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Second Term Test – 2017
இரண்டாம் தவணை பரீட்சை -2017

| 11 වසර
தரம் 11
Grade 11 | තොරතුරු හා සන්නිවේදන තාක්ෂණය **II** පත්‍රය
தகவல் தொடர்பாடலும் தொழினுட்பவியலும் வினாத்தாள்-II
Information & Communication Technology Paper II | පැය දෙකයි
இரு மணித்தியாலம்
Two Hours |

Note: * *Answer question one and four others.*
        * *Fist question carries 20 marks, others 10 marks each.*

1.
    I.   Convert the hexadecimal number D8 to equivalent octal number.
    II.   Draw a logic circuit to the Boolean expression $\overline{(A.B)} + (C + D)$
    III.   Certain company decided to store their business documents in cloud based (online) drive
          a.   Write one advantages of using cloud based drive.
          b.   Write one disadvantages of using cloud based drive.
    IV.   Select the examples from the list given below and match with the Item labeled A to D
          A.   Operating System.   B.   Programming language.
          C.   Application Software.   D. Utility Software .

          List   [Java, word perfect, Disk formatting, Android]
    V.   Identify whether the word in bold letters are **data** or **information** in the following statement and state using the labels
       •   Just after scanned the (A) **QR code** on an item the (B) **web site related the item** is displayed.
       •   **(C) Date of birth** can be obtained by analyzing the (D) **national Identity Card number**
    VI.   State following statements labelled A to D are correct or incorrect. You need only write the label and mention whether it is correct or incorrect .
          A.   HDMI port can be used to connect monitor.
          B.   The external modem can be connected to the serial port.
          C.   Speakers can be connected to the computer using sound port in red colour.
          D.   The mouse can only be connected using PS/2 port.

    VII.   Write two disadvantages of Computer networking.
    VIII.   What is assembler?
    IX.   Write the output of following HTML code.
    <h1>Nationalities in Sri Lanka</h1>
    <ol type = "1">
        Sinhala
       <li type = a > Tamil
        Muslim
        Burgher

    X.   "Installing software of server computers to client computers and Fixing problems on client computers. Are the facilities provided by .... service of the internet". What is the suitable word for the blank

XI. When input 5 for x what is the output of the following pseudo code.

```
Begin
        Get x
        y = 2
        While (y < 3)
                y = y + 1
                x = x + y
        End while
        Print x
End
```

2. Deshan fruit stall uses a spreadsheet to make success of their business. The cells in the spreadsheet contain different types of information. The part of the spreadsheet is as shown below.

	A	B	C	D	E	F	G
1	No	Item	Qty	Purchased Price	Price marked for sale	Profit from one Item	Amount of Profit
2	112	Mango	20	30	33	3	60
3	113	papaw	30	100	110	10	300
4	114	banana	60	10	11	1	60
5	115	apple	70	50	55	5	350
6	116	Wood apple	100	20	22	2	200
7	Total		280				970
8	Number of Items		5				
9	Maximum amount		100				
10	Expected percentage of profit from one item		10%				

 i. What should be the formula in cell C7 to find the total number of fruits they purchased?
 ii. Cell C8 and C9 contains the number of different types of fruits and the highest number of fruits purchased from one type out of the purchased. What are the formulas should be there.
 iii. Price marked for sale should be certain percentage to the purchased price. Expected percentage of profit from one item is included in cell C10. What should be the formula in cell E2 to find the Price marked for sale? This formula should have the capability of get the "Price marked for sale" of other fruits.
 iv. Cell F2 contain Profit from one Item of mango and Cell G2 contain profit expected from all. What are the formulas should be there.
 v. The formula in cell C7 is copied in to cell G7 to get the total profit. What would be the formula in cell G7.
 vi. What is/are the cell/cell range which will be change if the percentage in cell C10 change to 5%.

03 Mr. Perera is a businessman. At present he uses a manual system for his business. He decided to install a computerized information system to achieve success in his business.

   I. What is system?
   II. Write two difficulties he may be faced while using manual system.
   III. Following two table shows four steps in SDLC and few examples related with the SDLC. Match steps with the examples related.

Steps of SDLC		Examples	
A	Coding of the solution	E	Creating data bases and user interfaces
B	Designing the solution	F	Assign the programmers to develop software of the proposed system,
C	Identification of requirements	G	use the new system together with the existing system.
D	Deployment of the system	H	Use the current document for gathering user needs

    IV.   state two instances which system development team need to be involved with the system maintenance.
    V.   State two disadvantage of waterfall model of system development.

