වයඹ පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව
Provincial Department of Education - NWP

| 80 | E | I |

පළමු වාර පරීක්ෂණය - 11 ශ්‍රේණිය - 2018
First Term Test - Grade 11 - 2018

Index No .... **Information & Communication Technology - I** Time : One Hour

Note:
- answer all question
- In each of the question 1 to 40 pick one of the alternatives (1). (2). (3), (4) which is correct of most appropriate.
- Mark a cross (X) on the number corresponding to your choice in the answer sheet provided.

1. The world first digital electronic computer is,
   i. Pascaline Machine   ii. ABACUS
   iii. ENIAC   iv. Mark 1- Automatic Sequence Control Calculator

2. **Not** a feature of a quality information is,
   i. Timeliness   ii. Accuracy   iii. Completeness   iv. Size

3. The basis of classifying computers as Analog, Digital and Hybrid is,
   i. According to the size   ii. According to the technology
   iii. According to the purpose   iv. According to speed of the computer

4. Consider the following sentence
   A - Keyboard is an input device
   B - Joystick is a storage device
   C - Compact disk is a storage device
   Which the following statement is / are true ?
   i. A only   ii. B only   ii. A and C only   iv. All A, B and C only

5. Use of the floppy disk for secondary storage has been started
   i. In second generation computers   ii. In third generation computers
   iii. in first generation computers   iv. in fourth generation computers

6. Consider the following statements,
   A - Thermal Printer is a impact printer
   B - Ink ribbon used in the impact printers is expensive
   C - Laser printers best suited for obtaining quality images and documents
   Which of the following statements is ? are true?
   i. A only   ii. C only   ii. B and C only   iv. All A, B and C

7. A **disadvantage** of computer networking is,
   i. Sharing resources
   ii. Ability to connect anywhere at any time
   iii. Ability to spread computer viruses to other computers
   iv. Less storage space to store data.

8. Which of the following is a **false** statement regarding the universal serial bus port?
   i. The computer must be turned off before connecting the keyboard.
   ii. Several types of devices can be connected to this port.
   iii. The electricity needed for the USB devices is provided through the USB port itself.
   iv. Ability to use devices just after connecting.

9. Firewall is,
   i.   A device used to store information on a computer network.
   ii. A software or hardware that work as a security barrier between internet and a computer network.
   iii. A device that prevent the entry of computer viruses
   iv. A device used to connect computer in a network.

10. Which one **cannot** be the base of the number 12012 is,
    i. three   ii. eight   iii. four   iv. two

11. The sum of 1010_{two} and the 1011_{two} is,
    i. 22   ii. $16_{sixteen}$ iii. 25_{eight} iv. 10011_{two}

12. Which of the following is a BCD number?
    i. 1010 0001   ii. 1001 0000   iii. 1000 1010   iv. 1001 1011

13. If the inputs to the logic gate given in the diagram are 1 an 0, which answer gives the correct outputs respectively?
    i. 1 and 0   ii. 0 and 1
    iii. 0 and 0   iv. 1 and 1
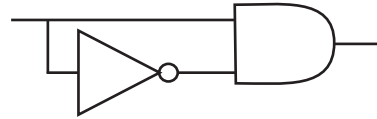
14. Which answer gives the correct outputs in the order when the inputs in the table are given respectively to the logic gate in the diagram below?
    i. 0 1 1 0
    ii. 0 1 1 1
    iii. 1 1 1 0
    iv. 0 0 0 1
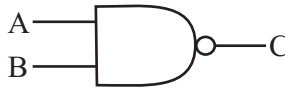
ආදාන	
A	B
0	0
0	1
1	0
1	1

15. When booting the computer startup programs are located in the,
    i. Random Access Memory   ii. Memory Registers
    iii. Cache Memory   iv. Read Only Memory

16. Which one is the programme file extension from the file extensions given below
    i. .docx   ii. .jpg   iii. wmf   iv. .exe

17. An example for a single user - multi tasking operating system is,
    i. MS DOS   ii. Windows 8   iii. Unix   iv. Ubuntu Server

18. Consider the following statements regarding the shortcut keys in word processing software.
    A -   Ctrl + C is used to copy a text or object.
    B -   Ctrl + X is used to cut a text or object
    C -   Ctrl + P is used to paste a text or object that has been copied.
    Which of the above statement /s/ is/ are true?
    i. A and B only   ii. B and C only   iii. A and C only   iv. A, B and C only

19. Consider the following statement regarding the selection of a word document are,
    A -   Enter Key is the shortcut key to select the entire document
    B -   Double click the mouse on that word to select a word
    C -   To select a sentence, click on the beginning of the first word of the sentences and drag till the end of last word.
    Which of the above statements is/ are true?
    i. B only   ii. A and B only   iii. A and C only   iv. B and C only

20. Which of the following tool should be used in a word processing software to change the orientation of a page?

    i.   ii.   iii.   iv.

21. The facilities provided by the slide background are,
    A -   Adding different colors to background of a slide.
    B -   Making different types of shapes.
    C -   Inserting pictures of graphics
    Which of the above statements is/ are true?
    i. A only   ii. A and B only   iii. C only   iv. A,B and C only

22. Which of the following is electronic presentations software which can be taken from the cloud computing service?
    i. Open Office.org Impress   ii. Microsoft One Drive word
    iii. MS Office - 365 Power Point   iv. MS Office - 365 Excel

Answer the Questions no 23 and 24 using tables of a database given below.

Students Table		
Index No.	Name	Grade
45507	Amal	10A
45508	Kasun	10A
45509	Mala	10C
45510	Vimala	10D

Books Table	
Book Name	Book No.
Madol D oowa	1007
Hathpana	1008
Heensaraya	1009
Sudu Neluma	1005

Students Book Table			
Index No.	Book No.	Date of Borrow	Date of Submitted
45507	1007	2017/05/11	2017/05/29
45508	1008	2017/05/13	2017/05/31
45509	1009	2017/05/31	2017/06/13
45510	1005	2017/06/03	2017/06/20

23. What is the answer that shows the suitable data types in the order for the fields of above Students Books Table.
    i. Number, number, Date/ Time, Date/Time   ii. Text, Number, Date/ Time, Date/Time
    iii. Number, Text, Text, Text   iv. Text, Text, Date/ Time, Date/Time

24. The Primary key field/s of the above Students Books Table is/are?
    i. Index_ Number   ii. books_Number
    iii. Index_Number and Book_Number   iv. Date_of Borrow

25. Which one is used to get the information from the relational tables?
    i. table   ii. Forms   iii. Queries   iv. Reports

26. The Correct statement regarding the primary key is,
    i. The primary key is a combination of two or more columns that is used to uniquely identify a record in a table.
    ii. Name of the person is an example for the primary key.
    iii. Records should not be repeated in a primary key field.
    iv. Primary key field can be empty.

27. Which **cannot be** considers as a characteristic of a database.
    i. Maximum data redundancy   ii. Data Consistency
    iii. Increasing the efficiency of data manipulation   iv. Increasing the accuracy

28. Which of the following cannot be taken as an example for a database management system software.
    i. Access   ii. Base   iii. Oracle   iv. Lotus 123

29. School children play together (group) as extra- curricular activities. There are a few sports in the school as netball, Volleyball, Cricket and one student must have done at least one game. There must be a group of students for a one game. According to the above data the relationship between students and sports tables are,
    i. One to one relationship   ii. One to many relationship
    iii. Many to Many relationship   iv. No relationship

30. A1 and B2 cells contain the numbers 12 and 34 respectively in a spread sheet.
    What is displayed if a cell is having **" =A1&B2"?**
    i. 46   ii. 1234   iii. 12 34   iv. Display an error

31. If you insert '**= COUNT (A1:B3)'** in a cell of the spread sheet given in the figure
    question 31, it displays,
    i. 5.   ii. 4.
    iii. 3.   iv. Display an error

	A	B
1	24	0
2	45	
3	abc	25
4		

32. **If '=AVERAGE (A1: A3, B1)'** Is included in a cell in spread sheet given in the figure
    question 31, it displays,
    i. 23   ii. 34.5
    iii.17.25   iv. 69

33. Select the **false** statement from the followings regarding the spread sheets.
    i. The formula should be started with "=" sign.
    ii. Cell addresses should be given by separating commas in the "Sum ( )" function But nearby cells could be
        given as a cell range.
    iii. Cell addresses given by separating commas is the same as the giving cell addresses as a cell range in a
        function.
    iv. "=" sign must be used at the beginning of a function.

