



G.C.E. (O.L) Practice Test - 2019
Department of Education – North Western Province

(80) Information and Communication Technology II

Two hours
Grade 11

***Important**

- i. Answer only 5 questions including first question
- ii. Mention clearly the question numbers and sub question numbers in the answer script.

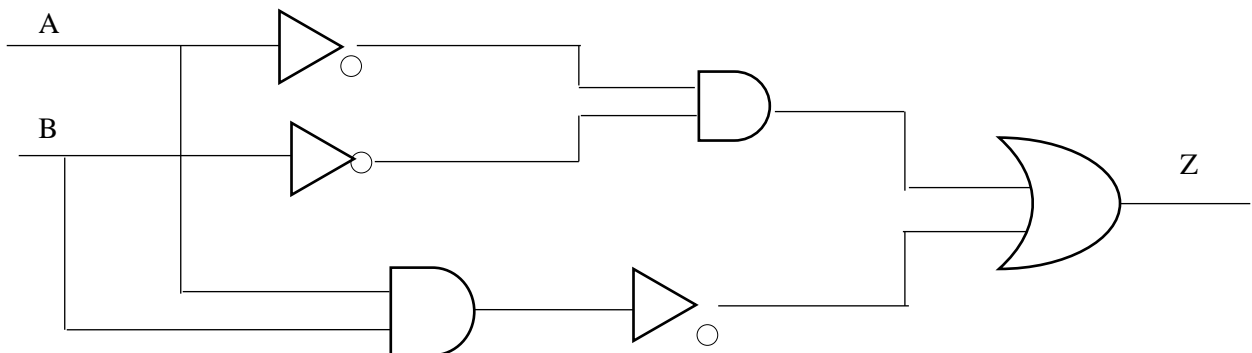
(1)

- i). Amal selected the goods he wanted from a super market, and gave to the cashier. The cashier inserted the price of each good using the Barcode reader and calculated the total amount should be paid. After Amal paid the amount using the credit card, the cashier gave the printed bill to Amal. Then, Amal received the SMS to his mobile phone, generated by the information system of the super market regarding this transaction.

Mention an input, a process and an output related to the above scenario.

- ii). A student bought 2 pens and a book from a book shop. The price of a pen is C_{16} rupees and a book is $5B_{16}$ rupees. Calculate the total amount the student should pay in Decimal.

iii).






Write the output of Z in the above circuit.

- iv). Devices used in computer networking and their usages are given in the following table. Match the device with its usage. (Mention only the device number and the letter given for the usage)





| Device | | Usage | |
|--------|------------------------|-------|--|
| 1 | Network Interface Card | A | To connect two or more computer networks. |
| 2 | Switch /Hub | B | Build up a computer network using radio waves. |
| 3 | Router | C | Establishing the connection of the computer with the computer network. |
| 4 | Wi-Fi adapter | D | Connects two or more computers. |

- v). Briefly mention the influence of fragmentation of a Hard disk when storing data .

vi). Select the tool, which can be used to perform the given functions in Word processing software.(Mention only the function number and letter of the tool)

| Function | | Tool | |
|----------|---------------------------------------|------|---|
| 1 | To change the space between lines | A |  |
| 2 | To increase the thickness of letters. | B |  |
| 3 | To insert a hyperlink to a document. | C |  |
| 4 | To save a document | D | B |

vii). Match the tool with the task performed by that tool. (Mention only the tool number and letter of the task.)

| Tool | | Task | |
|------|---|------|---|
| 1 |  | P | To cut the image as required |
| 2 |  | Q | To indicate the distance and angle |
| 3 |  | R | To select a part of the graphic using the mouse |
| 4 |  | S | To darken a selected part of a graphic. |

viii). Consider the expressions given about the URL - [http://www.nie.lk/syllabuses/sinhala/ grade10/ ict.pdf](http://www.nie.lk/syllabuses/sinhala/grade10/ict.pdf), and state whether following expressions are true or false. Mention only the label of the sentence with your answer.