04.   (a)   Fill in the blanks using the terms given below.
    [Operating system, mouse, Application software, Linux, , RAM, Secondary storage, switch, Utility software]

    i. …………….. is an example for volatile memory.
    ii. …………… provides user interfaces between hardware and user.
    iii. …………… is a computer network connectivity device.
    iv. functionality of Trackball is almost similar to ……………..
    v. …………….. enhance the the functions of operating system .

    (b)   Identify and write down the facilities labelled as P,Q,R,S,T,U in following word processing document.

Academy award

P

The Academy Awards, informally known as The Oscars, are a set of awards given annually for excellence of cinematic achievements. The Oscar statuette is officially named the Academy Award of Merit and is one of nine types of Academy Awards. The

Academy Awards ceremony is also the oldest award ceremony in the media; its equivalents, the Grammy Awards (for music), *Emmy Awards* (for television), and Tony Awards (for theatre) are modelled after the Academy.

Q

S

R

Current special categories

- ❖ Academy Honorary Award: since 1929
- ❖ Academy Scientific and Technical Award: since 1931
- ❖ Gordon E. Sawyer Award: since 1981

T

AWARDS & HONORS

U

(c)   What is the facility available in word processing software to send same format letter to multiple recipients with their own particulars?

(d)   Write two things need to be considered when making a good presentation.

5.   Mr.Perera is a whole sale dealer. He uses a database for Vegetables and Suppliers supply them . A Supplier can supply number of Vegetables where as Vegetables can be supplied by number of suppliers. Part of this file is shown below.

Vegetable_Code	Vegetable	Supplier_ID	Date_Supplied	Supplier
B100	Beans	Sup1	01/02/17	Malan
B101	Beetroot	Sup1	01/02/17	Nuwan
B102	Cabbage	Sup2	12/03/17	Dinesh
B102	Cabbage	Sup3	25/03/17	Asanka
A103	Potatoes	Sup4	12/04/17	Parakrama
A104	Pumpkin	Sup5	12/04/17	Sampath
A104	Pumpkin	Sup6	09/05/17	Thushara
C105	Tomatoes	Sup2	12/05/17	Sadun

I.   How many fields and records are there in this table?
II.   State suitable data type for each fields.
III.   What is the key/combination of keys that can be use as primary of above table?
IV.   State main weakness you can see in this table.
V.   Mr. perera is advised to keep three tables to eliminate the weakness. State separately the fields can be included in each three tables and suggest suitable name for them?.
VI.   What is the relationship that exists between Supplier_ID and Vegetable_Code.

6.   a) Following is a pseudo code to load containers to a ship

```
begin
        tot = 0
        while tot < 100
                Display ("Enter container weight")
                Get (weight)
                if weight <= 10 then
                        tot = tot + weight
                else
                        Display ("this can't be loaded")
                End if
        End while
        Display ("total weight is", tot)
        Display ("fully loaded")
end.
```

1.   What would be the minimum value of tot to terminate the program?
2.   Draw flowchart corresponding to the above pseudo code.

b) find the output of following Pascal program.
    program test_array;
    var test:array[0..5] of integer;

```
        i:integer;
begin
        test[0]:= 10;
        test[5]:= test[0]+5;
        test[1]:= 2+test[0];
        test[2]:= test[1]+test[5];
        test[3]:= test[2]*2;
        test[4]:= test[3] div 10;
        for i:=0 to 5 do
                writeln(test[i]);
end.
```

7. Internet is the largest WAN of the world. It provides lots of valuable services to the world community. To keep up it in convenient way, it uses several logical methodologies.

    1. The Internet is controlled by protocols. A protocol can be seen on a system of law operated in computer networks. Following two cages show some of the protocols using in the internet and the brief of their task. match the protocol with the task they performed correctly

A. FTP		P. Controlling the exchange of large scale files
B. TCP/IP		Q. exchange of Electronic mail
C. SMTP		R. Controlling the exchange of IP addresses
D. HTTP		S. Exchange HTML documents

    2. Match the Item in table X with the item in table Y

X	Y
A. Web server	E. Software to access web sites.
B. Browser	F. Software to find web content easily.
C. Search engines	G. Map URL with the IP address
D. DNS Server	H. Storing web pages

    3. Write two services provided by Internet..
    4. Write two advantages of cloud computing
    5. Write the output of following HTML code

        ```
        <TABLE BORDER=1>
        <TR><TH>PLAYER_No</ TH >< TH >NAME</ TH >< TH >SCORE</ TH ></TR>
        <TR><TD>P1</TD><TD>Jayasekara</TD><TD>10</TD></TR>

        <TR><TD>P2</TD><TD>Steevan</TD><TD>20</TD></TR>
        <TR><TD>P3</TD><TD>Fernando</TD><TD>00</TD></TR>
        </TABLE>
        ```