34. The answer to 19 MOD 20 is:
    i. 19.   ii. 20   iii. 1   iv. 0

35. The output of the following program segment is,

    Write ('saman'): Write (75): Writeln ('Amal): Wtire (79)

    i. Saman 75
       Amal 79
    ii. Saman 75 Amal
       79
    iii. Saman 75 Amal 79
    iv. Saman
       75
       Amal
       79

36. Which is not a valid identifies in Pascal programming language?
    i. _Num   ii. Num1   iii. Num_1   iv. Num#

37. What is the output of the following segment of a pascal Programme?
    i. 012345   ii.0123456
    iii. 12345   iv. cannot compile because of an error

38. what will be the output in expression 20 DIV 6 in a
    Pascal program?
    I. 2
    ii. 3
    iii. 4
    iv. 3.3333333333E+000

```
Program abc; Var n:InTeGeR;
Begin
        n: =o;
        While n< = 5 do
        Begin Write (n);n:=n+1; end;
        Write (n);
End.
```

39. What is the output of the Pascal statement, Writeln (234.56); ?
    i. 2.34560000000000E+002
    ii. 234.56
    iii. 234
    iv. 2.3450000000000E-002

40. A valid statement to assign a value to the Boolean variable Bool is,
    i. Bool := faLsE;   ii. Bool:='True';
    iii.Bool=False   iv. True:=Bool;

80	E	II

පළමු වාර පරීක්ෂණය - 11 ශ්‍රේණිය - 2018
First Term Test - Grade 11 - 2018

Index No .... **Information & Communication Technology - II** Time : 2 Hours

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

1. Give short and **exact** answers.
   1. Vikum who has the computer spare parts selling business obtains a financial report at the end of the day by calculating the daily sales and purchases. Name an;
      a. Input Device
      b. Output device
      that the Vikum can use to perform this task.

   2. Write two major differences between the QR code and the bar code which use to get information about the consumer goods.

   3. Consider the following table about the e-Government applications. Match the items in the first column appropriately with the items in the second column, and state the pairs of labels in your answer sheet.

First Column	Second Column
A. Give Sri Lankan Custom information to other countries.	P. G2E
B. Provide Information about commercial organizations to the businesses.	Q. G2G
C. Issuing circulars to government employees.	R. G2C
D. Renewal of vehicle licenses.	S. G2B

   4. State a difference between the switch and the Hub used in the computer networking.

   5. If X=10010 two and Y=1111 two, find the hexadecimal equivalent of X+Y.

   6. Briefly explain why does the Unicode System is necessary for representing data in computers.

   7. The figure shows an integrated circuit which has 14 pins.
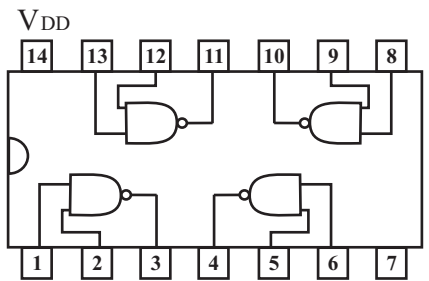
When the input values of 0, 1, 1, 1, 1, 0, 0, 0 to the pins. 1, 2, 5, 6, 8, 9, 12, 13 respectively are given, what are the output values for the pins 3, 4, 10, 11 respectively.

   8. Write three security management functions of an operating system.

   9. The Student intends to create a program to find the perimeter of a rectangle. Mention the solution space by analyzing the problem.

10. Find the output of the Pascal program given below.

```
Program exercise;
var
    a,b:integer;
begin
    a:=o;
    for b:=1 to 7 do
    begin
        a:=a+b
        writeln (a);
    end;
    readln;
end
```

2. A phrase of music is created by arranging a sequence of different musical notes. A beautiful picture is created by using different lines and colors.

   i. State the data and information separately by reading the paragraph given above.

   ii. Give a device that can be connected to each of the ports mentioned below.
   Ps/2 Port, HDMI Port, USB Port, Serial Port, Parallel Port

   iii. There are three data transmission modes according to the direction of transmission. Name those three modes and describe each of them.

   iv A diagram of a computer networking is given below.
   a) What is the networking topology of the given diagram?
      b) Mention two advantages and two disadvantage of a network topology mentioned above.
      c) A hub has been used to connect computers in the above network. Give another device that can be used instead of the hub.
      d) That network is in a small area. Name the type of network that spreads in a small area.
      e) Name two guided media that can be used to build that network.
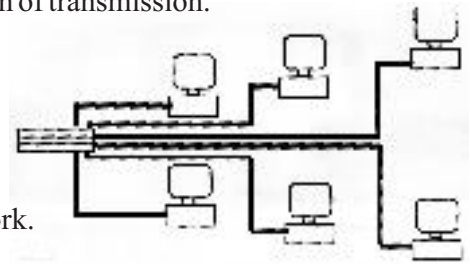
3. A) Answer the questions regarding the word processing documents given below.

Geographic Distribution — A

Distribution of majority ethnicity by DS division according 2012 census within Sri Lanka the majority of the Sinhalese reside in the South, Central, Sabaragamuwa and western part of the country. This coincides with the largest Sinhalese populations areas in Sri Lanka. Cities with a >90% population include.

- Hambanthota
- Galle
- Gampaha
- Kurunagala
- Monaragala
- Anuradhapura
- Polonnaruwa

Distribution of Sinhalese in Sri Lanka (2012)			
Province	Sinhalese People	% Province	% Sinhalese People
Central	1,687,199	66.00%	11.11%
Eastern	359,136	23.15%	2.36%
Northern	32,331	3.05%	0.21%
North Central	1,143,607	90.90%	7.53%
North Western	2,030,370	85.70%	13.38%
Sabaragamuwa	1,657,969	86.40%	10.92%

Source: http://en.wikipedia.org/wiki/sinhalese peopole

i. What are the tools used to format the text shown in the lable A?

ii. What is the tool used to format the list shown in the lable B?

02

iii. What is the tool used to join the cells shown in the lable C?

iv. Wtrie the steps in the order to insert the image shown in the lable D?

v. what is the tool used to format the text to connect to another website shown in the lable E?

vi. What is the shortcut key used to get the tool given in part (V) above?

B. Write two advantages of using electronic presentation software instead of conventional presentation.

4. A part of spreadsheet used to calculate the salaries of the employees in the Lakdinu furniture sales company is given below Rs. 100 commission is paid for each sales unit in addition to their basic salary.

	A	B	C	D	E
1	Laknidu Furniture Sellers				
2	Commission per unit			Rs. 100.00	
3	Name	Basic salary	No. of units sold	Commission	Total salary
4	Sachintha	Rs. 5,000.00	25	Rs. 2,500.00	Rs. 7,500.00
5	Isria	Rs. 4,700.00	36	Rs. 3,600.00	Rs. 8,300.00
6	Dimal	Rs. 5,300.00	42	Rs. 4,200.00	Rs. 9,500.00
7	Mohomad	Rs. 3,850.00	38	Rs. 3,800.00	Rs. 7,650.00
8	Indiraj	Rs. 6,200.00	32	Rs. 3,200.00	Rs. 9,400.00
9	Total Expenditure for paying Salaries				Rs. 42,350.00

i. What is the formula that should be in D2 cell to calculate the commission of Sachintha? It should be able to copy this formula from D5 to D8 to get correct values of them. (Commission = No of sales units * Commission per unit)

ii. Write the steps to complete the commission column?

iii. State the formula that should be in E2 cell to calculate the total salary of sachintha? (Total Salary = Basic salary + Commission)

iv. what is the suitable chart type to show the commission of each employee?

