Department of Education - Western Province

Third Term Evaluation - 2019

| Grade | 10 | Subject | Information and Communication Technology I, II | Paper | I | Hours | 03 |

* Answer **all** questions.
* In each of the question 1 to 40, pick one of the alternative (1), (2), (3), or (4) which you consider correct or most appropriate

1. As the Disaster Management Centre announces with the heavy rain, the Kelani River is flooded at **the range of 3.9 feet to 4.5 feet showed in the scale.**
   Select the correct expression regarding the bolded text of the above statement.
   (1) It's a qualitative data
   (2) It's a quantitative data
   (3) It includes both qualitative and quantitative data
   (.) It includes both quantitative and qualitative data

2. Select one of the methods to get Government Information from the government services.
   (1) From the Government applications and Gazettes.
   (2) From the Sri Lankan Government website and the Government Information Centre.
   (3) From the map of Sri Lanka and Bank information.
   (4) From Nenasala and e-thaksalawa.

3. Select the main advantage of when applying the video conferencing for the Business transactions.
   (1) Need special place for the video conferencing.
   (2) Un- comfortability to do the conferencing for the persons which are situated in difference place.
   (3) Minimizing travel difficulties.
   (4) Reduced time, effort and cost.

4. In a school there are 8 parallel classes in grade 11. By analyzing the results of the year end examination in these 8 classes, information is taken from only 7 classes. What is the problem generating with above scenario?
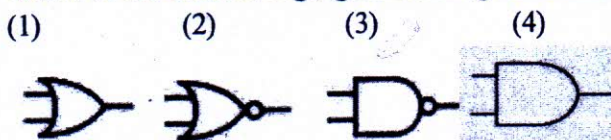   (1) Reluctant of completeness
   (2) Loss of timeless
   (2) Reluctant of relevancy
   (3) Reluctant of accuracy

5. Select the generation which has OS with Graphical User Interface and usage of Multimedia applications,
   (1) For Second generation computers
   (2) For Third generation computers
   (3) For Forth generation computers
   (4) For Fifth generation computers

6. The ECG machine, which is used to observe the functionality of heart is,
   (1) A Micro Computer.
   (2) An Analog Computer
   (3) A Digital Computer
   (4) A Hybrid Computer

7. This is **not** a feature of Universal Serial Bus port,
   (1) Used to connect serial devices for the computer.
   (2) Can connect different types of 127 devices with it.
   (3) Plug and play
   (4) Hot pluggable and hot swappable feature.

8. Which of the following pointing device is commonly used for CAD (Computer Aided Designing) software development?
   (1) Mouse   (2) Track Ball   (3) Joystick   (4) Light Pen

9. Which of the following topology types are combine together to create given topology type in the diagram?
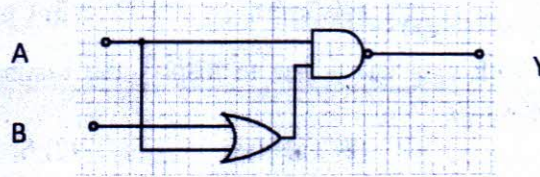
   A. Star Topology
   B. Ring Topology
   C. Bus Topology

   (1) A and B Only   (3) B and C Only
   (2) A and C Only   (4) A, B and C Only

10. Which of the following secondary storage device uses in Digital camera, Mobile phone and with the computer games,
    (1) Magnetic Tape   (3) SD cards/ Secure Digital Card
    (2) Register Memory   (4) USB flash drive

11. Any number of different codes in a number system is considered as, its,
    (1) Units   (2) Number   (3) Digit   (4) Base

12. Which of the following is smallest number?
    (1) 11011101_2 (2) 01001110_2 (3) 001111111_2 (4) 0001110102_2

13. Select the equivalent value of FB_{16} given below,
    (1) 11111011_2 (2) 763_8 (3) 250_{10} (4) 251_8

14. When the ASCII value of letter 'J' is 1001010_2, find the binary equivalent of letter 'E',
    (1) 1000101_2 (2) 1000110_2 (3) 1000111_2 (4) 1001000_2