- A. WWW is the service
- B. nie.lk is the top level domain name
- C. ict.pdf is the home page of the web site.
- D. the location of the resource is /syllabuses/sinhala/grade10/ .

ix). Mention an advantage and a disadvantage of conducting an examination online compared to the traditional way.

x). The faces of a cube is labeled as A , B , C , D . It is tossed ten times and the letter of the face obtained is stored in an array called 'X'. Write the suitable terms to fill in the blanks given in P, Q, R labels in the following algorithm to find out the number of instances the letter 'A' is received when tossed.

```

begin
count = 0
i = 0
while i <= ...P.....
    if x [...Q...] = A then
        ...R.... = count +1
    end if
i = i + 1
end while
display count
end.

```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| A | B | C | A | D | A | B | C | A | D |

(Marks 2 x 10 = 20)

2) A).

- i. Social media web sites can be considered as a popular way of communication among individuals living in different places in the world.
 - a. Mention two social media web sites you know. (1 Mark)
 - b. Write two services available in social media web sites. (1 Mark)
 - c. Social media web sites have become harmful to the society as they are being misused. Such incidents are called cybercrimes. Mention two cybercrimes. (1 Mark)
 - d. State two steps of using social media safely. (1 Marks)
- ii. Electronic products are discarded as e-waste at the end of their lifetime.
 - a. State two health hazards faced by people due to improper disposal of e-waste. (1 Mark)
 - b. Write two methods can be followed to dispose e-waste safely. (1 Mark)

B). Harmful software to computer systems(A,B,C), the nature of harm (P,Q,R) and the precautions to avoid those harms (X,Y,Z) are mentioned below. Match the harmful software and nature of harm with the suitable precaution using the given labels. (3 Marks)

| Harmful software |
|-------------------------|
| A - Spyware |
| B -Bots |
| C- Phishing |

| Precautionary measures |
|---|
| X – Avoid opening doubtful emails or clicking on hyperlinks. |
| Y – Scanning via an anti-virus software before downloading documents or software. |
| Z – Avoid entering personal data to web sites without confirming the security. |

| Nature of the Harm |
|---|
| P - Deceives users using emails to collect information about bank accounts or electronic accounts and steal deposits in accounts. |
| Q - Enters to the computer unknowingly showing itself as authentic and steals or deletes data. |
| R - Collects personal information through instant messages and online conversations. |

3) (A).

The HTML tags required to create following web page are mentioned below. Select the suitable term given within brackets to fill in the blanks. Write only the number and the relevant HTML code in your answer script.



DALADA MALIGAWA - SRI LANKA



Sri Dalada Maligawa or the Temple of the Sacred Tooth Relic is a Buddhist temple in the city of Kandy, Sri Lanka. It is located in the royal palace complex of the former Kingdom of Kandy, which houses the relic of the tooth of the Buddha. Since ancient times, the relic has played an important role in local politics because it is believed that whoever holds the relic holds the governance of the country. Kandy was the last capital of the Sri Lankan kings and is a World Heritage Site mainly due to the temple.

