in different places even in a long document. This facility is called,
- (1) Cut and paste (2) Copy and paste (3) Find and Replace (4) Spellings and Grammar
18. Features that affects the popularity of using word processing software in a computer than the typewriter is,
- A. Re editing can be done easily B. Checking spellings and Grammar easily
 C. Ability to add pictures
- (1) A and B only (2) B and C only (3) A and C only (4) A,B and C
19. Which facility /Tool can be used to write CO_2
- (1) Increase Font size (2) Decrease Font size (3) Superscript (4) Subscript

30. What is the shortcut key combination that can be used to insert a new slide into an electronic presentation?

- (1) Ctrl+X (2) Ctrl+M (3) Ctrl+S (4) Ctrl+N

31. What is the function key used to view a slide show in a presentation software?

- (1) F1 (2) F4 (3) F5 (4) F6

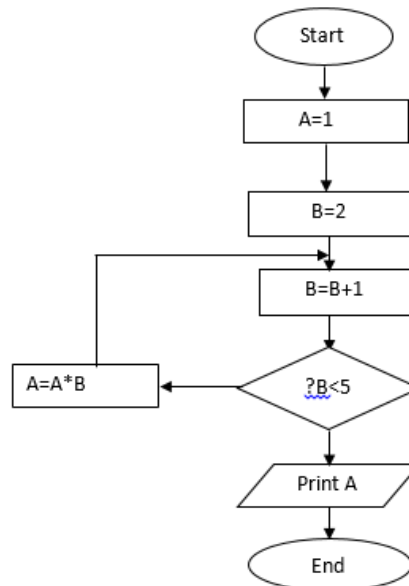
32. What is the output of the following pseudo code?

- (1) 100,99,98,97,96
(2) 100,99,98,97,96,95
(3) 99,98,97,96,95
(4) 99,98,97,96

```
Begin
    X=100
    While x>95
        Print x
        X=x-1
    End While
    Print x
End
```

33. Select the Correct Control structures present in the following flow chart

- (1) Selection, Repetition
(2) Selection, Repetition, Sequence
(3) Sequence, Repetition
(4) Selection, Sequence



34. What is the output of the above flow chart?

- (1) 9 (2) 12 (3) 8 (4) 16

35. Consider the 'while' loop and the 'repeat until' loops given below:

```
count_x = 1
while count_x <=10
    count_x = count_x+2
end while
```

```
count_y =1
repeat
    count_y = count_y+2
until count_y <=10
```

What are the values of count_x and count_y after completion of the execution of while and repeat until loops respectively?

- (1) 9 and 9 (2) 9 and 11 (3) 11 and 9 (4) 11 and 11

36. Select the correct output of the following pseudocode.

```
x=5
y=(x*2)+10
While (y>5) do
    Print y+2
    y=y/2
print x
```

- (1) 20 10 5 (2) 22 12 5 (3) 22 12 10 (4) 22 13 7.5 5

37. Which of the following is an invalid data type in pascal?

- (1) Real (2) Char (3) Boolean (4) Float

38. Which of the following is suitable as a variable in Pascal?

- (1) exports (2) Student ID (3) &Total (4) Last_name

39. Which of the following is not a reserved word in Pascal?

- (1) String (2) mod (3) case (4) Average

40. What is the output when following expression is executed in pascal?

NOT (16 mod 4 >6)

- (1) True (2) False (3) 0 (4) Not True

Sri Jayawardhanapura Education Zone

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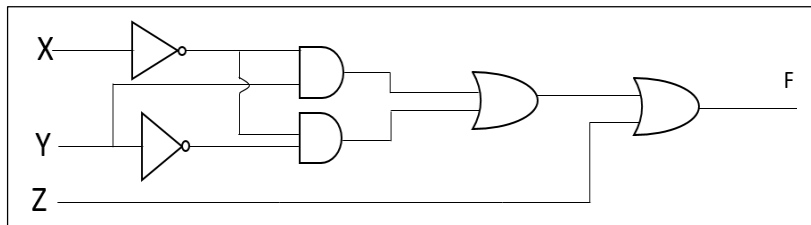
Grade 11 Information & Communication Technology – II

Time: 2 Hours

Note: Answer *five questions* only, selecting the *first question* and *four others*
First question carries 20 marks and each of the other questions carries 10 marks.

