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.**

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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.
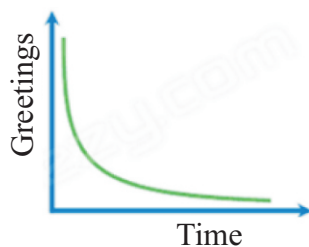
(A) The validity of an information is not changed by the passing of time.

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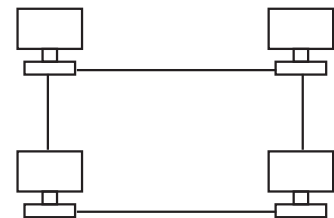
Equipment	Testing organ
CAT	a. Record the activities of the brain
EEG	b. Monitor the heart beat
MRI	c. Made three dimensional images of different parts of body
ECG	d. Create images of internal organs of the body

(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

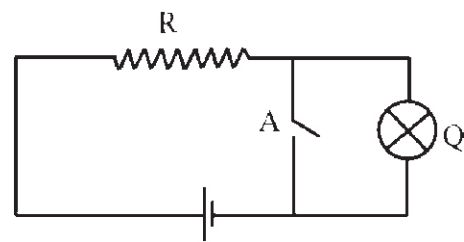   (4) QR Code   a web address of a good

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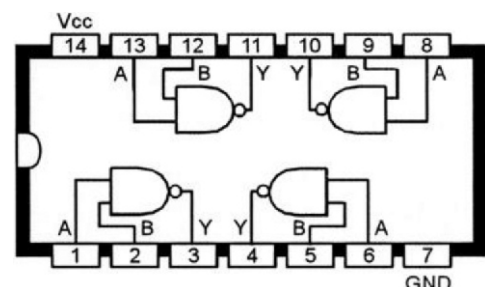
    (1) 0, 0   (2) 0, 1

    (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,
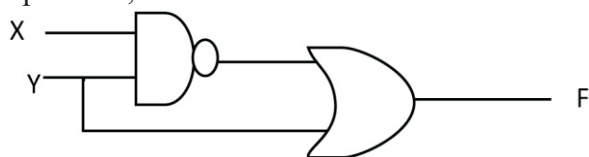
X	Y	F
0	0	
0	1	
1	0	
1	1	

    (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?

$$=(3^2 /(4 – 1^2)* 6)\ MOD\ 4$$

    (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
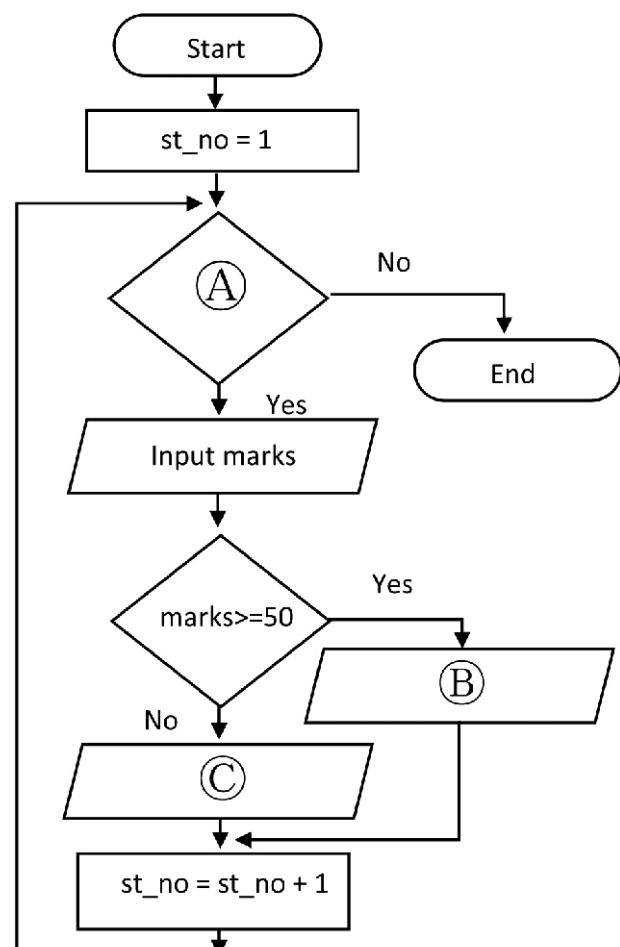
31. Which is the output of below pseudo code?

```
begin
    B = 1
    for A = 2  to  8  step 2
        B = B+A
        display 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 = 10 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:=n+1
readln;
end.
```