5. A) State the output generated from the Pascal Programme given below

```
Program Exercise5;
Var P,Q: Interger;
Begin
        P:=1;
        Q:=1;
        While P<40 Do
        Begin
                Writeln (P);
                Q:= Q+2;
                P:=P+Q;
        End;
        Readln;
    End.
```

B. The pseudo code given below is to output the smallest number from the three numbers A,B and C taken as inputs. Draw the flow chart for this pseudo code.

```
Begin
        Input (A, B, C)
        Min = A
        If B< Min then
          Min = B
        Endif
        If C< Min then
          Min = C
        Endif
        Print (Min)
End.
```

03

6. Several tables in relational database of a school database have given below. Answer the questions asked about it.

Book Table		
Book ID	**Name**	**Borrowed**
B5001	Sirimath	Yes
B5002	Hathpana	No
B5003	Metigedara	Yes
B5004	Heesnsaraya	Yes

Borrowing Table		
Book_ID	**Std_ID**	**Borrowed Date**
B5001	S3521	2017/05/03
B5003	S3523	2017/05/12
B5004	S3521	2017/05/16

Student Table		
Std_ID	**Name**	**Grade**
S3521	Seetha	10A
S3522	Amal	10B
S3523	Piyal	10A

   i. Give two primary key fields with the relevant table from the above tables.

   ii. The book " Ambayaluwo" has been added to the school library under the book number B5005 on 2017/06/06
     a. Which tables are updated, when that data is added?
     b. State those updated records with relevant tables (It's adequate to the seperate data included in the table from commas)

   iii. New membership has been taken by the "Ranil" under the number S3524 on 2017/07/03. He has borrowed the book" Hathpana" on the same day
     a. What are the tables updated when entering that data?
     b. State those updated records with relevant tables. (It's adequate to separate the data included in the table from commas)

7. A) A logic circuit of logic gates has given in the following diagram. Answer the questions about it.
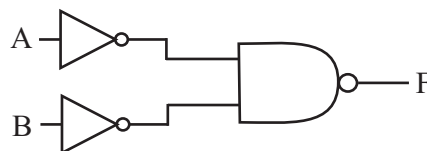
   i. Name the two types of logic gates in the circuit diagram.

   ii. Find the Boolean logic expression for the output "F" in terms of inputs.

   iii. Draw a truth table for the Boolean logic expression taken in the above (part ii)\

   iv. What is the basic logic gate represented from the above logic circuit?

B) A seven bit code 100 0001 is used in an operating system to represent the letter "A"

   i. What is the acronym (Short from of the name) used for that coding system?

   ii. What is the decimal number represented from this binary number 100 0001?

   iii. What is the binary code used to represented the letter "C" provided the letter "A" is represented by the binary code 100 0001 ?

First Term Test - 2018
Information & Communication Technology - Grade 11
Answer Sheet
Part I

1	iii	11	iii	21	iv	31	ii
2	iv	12	ii	22	ii	32	ii
3	ii	13	iii	23	I	33	iv
4	iii	14	iii	24	iii	34	i
5	i	15	iv	25	iii	35	I
6	ii	16	iv	26	iii	36	iv
7	iii	17	ii	27	i	37	ii
8	i	18	i	28	iv	38	ii
9	ii	19	iv	29	iii	39	i
10	iv	20	iii	30	ii	40	i

(1 x 40 = 40 marks)

paper II

1) 02 marks for each part of the first question and total of 20 marks.
   i.   a. keyboard   b. printer
   ii.   Web address has been coded with a QR code / A code number has been coded with a bar code.
   iii.   A - Q   B - S   C - P   D - R
   iv.   Connection is established only between the relevant two computers in the switch whereas the data is directed towards all the ports from a hub and only the relevant port is opened to accept the data.
   v.   21
   vi.   There is large number of char actors to be represented in lots of languages in the world. Therefore more codes are required.
   vii.   3 - 1, 4 - 0, 10 – 1, 11 – 1
   viii. Ability to keep User accounts of different access levels. Ability to use passwords.
          Ability to hide some files and folders.
          Not allowed to delete some files.
   ix.   input   :- length, width
          Process   :- solution space
                 Solution 1 - perimeter   =   (length + width + length + width)
                 Solution 2 - perimeter   =   (length + width) x 2
                 Solution 3 - perimeter   =   (length x 2) + (width x 2)
          output   :- perimeter of a rectangle
                 (02 marks for two correct solutions including solution 2)
   x.   1, 3, 6, 10, 15, 21

2) i.   Data   :- musical notes, different lines and colours   (01 mark)
          information   :- A music, A picture   (01 mark)
   ii.   PS/2   :- keyboard or mouse
          HDMI   :- multimedia projector, Television, digital speakers
          USB   :- any suitable device
          Serial Port   :- modem, CDMA phone, old mouse, computer gaming devices
          Parallel   :- printers, old scanners   (02 marks)
   iii.   simplex, half duplex, full duplex (for three answers)   (01 marks)
   iv.   A. star topology
          B. Advantages   :- Damage of one computer does not affect to others. Easy to maintain (connect and disconnect computers without any effect to the network.
              Disadvantages :- whole network is failed due to any fault of switch/hub, lots of wires are required to connect computers.   (02 mark)
          C. network switch   (01 mark)
          D. Local Area Network   (01 mark)
          E. Twisted pairs, coaxial cables   (01 mark)

01

3) A) i.   Bold, Italic, Underline, Center   (02 marks)
      ii. Bulleted List   (01 marks)
      iii. Cell Merge   (01 marks)
      iv. Insert   Picture   Select Picture   (02 marks)
      v.   Link   (01 mark)
      vi. Ctrl + K   (01 mark)

   B) Easy to use multimedia, easy to present, easy to edit   (02 marks)

4. i.   = C4*D$2   (02 marks)
   ii.   Select D4 cell ® use fill handle from the mouse pointer   drag it up to the relevant cell range.
                                                                               (04 marks)
   iii. = B4+D4   (02 marks)
   iv. column, bar, Pie, line like any graph type   (02 marks)

5) A) 1, 4, 9, 16, 25, 36   (04 marks)
   B) Nothing should be in the No root of two decision boxes.   (06 marks)

6) i.   Book_Table   :-   Book_ID
        Student_Table :-   Std_ID for both   (01 marks)
   ii. a. Book_Table   (01 marks)
        b. Book_Table (B5005, Ambayaluwo, No)   (02 marks)
   iii. a. Book_Table
            Student_Table
            Borrowing_Table   (03 marks)
        b. Book_Table (B5002, Hathpana, Yes)
            Student_Table(S3524, Ranil, 10A)
            Borrowing_Table(B5002, S3524, 2017/06/06)   (03 marks)

7) A) i.   NOT, NAND   (02 marks)
      ii. (A'B')'   (02 marks)
      iii. Output 0, 1, 1, 1 (should be in the order)   02 marks)
      iv. OR   (01 mark)
   B) i.   ASCII   (01mark)
      ii. 65   (01 mark)
      iii. 100 0011   (01 mark)

PROVINCIAL DEPARTMENT OF EDUCATION - NORTH WESTERN PROVINCE

Second Term Test 2018

Grade 11   **Information and Communication Technology - I**   Time : 1 hour

Name / Index No.

- **Answer all questions.**
- **Underline the correct or most suitable answer among given answers.**

01. Below chart shows the greetings received by Saman from the day when he passed the O/L examination before three years and upto now against time. Statements regarding the things which represent this chart are given from A to D.
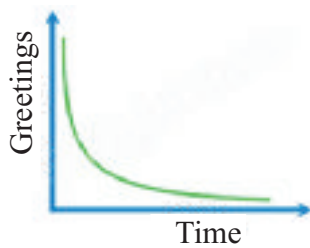
(A) The validity of an information is not changed by the passing of time.

(B) The validity of statement is not decreased by the passing of time.

(C) No decision can be made from this chart regarding the timeliness of an information.

(D) The validity of an information is maximized when it is created.

Which is the correct statement/statements from above?

(1) A and B only   (2) A only   (3) C and B only   (4) D only

02. Diagnosing of diseases in health sector is successful through the invention of various equipment by using Information and Communication Technology. What is the correct answer after matching few above equipment with its' testing organ.