Dalada Maligawa - Theva Times

| Thevava | Time | |
|--------------------|-------------|----|
| Morning Thevava | 5.30- 7.00 | AM |
| Ninth hour Poojava | 9.30- 11.00 | |
| Evening Thevava | 6.30- 8.00 | PM |

```

<html>
<head> <1>Sri Dalada Maligawa</1> </head>
<body>
  <h1><2>DALADA MALIGAWA - SRI LANKA</2></h1>

  <3></3>

  <p 4="justify"><font 5="Times New Roman" size="10" 6="blue">Sri Dalada Maligawa or the
  Temple of the Sacred Tooth Relic is a Buddhist temple in the city of Kandy, Sri Lanka. It is located in the
  royal palace complex of the former Kingdom of Kandy, which houses the relic of the tooth of the Buddha.
  Since ancient times, the relic has played an important role in local politics because it is believed that
  whoever holds the relic holds the governance of the country. Kandy was the last capital of the Sri Lankan
  kings and is a World Heritage Site mainly due to the temple.</font></p>

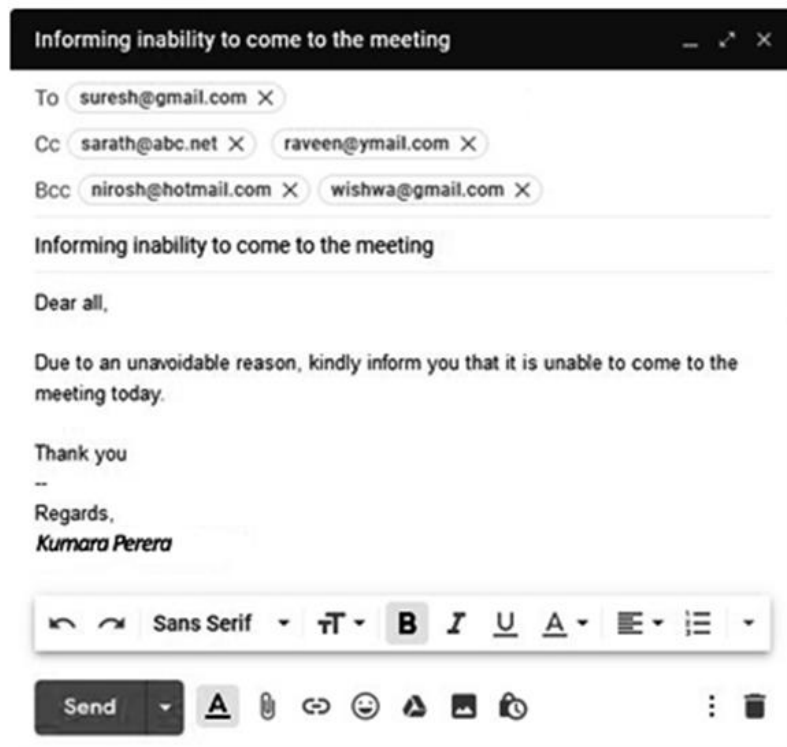
  <table 7="1">
    <8>Dalada Maligawa - Theva Times</8>
    <tr><9>Thevava</9><9 10="2">Time</9></tr>
    <tr><11>Morning Thevava</11><11>5.30- 7.00</11><11 12="2">AM</11></tr>
    <tr><11>Ninth hour Poojava</11><11>9.30- 11.00</11></tr>
    <tr><11>Evening Thevava</11><11>6.30- 8.00</11><11>PM</11></tr>
  </table>
</body>
</html>

```

(i, center, caption, face, color, title, align, border, rowspan, th, colspan, td)

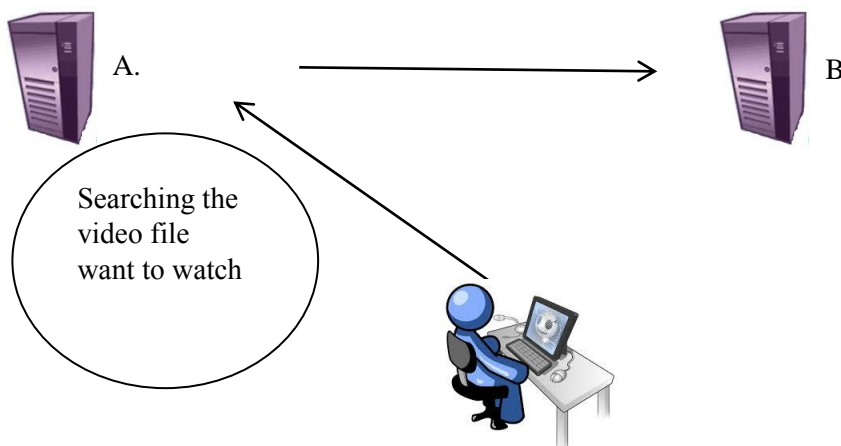
(ලකුණු 6)

(B). Provide short answers based on the composed email message given below.



- i. What are the other email addresses, the email address holder of 'sarath@abc.net' can see, as the recipients of this message? (Mark 1)
- ii. What are the other email addresses, the email address holder of 'nirosh@hotmail.com' can see, as the recipients of this message? (Mark 1)

(C). An incomplete diagram that represent the process of watching a video from **www.youtube.com** web site is given below.



- i. Write the devices represented by A and B. (1 Mark)
- ii. From A or B , where is the **www.youtube.com** hosted ? (0.5 Marks)
- iii. "The user receives a file from B through A." Do you agree with this statement?