(3)
```
Program addition (input,output);
    var n := integer;
begin
    for n : 10 downto 1 do
        write(n);
        n: n+1;
readln;
end.
```

(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**

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- **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.
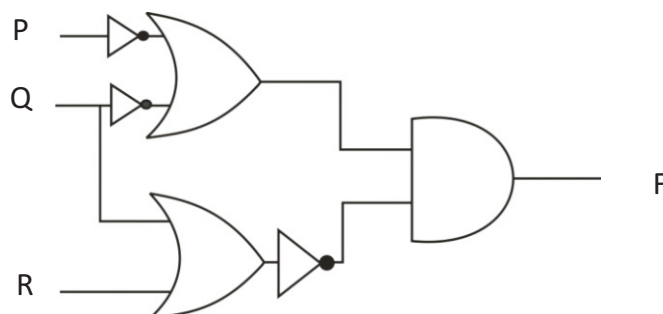
(vi) Following table illustrates some tools used in word processing software.

A	B	C	D	E	F	G
x₂	A ▾	↕≡ ▾	ᴬ↓Z	🔍	📋	≔ ▾

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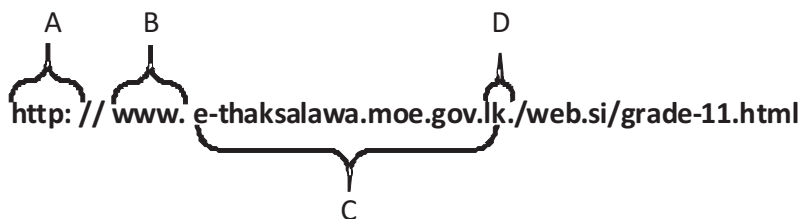
Write down the matching term for above listed letters (A- D) from the below listed terms.

(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.
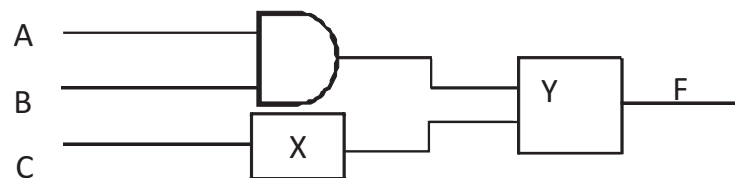
Bicycle engine will switch on only when the following activities are fulfilled; rider wear the safety helmet (A), insert the key and switch on the key (B) and releasing the bicycle stand (C)

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					
1	Kumara Stores									
4	School Bag	23	34	20	45	122	Rs.450.00	Rs.54,900.00	Rs.2,745.00	Rs.52,155.00
5	Bottle	40	43		23	106	Rs.120.00	Rs.12,720.00	Rs.636.00	Rs.12,084.00
6	Hang Bags	43	40	45	23	151	Rs.340.00	Rs.51,340.00	Rs.2,567.00	Rs.48,773.00
7	Shoes	15	78	67	34	194	Rs.1,200.00	Rs.232,800.00	Rs.11,640.00	Rs.221,160.00
8	Slippers	15	34	23	44	116	Rs.250.00	Rs.29,000.00	Rs.1,450.00	Rs.27,550.00
9	Watch	45	65	60		170	Rs.450.00	Rs.76,500.00	Rs.3,825.00	Rs.72,675.00
10										
11		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	15/04/2018	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)

