



மாகாணக் கல்வித் திணைக்களம்
வடக்குமாகாணம்
Provincial Department of Education – Northern Province



Second Term Examination 2022

Grade 11	Information Communication Technology I,II	Time :- 3 Hours and 10 minutes
Index Nò:.....	80 T I,II	

Part I

Answer for all questions.

- Consider the following statements
A. Analysis graph m displayed without any labeled for x axis, y axis and title)
B. Modern hard disk has more storage capacity than a DVD
C. A program is written ten lines in Pascal language. Its convert into machine language by using compiler.
Which one of the following does contain information?
1. A only 2. B, C only 3. B only 4 All A,B and C
- G.C.E. (O/L) Candidates can obtain their examination results from the website of the department of examination. Which is the example e-government service for the above statement?
1. G2B 2. G2G 3. G2C 4. G2E
- Which of the following device is used to connect to a computer with a switch?
1. Network interface card 2. Router 3. Firewall 4. Server
- Consider the following devices
A- Laptop Computer B -Desktop Computer
C -Personal Computer D - Mini Computer
Which of the above is/are example of micro Computer?
1. A,B 2. A,C 3. A,B, C 4. All A,B,C,D
- Which of the following set is suitable for durable storage of data in a computer?
A. Cache memory, Hard disk, RAM 2.Hard disk, DVD, Pen drive
3.Hard disk, DVD, Cache memory 4.Cache memory, DVD, Pen drive
- Which of the following Computer generation have been used in the operating systems with graphical user interface?
1. First 2. Second 3. Third 4. fourth

7. Which of the following is not equivalent of 4KB ?

1. 2^{12} Bytes 2. 2^{15} Bits 3. 2^{22} Bytes 4. 2^{-8} MB

8. Which one of the following is the largest number?

1. 168_{10} 2. AC_{16} 3. 742_8 4. 101100_2

9. Select of the logical gates corresponding to the following truth table

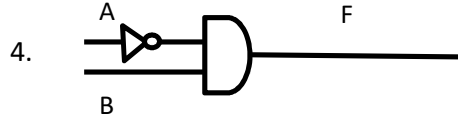
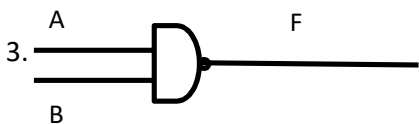
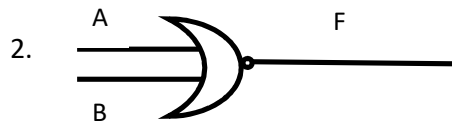
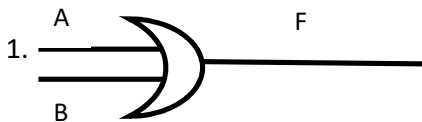
A	A'	output
0	1	0
1	0	0

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

10. consider the following logic circuit diagram



Which of the following is equivalent to the above logic circuit?



11. What is the utility tool in an operating system that can be used to divide the hard disk in logical?

1. Backup software 2. Disk Scanner 3. Task Manager 4. Disk Partition

12. Consider the following statement relating operating system.

A – Operating system provides an interface to the user.

B - Operating system manages resource of the computer efficiently.

C - A directory can contain files & other directories.

Which of the above statements is/are true?

1. A only 2. A,B only 3. A,C only 4. All A,B and C

13. Which of the following software that installed for formatting of typing text on a computer after formatting the hard disk of a computer with installation of operating system?

1. Office package 2. Antivirus Software
3. Web Browser 4. Operating system

14. Which of the following statement is correct relating operating system?

1. A Command line interface (CLI) provides the facility to use the mouse to execute the commands
2. WIMP stands for windows, Icons, monitor and pointer
3. Graphical User interface (GUI) is more user friendly compared to CLI
4. CLI is more user friendly compared to GUI.