Equipment	Testing organ
CAT	a. Record the activities of the brain
EEG	b. Monitor the heart beat
MRI	c. Made three dimensional images of different parts of body
ECG	d. Create images of internal organs of the body

(1) c d a b   (2) c a d b   (3) d c a b   (4) d c a b

03. Consider the following statements regarding various storage devices.

A. The memory of RAM capacity is larger than the memory of register capacity.

B. The access speed of register memory is larger than the access speed of RAM.

C. The cost of price per one bit of RAM is more expensive than the cost of price per one bit of register.

What is the correct statement/statements from above?

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

04. In computer internal operation, coding systems are used to represent various characters. Which is the answer that includes only coding systems used to represent 5 , A , e characters?

   (1) BCD, ASCII, EBCDIC   (2) ASCII, EBCDIC, Unicode

   (3) BCD, Unicode, EBCDIC   (4) BCD, Unicode, ASCII

05. Which is the correct order of Least Significant Digit(LSD) and Most Significant Digit(MSD) of 50.3580?

   (1) 0, 5   (2) 8, 5   (3) 5, 8   (4) 5, 0

06. Which answer is equant to $4A_{16}$?

   (1) 75_{10} (2) 72_8 (3) 74_{10} (4) 1000111_2

07. Which is the answer when arranged 1000110_2 , 60_8 , 50 , $3A_{16}$ numbers in descending order?

   (1) $60_8, 3A_{16}, 50, 1000110_2$ (2) $60_8, 50, 3A_{16}, 1000110_2$

   (3) $50, 3A_{16}, 1000110_2, 60_8$ (4) $1000110_2, 3A_{16}, 50, 60_8$

08. Which answer is equant to 2 GB?

   (1) $2x2_{10}$ MB   (2) $4x2_{12}$ KB   (3) 2_{30} Byte   (4) 2_{35} bits

09. What is the answer included only optical media data storage devices?

   (1) Digital Versatile Disk (DVD), Compact Disk (CD) , Blue-Ray

   (2) Digital Versatile Disk (DVD), Hard Disk, Blue-Ray

   (3) Hard Disk, Floppy Disk , Magnetic Tape

   (4) None of above

10. Ashen who is conducting a business, networked all computers in his office with the purpose of regulating in his office affairs according to below diagram. Which is the answer that include network type and network topology respectively?

   (1) Wide Area Network and Star Topology

   (2) Metropolitan Area Network and Bus Topology

   (3) Local Area Network and Ring Topology

   (4) Local Area Network and Bus Topology
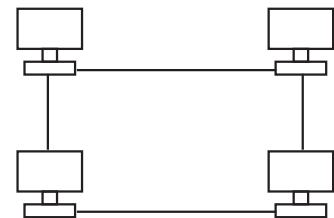
11. Following is an image in backside page of a book. What is the correct answer for the code represented by this image and its' duty?

   (1) Bar Code   a bar code number that can be taken details of a good

   (2) QR Code   a bar code number that can be taken details of a good

   (3) Bar Code   a web address of a good

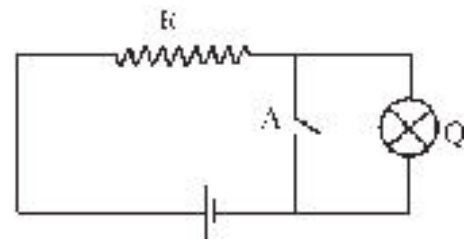   (4) QR Code   a web address of a good

12. Following is a diagram which denotes the content of an integrated circuit. Here, What is the correct answer of the output in 3 and 10 ports after inputting 1 and 0 into 1,2 and 8,9 ports respectively?

   (1) 0, 0   (2) 0, 1

   (3) 1, 0   (4) 1, 1
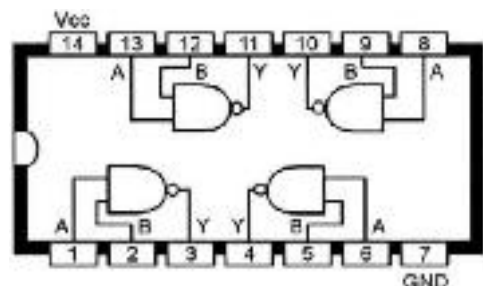
13. What is the logic gate represent in below circuit?

    (1) NOT

    (2) AND

    (3) OR

    (4) NAND

14. Money locker of a teller machine used in paying counter opens when electricity is available and identifying the finger print or face of the cashier. What is the correct order of logic gates regarding above process respectively?

    (1) OR gate and AND gate

    (2) NOT gate and AND gate

    (3) AND gate and OR gate

    (4) NAND gate and AND gate

15. Logic circuits with input x and y and its' truth table is shown below. The correct order of the truth table values for output F is,

X	Y	F
0	0	
0	1	
1	0	
1	1	

    (1) 0,1,0,1   (2) 1,1,1,1   (3) 1,1,0,0   (4) 1,1,1,0

16. Consider below statements regarding an operating system.

    A. Providing user an interface by managing hardware and software.

    B. The operating systems which give output as soon as input is given is called real time operating systems.

    C. UNIX and MS Dos are example for Graphical User Interface.

    What is the answer included only correct statement / statements ?

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

17. What is the answer which included only Word Processing software?

    (1) Microsoft Word, Open office Writer, VisiCalc

    (2) Open office Writer, libre office Writer, Google Sheet

    (3) iWork Pages, Open office Writer, Office 365 Word

    (4) Kingsoft writer, Open office Writer, libre Office Calc

18. In an certain electronic spreadsheet, =(A2/A8) + A6 has been inserted in A15 cell. What is the value, when 20,10,6 are inserted into A2,A8,A6 cells respectively?

    (1) 10   (2) 8   (3) 7   (4) 6

19. In an electronic spreadsheet, data is included as below. What is the answer which shows it correctly formatted?

    (1) Number   (2) Scientific

    (3) Text   (4) Percentage

G
0718372123
0783875974
0457803567
0374459864

20. What is the output value of below formula inserted in a cell in an electronic spreadsheet software?

$$=(3\char94 2 /(4 – 1\char94 2)* 6) \text{ MOD } 4$$

(1) 2   (2) 4   (3) 6   (4) 8

- **Answer the questions by using below shown spreadsheet.**

21. What is the answer when formula =MAX(A1:C3) is inserted into C3 cell?

	A	B	C
1	5	4	6
2	4 null		5
3	3		
4			

(1) 2   (2) 3

(3) 6   (4) 5

22. Consider the formulae with below spreadsheet functions.

         A. =Sum(B2$,$B3,B5)

         B. =Average(B2:B5,C5)

         C. =Sum(B2:B8,C5:C10)

What is the correct answer regarding the formulae with above functions?

(1) correct only A   (2) correct only B and C

(3) correct only A and C   (4) Correct all A,B and C

23. Consider the following statements regarding electronic data base.

     A - The field which enables to identify a record uniquely in a table is called primary key.

     B - Efficiency can be increased by increasing the data redundancy of a relational database.

     C - A collection of fields of data which is relevant to one object or person is called a record.

Which is the correct statement/statements from above statements?

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

- **Gifts are given by one of bank for their customers who deposit money during the new year festival days. Following tables are used to store gifts and customer details.**

Customer_Gift_Table

Acc_No	Deposit_Value	Gift_No	Received_Date
45670	Rs. 5000.00	100	15/04/2018
45672	Rs. 10 000.00	101	15/04/2018
45673	Rs. 50 000.00	103	16/04/2018
45671	Rs. 100 000.00	104	16/04/2018

Customer_Table

Acc_N0	Name
45670	C.K Nanayakkara
45671	B.K Malithi
45672	H.T Samantha
45673	M.M Silva

Gift_Table

Gift_No	Gift_Name
100	Pencil box
101	Umbrella
102	Bag
103	Electric iron
104	Mobile phone

- **According to above information, answer questions from 24 to 26.**

24. What is the answer of number of fields and number of records in Customer_Table and Gift_Table respectively?

    (1) 2,4 and 5,2   (2) 4,2 and 2,5   (3) 2,4 and 2,5   (4) 5,2 and 4,2

25. In above database, an example for foreign key field is,

    (1) Gift_No of Gift_Table   (2) Acc_No of Customer_Table

    (3) Received_Date of Customer_Gift_Table   (4) Acc_No of Customer_Gift_Table

26. What is the relationship between Customer_Table and Gift_Table in above data base?

    (1) One to one relationship   (2) One to many relationship

    (3) Many to many relationship   (4) No relationship

27. To display your photo in certain position in all slides of an electronic presentation, you should insert that photo in ………….