- 4) (A). 'Sumithuro' is a local organization provides funds for poverty alleviation projects, which is funded by foreign organizations and personals.

| | A | B | C | D | E |
|----|--|-------------------|--------------------|---------------------------|-------------------|
| 1 | Income and expenditure in August 2019 | | | | |
| 2 | Income | | | Expenditure | |
| 3 | Income category | Amount(\$) | Value (Rs.) | Project | Value (Rs) |
| 4 | Mitsu Japan Corporation | 7000 | 1400000 | Ran Diya Dahara | 1500000 |
| 5 | Melbourne Cricket Society | 5000 | 1000000 | Sisu Sahana | 750000 |
| 6 | Omega Corporation | 3000 | 600000 | Self -employments | 2000000 |
| 7 | Arostar Football Corporation | 10000 | 2000000 | | |
| 8 | | | | | |
| 9 | Total income | 25000 | 5000000 | | |
| 10 | Expenditure of total projects | 4250000 | | Exchange rate US\$1 (Rs.) | 200 |
| 11 | Balance in August | | | | |

- Exchange rate is the value of US \$ 1 in Rupees.

- i). Write a formula to calculate the total income in cell B9 according to the given format. (1 Mark)

=function (cell1:cell2)

- ii). Write a formula to calculate the amount in rupees granted by Mitsu Japan Corporation in cell C4 using only cell references. (This formula should be able to use to calculate the values granted by other agents as well.) (2 Marks)

- iii). The formula to calculate the total expenditure of projects is given in the cell B10 is according to the following format.

= function 1 (cell 1:cell2)

Write suitable terms for *function 1*, *cell 1* and *cell 2*. (2 Marks)

- iv). Write a formula to calculate the balance of Sumithuro Organization in the month of August in cell B11 without using functions. (1 Mark)

(B)

- i) Write suitable names of the following tools using the names given within brackets. (2 Marks)



(Notes Master, Normal view, Slide sorter view, Reading view)

- ii. State whether the following expressions are true (✓) or false (X). (2 Marks)
- Slide transition can be used only for navigating from one slide to another. ()
 - A new slide can be inserted to a presentation using Ctrl + N shortcut key combination ()
 - Slide Layout can be used to apply animations to texts and images in a slide ()
 - During a slide show, the key ' N ' can be used to navigate to the next slide ()

- 1) Open Sale company provides facilities for customers to order and purchase goods online. Followings are some extracted data in data tables of the databases managed by the company.

| Customers | | |
|-----------------|---------------|------------|
| Customer_number | Name | Contact_No |
| 101 | A.R. Perera | 0771586954 |
| 102 | K.P. Kumari | 0785487521 |
| 103 | J.A. Kamalani | 0717748542 |

| Distribution officer | |
|-------------------------|-------------|
| Distribution_officer_No | Name |
| Dis_10 | R. Kurera |
| Dis_11 | M. Mohomed |
| Dis_12 | A. Surendra |

| Orders | | | |
|----------|-------------------|-----------------|-------------------------|
| Order_No | Order | Customer_number | Distribution_officer_No |
| A1002 | B9x Digital watch | 101 | Dis_10 |
| A1005 | A3S Mobile Phone | 102 | Dis_10 |
| A1007 | PxJ Printer | 103 | Dis_11 |
| A1008 | J7P Hard Disk | 103 | Dis_12 |

There are relationships established among the tables in the database.

- Mention two primary keys with the table names. (1 Mark)
 - State whether the relationship between Customers table and Orders table is One to One, One to Many or Many to Many? Give reasons. (3 Marks)
- i) A foreign key is used to create relationships among tables.
- Define what is a foreign key using above tables and give an example for a foreign key in the above database. (2 Marks)
 - The customer, F. Perera having the number 104 and the contact number 077 2050657 ordered IG keyboard under number A1009. This is distributed by R. Kurera. According to this incident,
 - Mention the table/ tables which should be updated. (2 Marks)
 - Updated the table /tables accordingly with new data. (Mention the new records only.) (2 Marks)
- 6) i) Janahitha Insurance Corporation provides insurance facilities such as life insurance, Vehicle insurance, and Property insurance. They face many problems when they provide services using a manual information system. The management has decided to launch a computer based information system in order to perform internal activities efficiently and provide a quality service for customers.
- Write two weaknesses of manual information systems compared with the computer based information systems. (1 Mark)
 - This computer based information system can be accessed online. Mention a main advantage the customers can obtain by this facility. (1 Mark)
 - Write two advantages of launching the new system to the administration of Janahitha Corporation. (2 Marks)

d) Write three methods suitable for testing the new system. (1.5 Marks)