(1)

- i.
 - a. What is the major hardware technology used in second generation computers.
 - b. Write two differences between second and third generation computer's.
- ii.
 - a. List four ways how ICT helps in field of education.
 - b. Write four characteristics of information.
- iii.
 - a. Complete the following calculation and provide the answer in base decimal.
 $4BF_{16} + 3456_8$
 - b. Convert 502_8 into a binary number. Write down the steps.
- iv. Write down the output (F).



- v. Match column A with B.

A		B	
1	Key board	A	Video Port
2	Printer	B	PS/2 Port
3	Router	C	Parallel Port
4	Monitor	D	Network Port(RJ 45)

- vi. Write down the coding systems used by the computer.
- vii. Following pseudocode is designed for the purpose to find a given number as odd or even. Fill in the blanks to complete it.

```
Begin
    Input X
    IF X mod ..... = 0 Then
        ..... "X is even number"
    Else
        Print "X is ..... number"
        .....
End
```

viii. Read the following paragraph and answer the questions.

Malan watched a TV programme using his smart phone with a connection to Bluetooth speaker. The TV programme consisted of some conversations and songs.

- a. Which data transmission medium is used in above scenario?
- b. What is the mode of transmission, used in above scenario?

ix. Match column A and B.

A	B
Software which checks attached devices when a computer turns on	Disk defragmentation
Operating System with command line Interface	Format
A mechanism of initializing suitable storage structure	BIOS
A mechanism that rearranged files in hard disk	DOS

x. List two advantages of a computer network.

(2) “Tech Zone” is a store that sells computer parts. They purchase items from consignment suppliers. The details of supplied items and suppliers is recorded in following tables of a database.

Purchase Table

Date	Supp_ID	Item_ID	Count
20/01/2019	S01	B001	40
29/01/2019	S03	B004	20
12/02/2019	S02	B002	30
25/02/2019	S04	B003	15
14/02/2019	S02	B001	20

Supplier Table

Supp_ID	Supp_Name	Phone No
S01	Tech Lanka	0352225456
S02	IT Zone	0112857832
S03	City Smart	0412256453
S04	Tech Park	0112564875

Item Table

Item_ID	Item Name	Stock
B001	19’’ LED Monitor	15
B002	1TB Hard Disk	20
B003	16 GB USB Flash Drive	15
B004	1Tb RAM	20

- i. Write two suitable primary keys with the name of the table.
- ii. Avishka goes to Tech zone and buy five 16GB USB flash Drives;
 - a. Which table(s) should be updated?
 - b. Write down the updated record(s) in each table.
- iii. The Tech Zone decides to add a new item “Optical Mouse” and purchases 40 units of them from the supplier Tech Park on 2019/02/28.
 - a. Which table(s) should be updated?
 - b. Write down the new record(s) according to above updated table(s).
- iv. Mention two methods that can be used to protect this database.

- (3) A student who is in the Computer Club of Mahanama College created following notice. He used a Word processing software to create this notice. Answers to questions using the given notice.

ICT CLUB-MAHANAMA COLLEGE

The club is an educational and fun group. Which meets after School about every week. **MR. Farshan** our computer instructor, manage this group. Our membership grows day by day, as it has become quite popular within in the School mainly, it is up to the student to decide what they wish to accomplish.

There are many things to choose from. some of the most popular activities are :-

C Using Educational Software

- ❖ Making web pages
- ❖ Creating
- ❖ 2D/3D Animations
- ❖ Programming in JAVA

D

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A

B

i.

- a. Write down the steps required to save this document in desktop as ICT CLUB.
- b. What is the tool used to do the formatting in label A.
- c. Name the tools that are used in labels B C and D.
- d. How do you insert a hyperlink for school web site as mentioned above?

ii.

- a. Write five qualities of a good presentation.
- b. What are the views types of an electronic Presentation?