    (1) Handout Master   (2) Slide Master

    (3) Task pane   (4) Slide Pane

28. In programming, identifiers are used when naming a variable, constant. What is the incorrect identifier used in Pascal programming?

    (1) mark   (2) full-name   (3) sub1   (4) AvgMark

- **The flow chart prepared for students who obtain 50 marks or more in a test held for 50 students for the selection of studying Information and Communication Technology subject, is shown below.**

29. Which is the answer for correct order of label A,B,C of this flow chart?

    (1) st_no<=50, "You are selected",

       "You are not selected"

    (2) st_no>=50, "You are selected",

       "You are not selected"

    (3) st_no<=50, "You are Not selected",

       "You are selected"

    (4) st_no>=50, "You are Not selected",

       "You are selected"

30. What are the control structures represented by this flow chart?

    (1) Repitition in Selection

    (2) Selection in Repitition

    (3) Selection in Selection

    (4) Repitition in Repitition
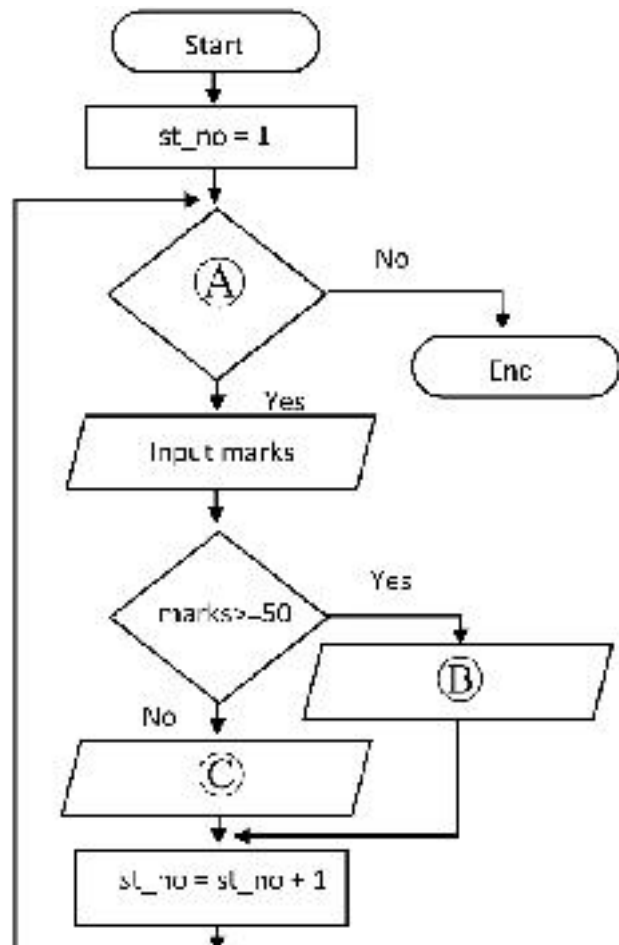
31. Which is the output of below pseudo code?

```
begin
   B = 1
   for A - 2 to 8 step 2
        B   B+A
        cisplay B
   Next A
End
```

(1) 3, 6, 12, 22   (2) 2, 4, 6, 8,   (3) 3, 7, 13, 22   (4) 3, 7, 13, 21

32. Which is the correct program among these Pascal programs?

(1)
```
Program addition (input,output);
   var n : integer;
begin
   for n    .0 downto 1 do
        write(n)
        n =n-1
readln.
end
```

(2)
```
Program addition (input,output);
   var n : integer;
begin
   for n .- 10 downto 1 do
        write(n)
        n :=1
read ";
end.
```

(3)
```
Program addition (input,output);
   var n :-integer;
begin
   for n : 10 cowuto 1 do
        write(r):
        n: n+1:
readln;
uric..
```

(4)
```
Program addition (input,output);
   var n : integer;
begin
   for n :- 10 downto 1 do
        write(n);
        n -n : 1;
readln;
end.
```

33. Consider the following statements.

   A - Program is converted into machine language by interpreter as long as it operates.

   B - Program can be run any times once it is converted into machine language.

   C - Assembler is used to convert a program written in assembly language into machine language.

   Which is the correct statement/statements from above statements?

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

34. Consider the following statements regarding the implementation of an information system.

   A - In pilot implementation, integrated system implementation is decided based on the success of selected sample.

   B - Direct implementation is most suitable implementation method for the security of data and information of the system.

   C - Phase implementation can be used for the ease of system implementation and the ease of user.

   Which is the correct statement/statements among above statements?

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

35. Select the **most suitable statement** regarding IP address among below statements.

   (1) IP address is used to identify each device in internet.

   (2) IP address is used to uniquely identify web sites in internet.

   (3) IP address is used to uniquely identify e-mail accounts.

   (4) IP address is used to uniquely identify a device or a web site in internet.

36. Useless emails received by us is stored in a separate place without disturbing. What is the name of that place?

   (1) Draft   (2) Outbox   (3) Trash   (4) Spam

37. What is used to convert Uniform Resource Locater (URL) into IP address?

   (1) DNS   (2) Mail Server   (3) Web Server   (4) Web browser

38. Pixel is the basic building block of a digital graphic. When amount of bits of a pixel is increased, its' color amount is also increased. What is the color amount, if its' amount of bits are four?

   (1) 8   (2) 16   (3) 32   (4) 64

39. A famous tool which is currently used to do practical activities by using robot technology.

   (1) Port Program   (2) Arduino   (3) Google Input   (4) 3D Animation

40. Social networks are famous web sites in all over the world. Which can be considered as a social web site among them?

   (1) Second life   (2) Firefox   (3) Fedora   (4) Google chrome

PROVINCIAL DEPARTMENT OF EDUCATION – NORTH WESTERN PROVINCE

Second Term Test 2018

Grade 11   **Information and Communication Technology - II**   Time : 2 hours

Name / Index No.

- **Answer only 5 questions including first question and any other four questions.**
- **First question carries 20 marks and each of the other questions carries 10 marks.**

(01) (i)   Nimsara went to a private bank ATM and then inserted his ATM card to machine and inputted his secret pin number. ATM machine displayed the balance amount of the account after validating the ATM card and the PIN number. Consider ATM as a system and write down the input, process and the output for the above scenario.

(ii) Online shopping is becoming more popular in modern day among people when buying products. Online shopping has its own advantages and disadvantages. Write down one advantage and disadvantage.

(iii) In the below table, descriptions of the column X (number 1-5) has a matching term in column Y (letter P – Q). Write down the matching number and the letter from column X and column Y.

	Column X		Column Y
01	Internet and electronic mail was invented to the world by	P	Java
02	Automatic Sequence Control Calculator	Q	Joseph Jacquard
03	High level programming languages	R	UNIX
04	Punch card concept was invented by	S	Tim Berners Lee
05	One of the command line Interface Operating system	T	Mark 1

(iv) For a Drill event in a school sport meet, FD_{16} number of boys and 10010011_2 number of girls were selected. Write down the total number of students who participated for the drill event as decimal number.

(v) Write down the Boolean equation (F) for the following logic circuit.
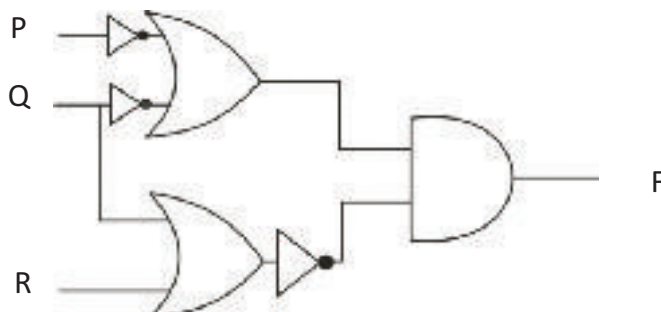
(vi) Following table illustrates some tools used in word processing software.