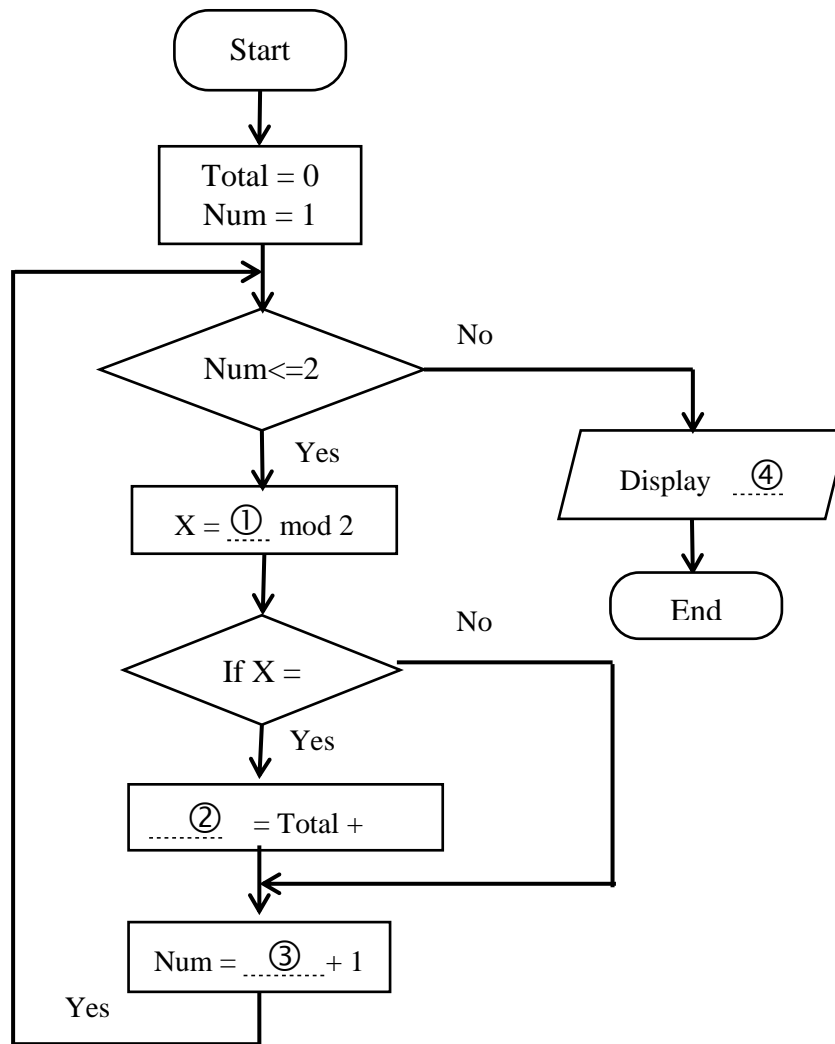
e) “Janahitha Corporation wants to perform their financial operations through the new system but they have not clearly mentioned their all requirements. Therefore the waterfall model is suitable for developing the new system.” Do you agree with this? Give reasons. (2 Marks)

ii) Consider the following expressions about developing a computer based information system given in the columns X and Y.

| X | Y |
|--|--|
| 1. A data collection method for identifying user requirements. | A. The final stage of testing and debugging. |
| 2. A main task in system designing. | B. Examining reports and documents. |
| 3. A task in system maintenance stage. | C. The overall implementation of the system depends on the performance of the system in the selected sample. |
| 4. An advantage of pilot deployment. | D. Changing the system according to new requirements. |
| 5. A system is tested for user acceptance. | E. Deciding the suitable hardware or software to implement the system. |

Match the expressions given in X column with the expressions given in Y column (Write only the numbers and letters in your answer script) (2.5 Marks)

7). Following flowchart represent the total of Even numbers from 1 – 20.



- i) Write suitable expressions for blanks labeled as 1, 2, 3, 4 in the flowchart (4 Marks)
- ii) Which is the nested control structure this flow chart belongs to? (1 Mark)
- iii) Write a pseudocode for this flowchart. (5 Marks)