(4)

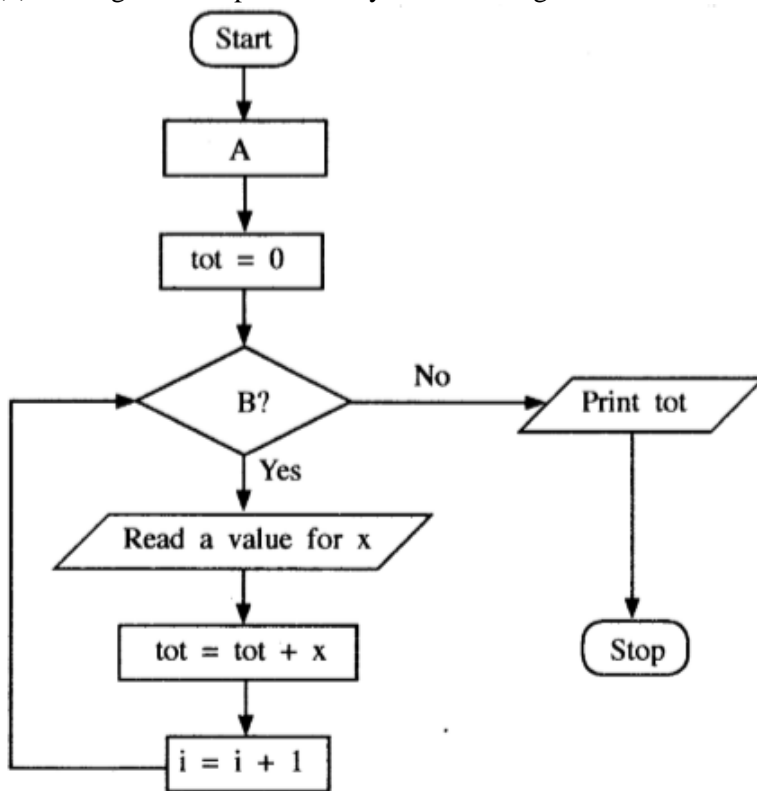
- i. Telemedicine is one advantage of information and communication technology. State what is mean by Telemedicine and give two instances where telemedicine is used.
- ii. A member of hardware team stated that partitioning is an important activity in utility programme of an operating system. What do you mean by partitioning and mention when to do it?
- iii. Gayani has registered herself in an electronic banking System. She uses this facility to do online Shopping.
 - a. Mention two advantages she gets from online shopping.
 - b. Mention two other facilities she receives from e-banking system.

(5) Consider the following income report of Mahaweli Maha Vidyalaya and answer questions i to vi. Each house collected money from the students for the expenses of the sports festival and 10% of the total collected by each house should be given to the school.

	C	D	E	F	G	H	I
3				Sportsmeet -2019 Income Report			
4	Date	House Name	No.of Students	Fee per Student	Amount	Contribution to School	Amount after Contribution
5	5-Jan-19	Hansa	1040	Rs. 100.00	Rs. 104,000.00	Rs. 10,400.00	Rs. 93,600.00
6	10-Jan-19	Lihini	1030	Rs. 100.00	Rs. 103,000.00	Rs. 10,300.00	Rs. 92,700.00
7	14-Jan-19	Mayura	1025	Rs. 100.00	Rs. 102,500.00	Rs. 10,250.00	Rs. 92,250.00
8	16-Jan-19	Parevi	1035	Rs. 100.00	Rs. 103,500.00	Rs. 10,350.00	Rs. 93,150.00
9		Total					Rs. 371,700.00
10	Contribution Percentage		10%				

- Write down the correct formula to find the amount collected by Hansa House in cell G5.
- The **Contribution Percentage** is given in cell E10. The amount of **Contribution to School** is calculated by multiplying the **Amount** by the **Contribution Percentage**. Write down the formula to display the **Contribution to School** in cell H5 for Hansa house. Assume that this formula will be copied to other cells to calculate the **Contribution to School** for all houses.
- Write down the correct formula to find the total **Amount After Contribution** of Hansa House in cell I5.
- Write down the correct formula to find the total income (**Total Amount After Contribution**) in cell I9.
- Organizing committee decided to change the contribution percentage from 10% to 12%. What are the cells you need to change after this?
- Name two types of charts, to display the **house name vs amount after contribution**.

(6) The algorithm represented by the following flowchart reads 5 numbers and prints the sum of them.



- Identify and write down the appropriate statements for labels **A** and **B**.
- Write a pseudocode to represent the above flowchart.