15. Which of the following contain only the example of free and open source operating system?

1. Android, Ubuntu, windows10
2. Android, Ubuntu, Hanthana Linux
3. Hanthana Linux, Mac OS, Android
4. Mac OS, Windows 10, Ubuntu

16. Consider the file names

- A. Exam.docx B. Campus.Odt C. Sara.xlsx

Which of the above files is/are example of word processing software?

1. A only
2. A,B only
3. A,C only
4. C only

17. Which of the following tool is essential to get mail merge in word processing software?

1. Master document, Data Source, Mail merge processes
2. Master document, Thesaurus, Mail merge processes
3. Thesaurus, Spell check, Master document
4. Thesaurus, Spell check, Data Source

18. Consider the range cells given as (A3:D4) in a spreadsheet. How many rows and columns are included in this range?

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

19. Which of the following formula is used to get number of values contained in the content of specified cell range?

1. Max
2. Count
3. Min
4. Average

20. Which of the following is displayed the address of cell in the spreadsheet?

1. Column heading
2. Formal bar
3. Name box
4. Sheet tabs

21. Which of the following section does not exist in a slide layout?

1. Titles
2. Lists
3. Chart
4. Animations

22. Which of the following views is the best view to use when setting transition effects for all slides in a presentation?

1. Slide sorter
2. Slide show
3. Notes page
4. Outline view

Consider the following partial table and answer the questions 23 to 25

Class	
ClassID	Class name
S1	10 A
S2	11 B
S3	12

Student		
SID	Name	ClassID
001	Lala	S2
002	Mala	S1
003	Kumu	S1
004	Seelan	S3
005	Sayan	S3

23. What would be the primary key of the student table?

1. ClassID
2. Name
3. SID
4. SID+ClassID

24. What is the relationship between Class and student table?

1. One to one
2. One to many
3. Many to many
4. One to three

25. What is the suitable data type of the field classID?

1. Number
2. Text
3. Currency
4. Date & time

26. Which of the following is an invalid identifier in Pascal program?

1. Begin3
2. X_3
3. Full Name
4. FullName

27. Which of the following term is used to declare Variable in Pascal?

1. Const
2. Var
3. Array
4. Program

Consider the following flow chart and answer the questions from 28 to 30

28. What is /are the control Structure used in the Flowchart on the right?

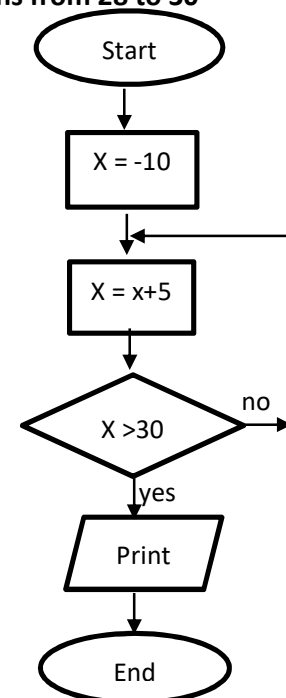
1. Only Repetition
2. Only Selection
3. Sequence & Selection
4. Sequence & Repetition

29. What is the output of the flowchart on the right?

1. 30
2. -15
3. 40
4. 35

30. How many times will be executed the flowchart on the right?

1. 10
2. 8
3. 9
4. 7



31. Consider the following statements

- A. Pascal is an example of high level language.
- B. Assembly language is a machine dependent.
- C. Machine language is easy to understand human.

Which of the above statement (s) is/are incorrect?

1. A only 2. A,B only 3. C only 4. All A,B,&C

32. Which of the following Pascal statement is correct to assign the character 'Z' to the 12th Component of an array variable A of data type char?

1. A[11] = Z; 2. A[11]:=Z 3. A[11]='Z' ; 4. A['Z']:=11;

33. Which one of the following is not a basic element of a system?

1. Validation 2. Output 3. Input 4. Boundary

34. Which of the following is current regarding phase of the system development life cycle?

- 1. System maintenance is necessary to understand user requirements of the system.
- 2. System maintenance is necessary to correct errors in the system during its life
- 3. System maintenance is carried out before system design
- 4. System maintenance does not require any understanding of the system design or implementation.