15. Yasitha, the Head Prefect of Wijaya Vidyalaya has an electronic presentation and photographs of 196524 bits, on the Prefects' Investiture. What is the capacity of the flash drive to store this?
    (1) 1KB   (2) 2KB   (3) 1MB   (4) 1GB

16. Which of the correct Logic gate for the given truth table?
    (1)   (2)   (3)   (4)

X	Y	T
1	1	0
1	0	1
0	1	1
0	0	1

2

17. Select the correct Boolean expression for the given Logic circuit bellow?

(1) $Y = \overline{(A.B)} + A$

(2) $Y = \overline{(A+B).A}$

(3) $Y = \overline{(A.B)+A}$

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

18. There are two switch A and B switches to light a bulb in the living room. When one of the two switches is switched on, the bulb is on. When both switches are on the bulb is turn off. Select the correct Boolean expression for the above scenario.
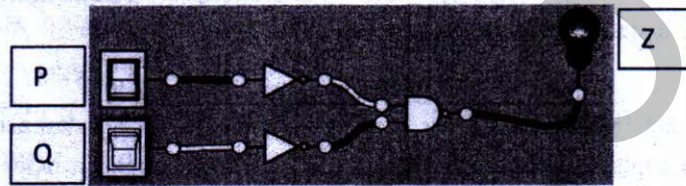
(1) (NOT (A) AND B) OR (A AND NOT (B))

(2) NOT (A AND B) OR NOT (A AND B)

(3) NOT (A OR B) AND NOT (A OR B)

(4) (NOT (A) OR B) AND (A OR NOT (B))

19. The truth table for the circuit diagram is given below. Which of the following values are suitable for A and B, according to the P and Q inputs.

P	Q	Z
1	0	1
0	0	A
0	1	1
1	1	B

(1) 0 and 0

(2) 0 and 1

(3) 1 and 0

(4) 1 and 1

20. Which of the following statement/s is/are correct for the given Boolean expression?

$$F = (A + B) . C$$

A. When the value of C is 0 the value of F also 0.

B. When value of A is 0, if B and C is 1 then F is 0.

C. If A, B and C is 1 then F is 1.

(1) A only

(2) C only

(3) A and B only

(4) A and C only

21. Which of the following utility software uses to get the information regarding current program in execution?

(1) Disk Scan

(2) Task Management

(3) Clipboard

(4) Device Diver

22. Which of the following is **incorrect** statement?

(1) OS create the relationship between user and the computer Hardware.

(2) OS is a language translator Software.

(3) One of the functionality of OS is security Management.

(4) Basic Input and Output System Software (BIOS) are situated in Read Only Memory.

23. Which is **not** the functionality of the process management of operating system?

(1) Memory allocation

(2) Deleting unnecessary files.

(3) Allocate Time in the central processing unit as needed for processes

(4) Reservation of input and output units for processes.

24. Which of the following is a true statement regarding to the folder in computer?

A. Able to change the name of the folder.

B. Able to store different types of files inside the folder.

C. Unable to change the locations of the folders in the computer.

(1) A and B only

(2) A and C only

(3) B and C only

(4) All A, B and C

25. Which of the following short cut key combination uses to replace the word by another word in Word Processing Software?

(1) Ctrl+H   (2) Ctrl+X   (3) Ctrl+A   (4) Ctrl+N

26. Which of the following bar is use to display the number of pages of the document in Word Processing Software?

(1) Status bar   (2) Title Bar   (3) Scroll Bar   (4) Ribbon

27. Which of the following is **not** a facility of Word Processing Software?

(1) Mail merge

(2) Able to change the orientation of the page in vertical axis.

(3) Able to separate the columns in the documents.

(4) Able to animate the objects in a document.

28. Consider the following tools in a word processing Software?

A.   B.   C.

Which of the precisely shows the function of the above tools?

(1) A-line spacing

   B-Transfer capital letters to simple

   C-undo

(2) A-line spacing

   B-Transfer capital letters to simple

   C-Redo

(3) A-indentation

   B-Bold

   C-Redo

(4) A-indentation

   B-Transfer capital letters to simple

   C-undo

29. What is the value display in the cell when you enter the formula = (5-3)*6^2 in a spreadsheet.

(1) 144   (2) 72   (3) 6   (4) 24

- **Use the following spreadsheet to answer question numbers 30 to 32.**

	A	B	C	D
1	X	Y	Z	
2	2	2		
3		3		
4		4		
5		5		
6				

30. Select the suitable formula which is used to find the value of Z in the function $Z=2X^2+ Y + 3$ in cell C2. That formula should be valid for the other cell up to C5.