A	B	C	D	E	F	G
x,	A ▾	≣ ▾	ᴬ↓	🔍	📋	≔ ▾

Write down the letter of the tool which use to do the following tasks from the above table.(marks are not given when provided multiple letters for a given task)

1. Change the line space in a document.

2. Paste a selected area of document in another place

3. Find word or a part of a sentence in a document.

4. Apply subscript for selected word.

(vii) Following illustrates a unique URL, which use to identify files and information in WWW.

A   B   D

http: // www. e-thaksalawa.moe.gov.lk./web.si/grade-11.html

C
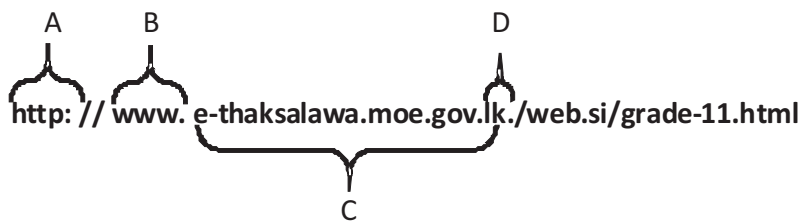
Write down the matching term for above listed letters (A- D) from the below listed terms.

(Top Level Domain, Service, Protocol, Domain Name, Resource File)

(viii) Write down the output of the below Pascal code.

```
program count_no ();
        var num : array[0..5] of integer;
begin
        num[0]:15;
        num[2]:5;
        num[3]:num[0]+num[2];
        num[1]:num[2]*5;
        writeln(num[1], num[3]);
end.
```

(ix) Hunukumbura Maha Vidayala plans to establish an automated information system instead of their manual information processing system to do their administrative tasks efficiently. Write down 2 methods which can be used in requirement gathering phase to develop the new automated system

(x) Following illustrates some tools used in graphic designing software. Write down the letter of the tool which use to do following tasks along with the appropriate task.

A	B	C	D

Select image background
Select a part from an image with any shape
Select a part from an image with a ellipse shape
Select the areas which have the same colour
Draw ellipse shape

(02) (A) Consider the following logic circuit which was designed to protecting bicycle rider.
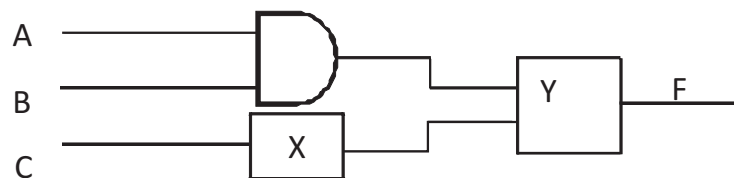
Bicycle engine will switch on only when the following activities are fulfilled; rider wear the safety helmet (A), insert the key and switch on the key (B) and releasing the bicycle stand (C)

Consider wearing the safety helmet and inserting the key and switching on the key as 1 and folding the bicycle stand as 0.

The engine can only start, only if the output equals to 1.

(i) Complete the logic circuit by inserting correct logic gates to X and Y

(ii) Write the Boolean expression F for the above logic circuit.

(B) Below truth table represent the Boolean expression F = (A+B) $\overline{AC}$ .Copy the below table in your answer sheet and complete column F.

A	B	C	F
0	0	0	
0	0	1	
0	1	0	
0	1	1	
1	0	0	
1	0	1	
1	1	0	
1	1	1	

(C) Convert 657_{eight} in to hexadecimal number with the steps.

(03) (A) Following figure represents a document prepared by Word processing Software. Select the tools which can be used to perform the formatting indicated in the below labeling A to H.

Mention the letter against the tool.

Bold, Italic, Underline, Bullets, Sort, left align, center align, Right align, Shapes, pictures, hyperlink, Center indentation, Right indentation, Table

(B) (i) Mention a advantage and a disadvantage in cloud computing. (2 marks)

(ii) Mention two word processing software which use cloud computing concept. (2marks)

(iii) Write down two point which you should focus, when preparing power point presentation. (2 marks)

(04) Below table represents the quantity of products purchased in January by Kumara Stores

Name	No of weeks				Total Item	Item Price	Gross Value	Discount	Net Value
	1st	2nd	3rd	4th					
School Bag	23	34	20	45	122	Rs.450.00	Rs.54,900.00	Rs.2,745.00	Rs.52,155.00
Bottle	40	43		23	106	Rs.120.00	Rs.12,720.00	Rs.636.00	Rs.12,084.00
Hang Bags	43	40	45	23	151	Rs.340.00	Rs.51,340.00	Rs.2,567.00	Rs.48,773.00
Shoes	15	78	67	34	194	Rs.1,200.00	Rs.232,800.00	Rs.11,640.00	Rs.221,160.00
Slippers	15	34	23	44	116	Rs.250.00	Rs.29,000.00	Rs.1,450.00	Rs.27,550.00
Watch	45	65	60		170	Rs.450.00	Rs.76,500.00	Rs.3,825.00	Rs.72,675.00
	Discount				5%		Total Net value		Rs.434,397.00

Use the above excel sheet to answer the below questions.

(i)   Write down the equation to indicate total cost for January month school bag purchases in cell H4   (2 marks)

(ii) Agent gives 5% discount for each item they sell to Kumar stores. It is indicated in cell F11. Write down the formula by only using cell addresses to get discounted price for the cell address I4.   (2 marks)

(iii) Total Net Value of the purchased item for the month is indicated in cell address J11.Write down equation with functions to calculate the Total Net Value.   (2 marks)

(iv) In order calculate the quantity of goods purchased for 3rd week, following equation is used.

      = function1 (value1:value2)

      Write down the appropriate values for function1, value1 and value 2   (2 marks)

(v)   Write two chart types which can be used to represent purchased items and quantities in the same chart for the given weeks.   (2 marks)

(05) Following database tables shows the data related to vehicle parking charges stored in an automated vehicle parking system

Vehicle_Table

Vehicle_No	Vehicle	Vehicle_Brand	Vehicle_Model
KW 5014	Car	Nissan	Sunny
AEJ 8596	Bus	Tata	Star Bus
AZO 5031	Jeep	Toyota	Hilux
CAP 4063	Car	Suzuki	Wagon R

Space_Table

Space ID	Area
S1001	10 X 4
S1002	14 X 6
S1003	10 X4
S1004	12 X 5

Vehicle_Parking

Vehicle_No	Space_ID	Date	Time_In	Time_Out	Fees
KW 5014	S1001	13/04/2018	8.30 AM	10.00AM	Rs.200.00
AZO 5031	S1004	14/04/2018	8.35AM	4.00PM	Rs.200.00
CAP 4063	S1001	14/04/2018	10.50AM	5.35PM	Rs.200.00
AEJ 8596	S1002	15/04/2018	3.00 PM	5.45 PM	Rs.300.00
KW 5014	S1003	15/04/2015	8.50PM	11.10PM	Rs.220.00

(i) Mention two primary keys with the table name for the above database. (2 marks)

(ii) Write down the data types for the below fields mentioned in above the "vehicle_parking" table. (2 marks)

    (a) Vehicle_No

    (b) Space_ID

    (c) Date

    (c) Fees

(iii) Explain "what is a composite key? Write an example by making use of above database. (2 marks)

(iv) On 2018/04/15 a vehicle "car" brand "Toyota" model "Prius" number "ACB8974" parked in the space "S1002" at 7.30 a.m. And the car left the park around 1.30 p.m.

    (a) Mention the table/s which needs to update to indicate the above scenario.

    (b) Mention the records in the above updated table/s. (3 marks)

(v) Mention relationship between vehicle table and space table in the above database (1 mark)

(06) (A) Old boy association of Gamunu Vidyalaya plans to develop a new Computer Based Information System instead of present manual information system in-order to perform the school administrative functionalities easily.

(i) To develop the above computer based information system they decided to use software development life cycle (SDLC). Mention first two steps in System Development Life Cycle (1 mark)

(ii) Mention two main points to consider when planning new Computer Based Information Systems. (2marks)

(iii) List down 2 testing methods which can be used to test new Computer Based Information Systems (2 marks)

(iv) Propose a software development model to build new Computer Based Information System and describe the reason for selecting that model (1mark)

(B) Mr. D. B. Jayasundara ((dbjaya76@fivestar .com), the purchasing manager in a five star company sent an email to his sells manager Mr. Johon (johon@topmachinery.com) and copied that email to Mr. A. J. Silva (ajsilva@fivestar.com), superior in Top machinery company.