35. Which of the following is not a problem that can happen during system development?

1. Estimating cost and time 2. Capturing user requirement
3. Coding programs 4. Marketing the developed product

36. Which of the following is a unique name that identifies a website?

1. Domain name 2. IP Address 3. URL 4. Server

37. Consider the following web address

<http://www.moe.gov.lk>

What is the top level domain name of the above web address?

1. gov 2. lk 3. gov.lk 4. moe.gov.lk

38. Consider the following statements

- A -Internet is the service of www.
- B -A web page consists of a collection of websites.
- C -A web page maybe consists of text, image, audio and video.

Which of the above statements are incorrect?

1. A only 2. B only 3. A,B only 4. All A,B,& C

39. Which of the following protocol is used to transferring HTML documents over the internet?

1. FTP 2. HTTP 3. ICMP 4. SMTP

40. Consider the following image types

- A- gif B- Jpeg C- Png D- bmp


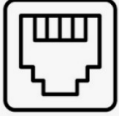
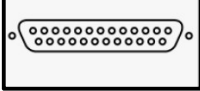

Which of the above image types are lossless?

1. A,B only 2. B,D only 3. A,C only 4. B,C,D only

Answer Five questions only, including first question and four others.

Part II

1. (i) The Sri Lankan public got fuel using in national fuel pass system introduced by Srilankan government. System is used to scan the QR code. This system has been computerized. The system generates a weekly got fuel detail to send the sms.
- a) What is the type of E-Government services?
 - b) Write down one example for an input and one example for an output of the above system.
- (ii) Consider the following diagram with image some computer ports are labeled

Image of the port				
Label	P	Q	R	S

Identify the name of each port using the list given below. Write down the label and its matching port name each port.

LIST :- [USB,Parallel,Serial,VGA,HDMI,Audio,RJ45]

- (iii) Convert 47_8 to its hexadecimal equivalent.
- (iv) Draw the logic gate circuit for the following Boolean expression: $\bar{A}.B + A.\bar{C}$
- (v) Write two main functions of an operating system.
- (vi) Each of the items in column A of the following table can be matched with the items in column B. In your answer sheet, specify those matching pairs with appropriate labels.

A	B
A Domain name.	1 yahoo
B Search engine.	2 www.e-thaksalawa.moe.gov.lk
C . URL	3. Google chrome
D Web browser.	4 . moe.gov.lk

- (vii) Considering the following phrase before and after formatting using word processing software.

Before formatting: H2SO4 - Sulfuric acid





After formatting: **H₂SO₄ - Sulfuric acid**

Write down the word processing software tools required for the above formatting.

(viii) Following table's column A shows a set of tools available in the digital graphic editing software.

Select related task of respective tools from column B.

(answer format :- Column A - Column B)

Column A		Column B	
a		p	Select Connected areas on the similarity
b		q	Inserting text
C		r	Selects the required area as a circular elliptical region
d		s	Copy selected area of a graphic to another

(ix) Consider the following segment in the Pascal program. What is the output it?

```
Sum:=0;
For m := 3 to 5 do
Sum: = sum + m;
Write(sum);
```

(x) What are the main Services of cloud computing?

2. (a) Write down the management tasks of the operating system that are performed on the computer for the events given below. Select the suitable management in the given list.

[Process management, Security management, File management, Network management, Device management, Memory management]

(i) Allocating memory for the process by avoiding any issues.

(ii) Arranging the folders in order

(iii) The operating system support wired or wireless connectivity for hardware in the system.

(iv) Allocating the input and output units related to the functions performed by CPU.

(b) Consider the following statement of presentation software and select the appropriate key word to fill in the blank.

A - kavin the view shows the entire screen as electronic presentation.
(Normal view/ Reading view / slide show/ slide shorter)

B - File extension is used as a when saving an electronic presentation.(ppx / .ppd / .ppt / .ppr)

C - When obtaining new slide is used as the shortcut.