(1) =2*A$2^2+B2+3   (3) =2A2^2+B2+3

(2) =2*A2^2+B2+3   (4) =2*A2^2+B2+3

31. What is the formula that displays in cell C3, when the formula of cell C2 is copied to cell C3.

(1) =2*A3^2+B3+3   (3) =2*A2^2+B2+3

(2) =2A3^2+B3+3   (4) =2*A$2^2+B3+3

32. Which of the following is the most suitable formula/s which is used to find out the number of entries from cell A2 to cell B5?

A=SUM (A2:B5)

B=COUNT (A2:B5)

C=COUNT (A2, B2:B5)

(1) A only

(2) B only

(3) B & C only

(4) All A, B & C

4

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බස්නාහිර පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව
மேல் மாகாணக் கல்வித் திணைக்களம்
Department of Education - Western Province

තෙවන වාර ඇගයීම
ஆண்டு இறுதி மதிப்பீடு - 2019
Third Term Evaluation

| ශ්‍රේණිය
தரம்
Grade | 10 | විෂය
பாடம்
Subject | Information and Communication
Technology I, II | පත්‍රය
வினாத்தாள்
Paper | II | කාලය
மணித்தியாலம்
Hours | 03 |

- Answer **first** question and **four** others.
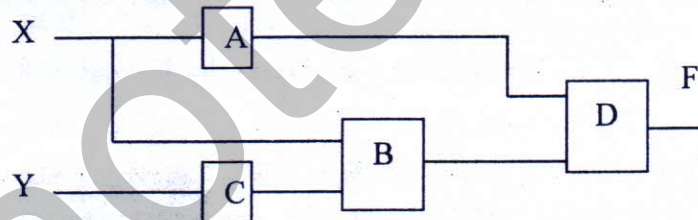- First question carries **20** marks and each of the other questions carries **10** marks.

1.

(i) Name two types of Printers with an example for each.

(ii) Consider the given right side column and left side column. Match the labels 1-4 with the labels P- Q and write down only the labels on your answer sheet.

① - Charles Babbage	P. ENIAC
② - Blais Pascal	Q. Assembly Language
③ - First Generation	R. Adding Machine
④ - Second Generation	S. Analytical Engine

(iii) Find the Hexadecimal equivalent of 635_8. Write down respective steps.

(iv) Fill in the space (A, B, C, D) of the given circuit diagram, according to the given Boolean expression.

$$F = (X + \bar{Y}).X$$

(v) Fill in the blanks by using the most suitable words from the given list below.

(a) _____ can use to connect two different Networks together.

(b) In data transmission, hub uses _____ mode.

(c) Bluetooth is the one of the example for _____ data transmission.

(d) _____ data transmission medium is use the reflected light beam for the data transmission.

(Radio waves, fiber optic, Router, Half Duplex, Full Duplex, Infrared)

(vi) Name two most suitable graph types for compare the marks of each students in given spreadsheet.

	A	B	C	D	E
1	ST_ Name	Maths	Science	ICT	Total
2	Ravi	45	40	60	145
3	Kasun	62	69	72	203
4	Meena	37	40	50	127
5	Kumari	80	87	95	262

1

33. Which of the following is the incorrect statement regarding electronic presentations?

   (1) Able to do slide numbering

   (2) Unable animate images on a slide

   (3) Able to insert audio clips to the slides

   (4) Able to change the orientation of the slides

34. Which of the following device is **not** used to present a presentation to an audience at once?

   (1) Overhead projector

   (2) Slide projector

   (3) Personal computer

   (4) Multimedia Projector

35. Which of the following statements is incorrect regarding electronic presentations?

   A. You are able to use cloud based services if even though you do not have any office packages.

   B. '' Libre office impress'' is an example for proprietary software

   C. We are able to use different transitions when one slide changes to another

   (1) A only   (2) B only   (3) A & C only   (4) All A, B and C

36. Which of the following short-cut key combination is used to present the presentation software?

   (1) F1   (2) F5   (3) ctrl + E   (4) ctrl + R

- **Questions 37-40 are based on the following relational database tables.**

Employee table

employee_no.	name	post	Date of birth
E001	Asela Kure	adviser	1998/05/01
E002	Hashini Gamage	lecturer	1980/07/20
E004	Kumara Ranathunge	clerk	1982/02/12