The subject of the email is mentioned as "Manufacturing productions" and he sent hidden copy of the same email Mr. Sumith (sumith@fivestar.com) who is a mechanic in his company.

To fulfill the above requirement, write down e mail addresses in the blanks with the given number. (4 mark)
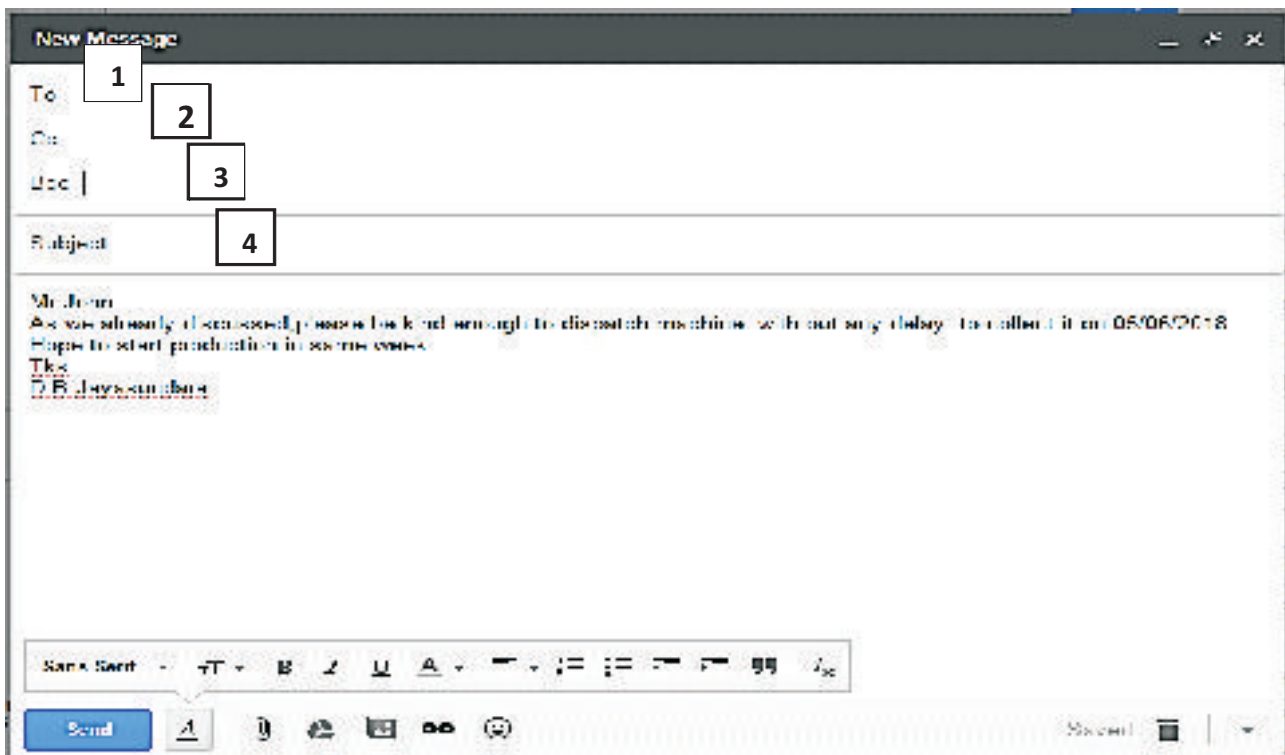
(07) (A) The below flowchart shows a scenario of 50 candidates who were selected to follow a course in university. The candidates who get above 50 marks from the written exam and 75 above marks from practical exam will get select to follow the course.
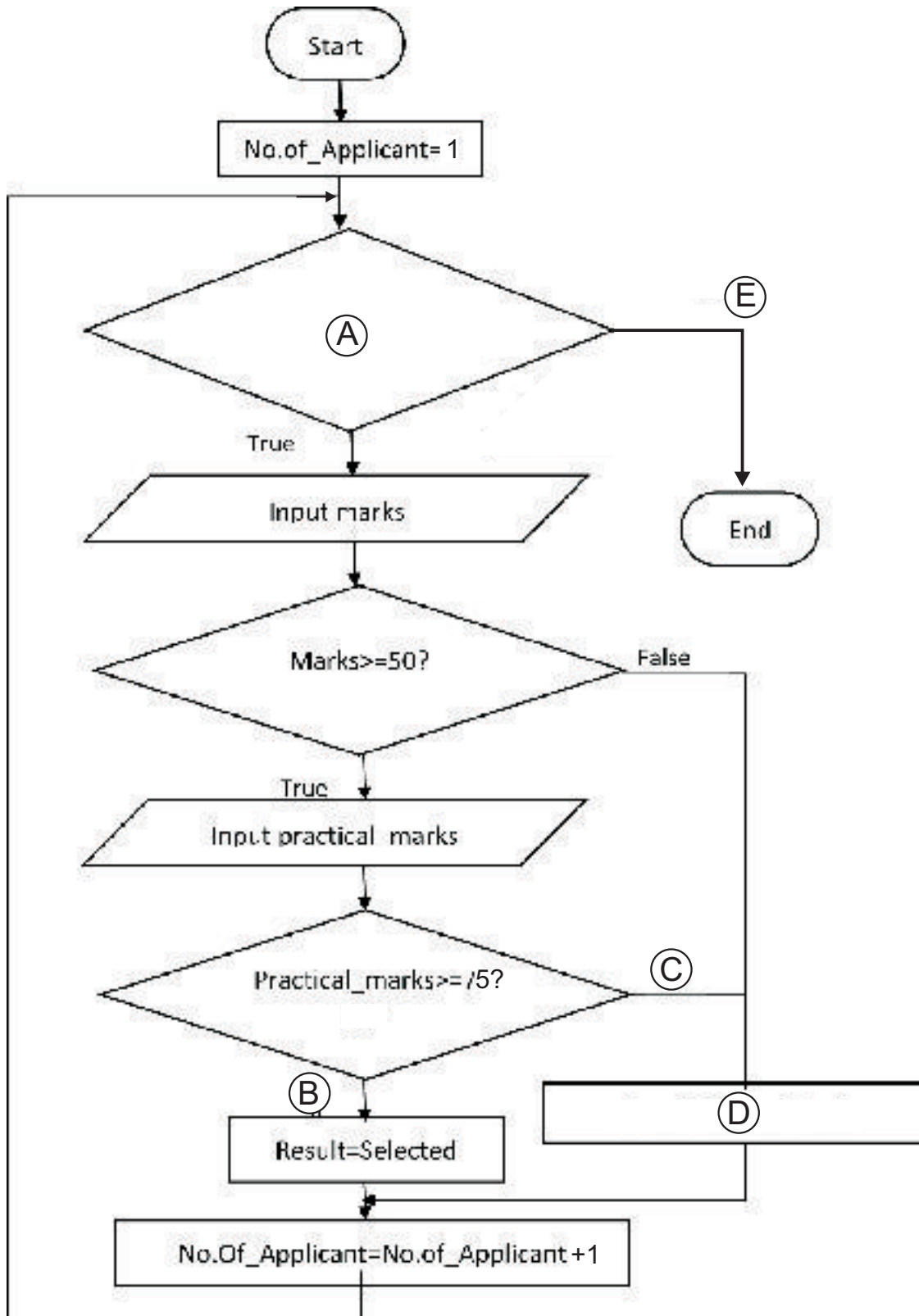
```
                        ┌──────────────┐
                        │    Start     │
                        └──────┬───────┘
                               ↓
                    ┌──────────────────────┐
                    │  No.of_Applicant= 1  │
                    └──────────┬───────────┘
                               │
                               ↓
                      ◇─────────────────◇
                     /                    \         (E)
                    ◇         (A)          ◇──────────────┐
                     \                    /               │
                      ◇─────────────────◇                ↓
                            │ True              ┌──────────────┐
                            ↓                   │     End      │
                    ╱─────────────────╱         └──────────────┘
                   ╱   Input marks    ╱
                  ╱─────────────────╱
                            │
                            ↓
                      ◇─────────────────◇
                     /                    \        False
                    ◇    Marks>=50?        ◇──────────────┐
                     \                    /               │
                      ◇─────────────────◇                │
                            │ True                        │
                            ↓                             │
                    ╱─────────────────────╱              │
                   ╱ Input practical marks ╱             │
                  ╱─────────────────────╱                │
                            │                             │
                            ↓                             │
                      ◇─────────────────◇                │
                     /                    \      (C)      │
                    ◇ Practical_marks>=75? ◇──────────────┤
                     \                    /               │
                      ◇─────────────────◇                │
              (B)           │                             │
                            ↓               ┌─────────────┴──────┐
                   ┌─────────────────┐      │       (D)          │
                   │ Result=Selected │      └─────────┬──────────┘
                   └────────┬────────┘                │
                            ↓←───────────────────────┘
              ┌───────────────────────────────────────────┐
              │ No.Of_Applicant=No.of_Applicant +1         │
              └───────────────────────────────────────────┘
```

In the above flow chart fill the missing blanks for A to G with appropriate labels.