(Ctrl+M / Ctrl+C / Ctrl+V / Ctrl+N)

D - An image in slide to move the image of the slide from left to right. To fulfill above task, we use tool.

(Slide transition / Slide design / Animation / Slide layout)

3. Aaron Bake House is a well-known business that supplies buns to school canteens. The buns are supplied in several schools in their outlets, and they keep a database to get information on the sales of the cafeteria daily.

Table: **Item**

ItemID	ItemName	Price(Rs)
B01	Vegetable bun	60
B02	Fish bun	80
B03	Egg bun	100
B04	Jam bun	70
B04	Tea bun	50

Table :- **School**

SchoolID	SchoolName
2340065	Dharmadutha College
2350143	Naulla Central College
2389745	Passara Central College
2324511	Kendagolla Secondary School,

Table:- **Sales**

Date	SchoolID	ItemID	Amount
01/05/2022	2389745	B02	25
01/05/2022	2340065	B01	100
02/05/2022	2350143	B04	120
03/05/2022	2324511	B02	110

- (i) Write the primary key of the Sales table?
- (ii) Write the foreign keys of the Sales table?
- (iii) Telephone numbers of school canteen have to be entered into the database. What table / tables is appropriate to include in it and write down the appropriate data type
- (iv) Aaron Bake House has sold 200 tea Buns to “Galauda Maha Vidyalaya” (SchoolID: 2321300) school on 25/01/2020. Write down the new record(s) to be added to the relevant table(s) for the above change. Use the table name → (field1,field2,.....) format for each new records.
- (v) What are the appropriate tables to be joined to write a query for the name of the schools given from vegetable bun?

4. The Sri Lankan Government school students population in 2021 details are given below. Grade wise Male, Female, Tamil medium, Sinhala medium and bilingual medium students details are given in this spread sheet.

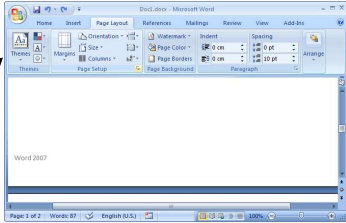
	A	B	C	D	E	F	G	H	I
1	Grade-wise Students of Government Schools by Sex and Medium of Study -2021								
2	Grade	Total Students	Male Students	Male percentage	Female Students	Female percentage	Sinhala Medium	Tamil Medium	Bilingual Students
3	1	319,405	161,853	50.7	157,552	49.3	239,236	80,169	-
4	2	333,128	168,701	50.6	164,427	49.4	247,248	85,880	-
5	3	329,172	166,553	50.6	162,619	49.4	245,318	83,854	-
6	4	333,714	168,609	50.5	165,105	49.5	248,264	85,450	-
7	5	325,228	164,642	50.6	160,586	49.4	241,191	84,037	-
8	Primary	1,640,647	830,358	-	810,289	-	1,221,257	419,390	-
9	6	331,910	166,584	50.2	165,326	49.8	233,568	80,187	18,155
10	7	345,215	165,364	47.9	179,851	52.1	224,687	83,564	36,964
11	8	343,562	163,548	47.6	180,014	52.4	224,568	81,254	37,740
12	9	352,146	166,547	47.3	185,599	52.7	223,568	82,547	46,031
13	Junior Secondary	1,372,833	662,043	-	710,790	-	906,391	327,552	138,890
14	10	321,855	160,548	49.9	161,307	50.1	232,456	80,187	9,212
15	11	302,548	150,364	49.7	152,184	50.3	212,547	80,187	9,814
16	Senior Secondary	2,349,382	1,139,502	-	1,209,880	-	1,574,962	570,473	203,947
17	All Students	5,362,862	2,631,903	-	2,730,959	-	3,702,610	1,317,415	342,837
18	Max								