Salary table

employee_no.	Salary date	Total salary	bonus	loan	Net salary
E001	2019/01/25	50000.00	12000.00	8000.00	54000.00
E001	2019/02/25	50000.00	5000.00	8000.00	47000.00
E002	2019/05/25	89000.00	30000.00	45000.00	64000.00
E004	2019/05/25	38000.00	2000.00	20000.00	20000.00

37. Hashini's salary for 2019 may is,

   (1) 54000.00   (2) 47000.00   (3) 64000.00   (4) 20000.00

38. How many records and fields are in the employee table?

   (1) 4, 3   (2) 6, 4   (3) 3,4   (4) 4,6

39. What is the relationship between employee table and salary table?

   (1) one – to – one relationship

   (2) one – to many – relationship

   (3) many – to many - relationship

   (4) employee – salary relationship

40. What are the data types of employee_no, name, and date of birth in employee_table respectively?

   (1) number, text, number

   (2) number, text, date/time

   (3) text, text, date/time

   (4) text, text, auto number

10 - ICT I

(vii) Write down the two problems that may occur due to data redundancy with the development of the Data base.

(viii) Consider the following strategies labeled as A, B, C, and D.

        A- Joy Stick

        B- Digital Camera

        C- Microphone

        D- Touch screen

Write down whether each of the above devices can perform both input and output.

(ix) Mention an open source operating system which can be used in a mobile phone.

(x) State 2 ways that can be used to protect one's privacy when using social media websites.

2.

(i) Convert 255_{10} into hexadecimal with the respective steps.

(ii) Write the BCD value of the decimal number 439.

(iii) Copy the following table into your answer sheet and fill in the blanks.

Coding system	Bits used	Number of characters displayed
———	4	
ASCII	———	———
———	16	65536

(iv) Write the Logic Circuit and the Truth Table for the following Boolean Expression.

$$F = (\overline{A \cdot B}) + C$$

3.   (i)

Sri Lankan Jungle Fowl

A

B

C

The Sri Lankan Jungle fowl (*Gallus lafeyetii*) was first described in 1831 by Lesson and is a member of the family Gallus, the same family as the domestic chicken. The ancestor to all domestic chickens is the Red Jungle fowl (*Gallus gallus*). It has the distinct honor of being the national bird of Sri Lanka and is depicted in postage stamps etc.

There are 4 species of Gallus so far recorded from Asia.

- The Red jungle fowl (*Gallus gallus*),
- The Grey jungle fowl (*Gallus sonneratii*),
- The green jungle fowl (*Gallus varius*)

D

The Sri Lankan jungle fowl (*Gallus lafeyetii*). *The Sri Lanka Jungle fowl is endemic to Sri Lanka, and is not found anywhere else in the world.*

Figure 01

The figure 01 above is prepared using word processing software. Referring the above image and the tools of word processing software, state whether the following statements are true or false.

1. Tool ⬛ is used to prepare the topic as shown in label A.

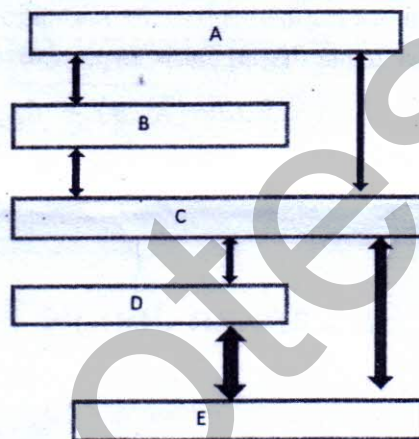2. Tool ⬛ is used to change letter T as shown in label B.