(While NO.of_Applicant<=50, Result = "Not selected", True, False, False)

(B)   Write the output for the below Pascal Code

```
Program Repetition (Input , Output);

        Var Num, Total: Integer;

          Begin

                Num:= 1;

                Total:=0;

                Repeat

                        Total:= Num*Num;

                        Writeln(Total);

                        Num:=Num+1;

                Until Num<=10;
```

(C)   Consider computer program consists many processes then it becomes complex and difficult to understand.Because of that program consists with sub programs to become more readable and easy to understand.Wite down two sub programs used in Pascal programming.

Answer Sheet - Paper I

|									
01. (4)	02. (2)	03. (3)	04. (2)	05. (2)	06. (3)	07. (4)	08. (1)	09. (1)	10. (3)
11. (4)	12. (4)	13. (1)	14. (3)	15. (2)	16. (2)	17. (3)	18. (2)	19. (3)	20. (1)
21. (3)	22. (2)	23. (3)	24. (3)	25. (4)	26. (1)	27. (2)	28. (2)	29. (1)	30. (2)
31. (4)	32. (4)	33. (4)	34. (3)	35. (4)	36. (4)	37. (1)	38. (2)	39. (2)	40. (1)

Paper - II

(01) (i)   Input   pin number/ATM card

Process Testing the validity of card

Output   Account balance/ money

(2 marks for correct each 3 answers,1 marks for correct 2 answers,0.5 marks for correct 1 answers) (02 marks)

(ii)   Advantages   - able to use online shopping via internet at any time any place, open 24 hours a day, able to select goods among many suppliers

Advantages – unable to prove the quality of goods by testing physically, Takes much time from ordering the good to receiving the good and unable to believe whether the good is been received.

(1 mark for each suitable answer   1x2=2) (02 marks)

(iii)   1 = S

2 = T

3 = P

4 = Q

5 = R (2 marks for correct each 5 answers,1.5 marks for correct 4 answers,1 marks for correct 3 answers.0.5 marks for correct 2 answers) (02 marks)

(iv) $FD_{16} = 16*15+1*13$ =   253

$10010011 = 128+16+2+1$ = $\underline{147}$

$\underline{\underline{400}}$ (02 marks)

(v) $(\bar{P}+\bar{Q}).(\overline{Q+R})$ (02 marks)

(vi)   1 = C

2 = F

3 = E

4 = A (0.5 X 4 = 02 marks)

(vi)   A = Protocol

B = Service

C = Domain name

D = Top Domain name   (02 marks)

(viii) 2520   (02 marks)

(ix)   Observation / Interview / Questionnaire / Document sample Collection / Prototyping)

(1x2 = (02 marks)

(x)   A = Selects as eliptical region

B = Draws free from selection

C = Selects areas on color similarity

D = Selects a region containing foreground objects (0.5x4=2 marks)

Total marks 2x10 (20 marks)
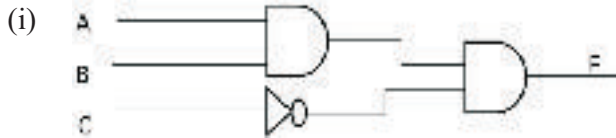
(02) (a)   (i)   (1x2=2)

(2 marks for one gate) (1x2=2 marks)

(ii) $(A.B).\overline{C}$ (02 marks)

(b)   (0.5x8 =4 marks)

A	B	C	F
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	0

(c) 657_8

6 = 110

5 = 101

7 = 111 (1 mark for convert to binary)

1	1010	1111
1	10	15
1	A	F

$1AF_{16}$

(1 mark for convert the correct binary number into hexadecimal number) (1x2=2 marks)

(03) (a)   A = Underline   (0.5*8=4)

B = Bold

C = Italic

D = Table

E = Shape

F = Center Align

G = Hyperlink

H = Picture

(b) (i) Advantages - The minimum cost for software installation and maintenance

        Increase the process effectiveness

        The user does not have the computer memory to save the document and install software

      Disadvantages – needs uninterrupted internet facility

      Decrease the process when low speed connection

      (1 mark for each correct answers   1x2=2) (1x2=2 marks)

    (ii) Google Docs / Office 365 Word / Microsoft OneDrive Word   (1x2=2)

    (iii) number of columns, animation or video

        font size / targeting the objectives

        correcting spelling and correctness of language

        using color

        (1 mark for each correct answer 1x2 =2) (1x2=2 marks)

                                         (Total marks 10)

(04) (i)   = F4* G4   (02)

    (ii) = H4 *F$11 හෝ   H4 *$F$11   (02)

    (iii) = Sum(J4:J9)   (02)

    (iv) Function 1 = Count   (02)

        Value1 = D4

        Value2 = D9

    (v) Bar chart

        Line chart

        column chart   (02 marks)

                                           (Total marks 10)

(05) (i) Vehicle Table – Vehicle_No

      Space Table   – Space_ID (02 marks)

    (ii) a. Vehicle_No - Text

        b. Space_ID - Text

        c. Date   - Date/ Time

        d. Fees   - Currency (0.5x4=2 marks)

    (iii) Composite primary key – The pimary key which consists of two or more columns of a table uniquely identifies a record is called composite primary key.

      Vehicle Parking Table –Vehicle_No and Space_ID (1 marks)

      (1 mark for defining the composite key , 1 mark for correct example) (1 marks)

(iv) (i) Vehicle_Table and Vehicle_parking_Table (1 marks)

(ii) Vehicle_Table (1 marks)

(Vehicle_No)	(Vehicle)	(Vehicle Brand)	(Vehicle_Model)
ACB 8974	CAR	Toyota	Prius

Vehicle Parking Table

Vehicle_No	Space_ID	Date	Time In	Time Out	Fees
ACB 8974	S1002	15/04/2018	1.30 AM	1.30PM	Rs.200.00

(1*3)=3

(v) Many to many (01)

(Total marks 10)

(06) (a) (i) Identification the problem   Designing the solution (0.5x2=1 marks)

(ii) Identification of software, software architecture, user interface and preparation for data storage, Identification of main hardware systems and its components, Identification of dependency of each sub-system, Deciding on the required hardware and software to run the system, Planning of tests (1x2=2 marks)

(iii) Unit testing   Intergrated testing
System testing   Acceptance testing
(1 mark for correct 2 answers) (0.5x2=1 marks)

(iv) Waterfall model , Iterative Incremental model
(1 mark for naming)   (1 mark for correct explaining) (1x2=2 marks)

(b) 1 = John@topmachinary.com   2 = ajsilva@fivestar .com   (1x4=4)
3 = sumith@fivestar.com   4 = manufacturing productions

(Total marks 10)

(07) (a) A = While NO.of_Applicant<=50   B = True   (1x5=5)
C = False   D = Result = "Not selected"
E = False

(b) 1   (3 marks)
4
9
16
25
36
49
64
81
100
(3 marks for correct 6 answers,1 marks for the correct order of these answers) (1 marks)

(c) functions
sub procedures (1 marks)

(Total marks 10)