- (i) Write down the function that should be written in cell B8 to find the total of primary students.
- (ii) Write down the formulae that should be written in cell F5 to find the Percentage of female [percentage=(female students/total students) * 100]
- (iii) Assume that the two formulae entered to the cell D3 and F3 are copied to the cell D14 and F14. Write down respectively the two formulae displayed in cell D14 and F14 .
- (iv) To find the maximum number of Tamil medium students studying inform grade 6 to grade 9 .Write the formulae in the form of = function1(cell1:cell2) .Write down the relevant terms for function1,cell1 and cell2.
- (v) Name the most suitable chart type in spread sheet software to show the students populations of male and female of given Grade in A3 to A7.

5.a) Segment of a word processed document is shown below with some formatting done. These formatting tasks are labeled as A – E. Before formatting all the text in the original document had the same font size.

Introduction to Microsoft Word

Microsoft word is a word processor software developed by Microsoft in 1983. It is the most commonly used word processor software. It is used to create professional quality documents, letters, reports, resumes, etc and also allows you to edit or modify your new or existing document.



C

B(Alignment)

Given below are the basic functions of Microsoft Word:

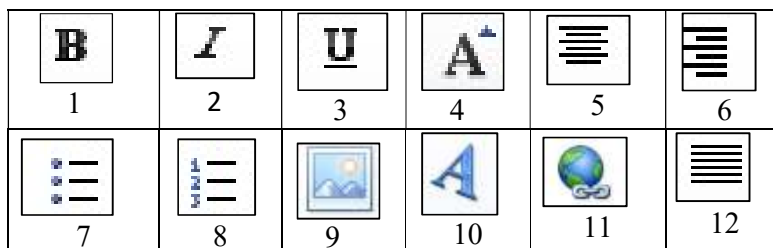
D

- ❖ Creating text documents.
- ❖ Editing and Formatting the existing documents.
- ❖ Making a text document interactive with different features and tools.
- ❖ Graphical documents, comprising images.
- ❖ Used by Authors and Researchers.

<https://www.geeksforgeeks.org/important-features-of-microsoft-word>

E

Following are icons of some formatting tools in a word processing software.



Identify the icons of formatting tools, indicated by the labels 1-12 which are required to do the formatting tasks indicated by the labels A-E. Write down the label of each formatting task A-E and its matching icon label of the formatting tool in the task label → Icon label format.

b) Read the following statements then write “True” if the statement is correct and write “False” if it is wrong. Write your answer question label → True/False format.

- (i) The web server is stores electronic mail and provided them to the client computer.
- (ii) The DNS server is translates URL to IP address.
- (iii) SMTP protocol is used to File exchange.
- (iv) Wanted emails stored in a spam box.

6. The school management committee is planning to introduce a new computerized system for practical exam in ICT subjects. A team has been s assigned to do the development of the above system within a short period.

- (i) What is the most suitable system development life cycle model that the team Should use?
- (ii) Write two user requirement data gathering methods to develop in the system?
- (iii) The Team conducts a testing session to decide whether the newly developed System can be worked or not. What is the test that the team should perform?
- (iv) The development team suggested introducing the new system initially to the grade 6 students. What is the deployment method will be suggested by the development team?
- (v) The School Management committee has decided develop this new system for a long period. What is name of the system development life cycle Model You will suggest?

7) a). Answer the questions based on the following pseudo code:

```
BEGIN
    Count = 0, num = 0
    REPEAT
        READ num
        IF num>0 THEN num = num +1
        Count = count + 1
    UNTIL count >= 10
    DISPLAY num
END
```

(i) Write down the control structures used to the above pseudo code?

(ii) What is the exact purpose of the above pseudo code?

(iii) Write the output of the above pseudo code if the input is as
(12,-4,-6, 3,4,-7,8,-9,11,-5)?

b) The following flowchart reads 20 numbers and display the summation of the even numbers and summation of the odd numbers. Write down the answer to match the labels A to F in the label answer format. →