3. An image can be inserted as shown in label C using wrap text.
4. The list shown in label D can be changed into a numbered list.
5. Tool [ ] can be used to copy the word *Gallus* into a different location

(iii) If an invitation or a letter is being prepared to be sent to several people.
   a. What is the tool used in word processing software to fulfill this task?
   b. What should be created in order to store data relevant to the letter when using this tool?
   c. Write the function for each of the following shortcut keys.
      A. Ctrl + H
      B. Ctrl + A
      C. Ctrl + END
      D. Ctrl + N

4.

i. The figure below illustrates the relationship between the computer and the user. Please select the appropriate words for the blank spaces.

(Hardware, Operating system, Application system, Other system Software, User)

ii.
a. Match the two columns A-B with P-S by considering view type and the relevant description in electronic Presentation.(only labels should use to write the answer)

	View type		Description
A	Normal view	P	In this view you can see the slide the same way as it is displayed on the screen.
B	Slide Sorter View	Q	You can view the selected slide on the full screen.
C	Reading View	R	You can create the presentation in this view.
D	Slide View	S	All the slides of the presentation are displayed together as mini slides.

b. Write down the one of the feature that should include in high quality electronic presentation.

5. A bill of goods purchased from the "Munasinghe Textile" Store is shown below. Use it and provide answers for the following questions.

	A	B	C	D	E
1	Item Number	Name	Unit Price	Quentity	Price
2	1020	Towels	750	1	750.00
3	1092	Bed Sheets	1200	10	12000.00
4	1120	Pilowcases	580	3	1740.00
5	1315	Socks	250	2	500.00
6				Total Price	14990.00
7			Discount	3%	449.70
8			Payable Amount		14540.30

(i) According to the above spreadsheet what formula should be written in the E4 cell in order to find out the cost of purchasing Pillowcases?

(ii) What is the most appropriate formula which can be used to display the total amount in the E6 cell?

(iii) The shop offers a 3% discount on the bill and the amount is displayed in D7 cell. What is the formula that should be written in the E7 cell to display the discounted amount in the E7 cell?

(iv) What is the formula that should be written in E9 cell to find out the total amount payable? (Total amount payable= total amount – discounted amount)

(v) Since the computer used to issue the bills was defunct, it was decided to use another computer for this purpose but the spreadsheet software was not available in that computer. Write 02 ways that you can propose to use that computer to prepare the bill and print it.

6. Some of the items in the Green school Multimedia Unit is provided for use in various programs within the school and stored in a database. The following are 3 tables included in it.

Item_table

item_no	item_name	quantity
M001	microphone	05
M002	laptop	02
M003	Multimedia projector	01
M004	screen	01

Borrower_table

consumer_no	name	description	class
1528	Niluka perera	student	10A
5200	Chathuri nanayakkara	student	12C
150	Samanthi livera	teacher	12A
64	Palitha pathiraja	teacher	-

Consumer goods table

retrieval date	item_no	consumer_no	Delivery date
2019/05/02	M002	150	2019/05/05
2019/02/10	M003	1528	2019/03/10
2019/04/12	M003	5200	2019/04/12
2019/07/05	M004	64	2019/07/06

(i)   Name two primary keys used in this database and their table names.

(ii)   Name two foreign keys used in this database with their table names.

(iii)   Multimedia unit bought a new router and include it's details in the database.

    a. what is the table(s) that should be updated.

    b. write the rows with the relevant table that are updated.

(iv)   Hashini Mangala who is a new teacher came to school gains a laptop on 2019/07/25.

    a. What tables that should be updated?

    b. Draw the table rows that are updated.

(v)   If a primary key is not used in the item_table what are the issues that will arise? Explain.

7. (i)   Information and Communication Technology has had many impacts on agriculture. One of the opportunities is to use ICT for farming. Name two instances where it is used and briefly describe its function.

(ii)   Nipuni, who works as a teacher, receives banking services through an e-banking system. She uses the facility and does all her banking.

    (a) Name two services available to her through the e-banking system.

    (b) She engages in online shopping and purchases goods using the facilities provided by the e-banking system. Write down two procedures that she needs to follow to make a safe transaction.

(iii)   Write an example for each of the following types of secondary memory.

    (a) Magnetic Media Devices

    (b) Optical Media Devices

    (c) Solid State Devices

(iv)   Suggest an appropriate method to increase the efficiency of the computer?

10 ICT - II