New Message

To   **1**
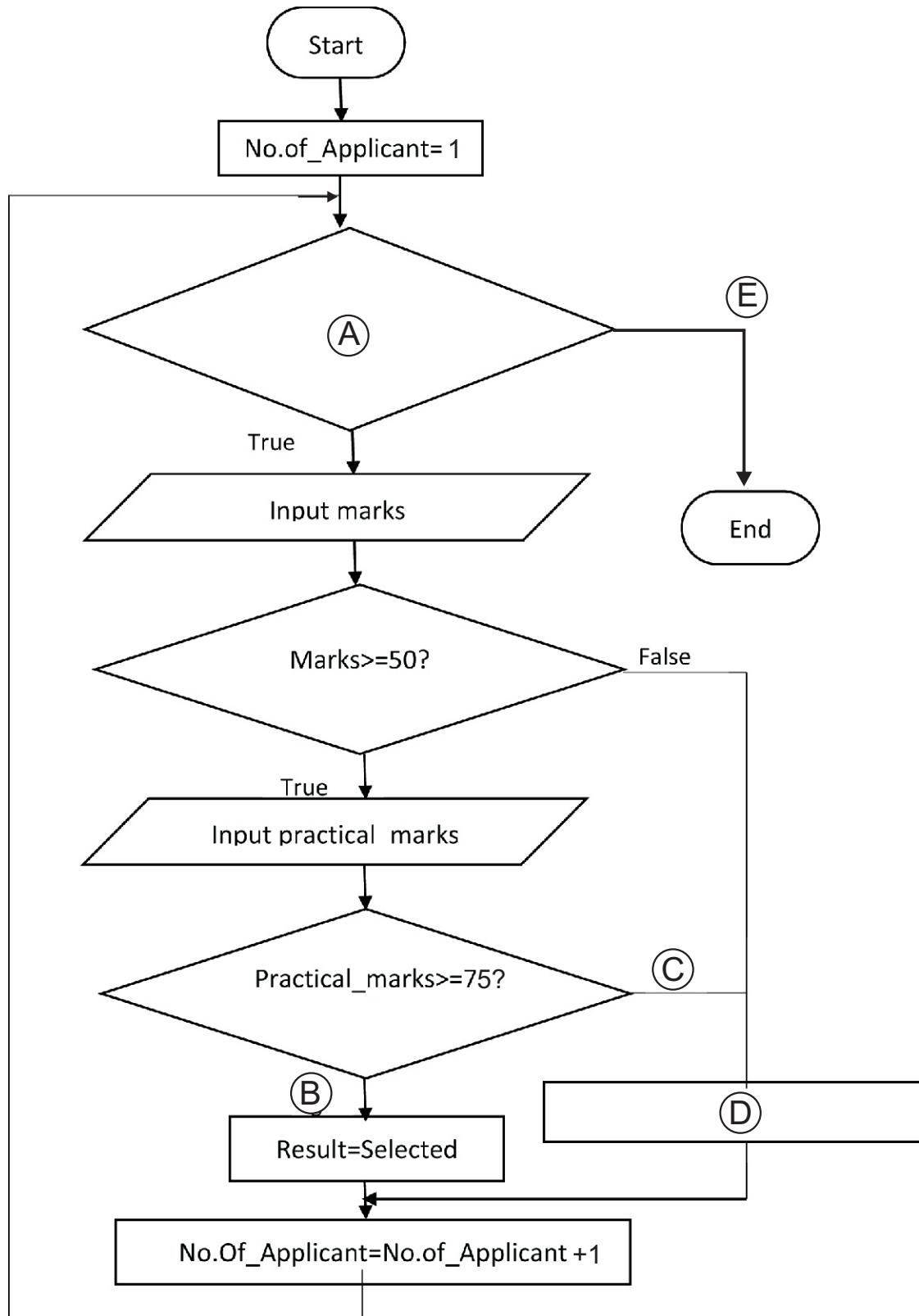
Cc   **2**

Bcc | **3**

Subject   **4**

Mr John
As we already discussed,please be kind enough to dispatch machine with out any delay to collect it on 05/06/2018. Hope to start production in same week.
Tks
D.B.Jayasundara.

Sans Serif   B   I   U   A

Send   A   Saved

(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   │
                   └──────────────────────┘
                             │
                             ▼
              ╱────────────────────────────╲              Ⓔ
             ╱                               ╲
            ╱              Ⓐ                  ╲──────────┐
             ╲                               ╱          │
              ╲────────────────────────────╱            ▼
                   │ True                            ┌─────────┐
                   ▼                                 │   End   │
            ╱─────────────────────╲                  └─────────┘
           │    Input marks        │
            ╲─────────────────────╱
                   │
                   ▼
              ╱──────────────────╲           False
             ╱    Marks>=50?       ╲──────────────────┐
             ╲                     ╱                   │
              ╲──────────────────╱                     │
                   │ True                              │
                   ▼                                   │
            ╱─────────────────────────╲                │
           │   Input practical  marks  │               │
            ╲─────────────────────────╱                │
                   │                                   │
                   ▼                                   │
              ╱──────────────────────────╲   Ⓒ         │
             ╱   Practical_marks>=75?      ╲────────────│
             ╲                             ╱            │
              ╲──────────────────────────╱             │
              Ⓑ    │                    ┌──────────────────────────┐
                   ▼                    │            Ⓓ              │
           ┌──────────────────┐         └──────────────────────────┘
           │ 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

       $10010011 = 128+16+2+1$ =   147

                               400   (02 marks)

(v) $(\overline{P}+\overline{Q}).(\overline{Q+R})$ (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)
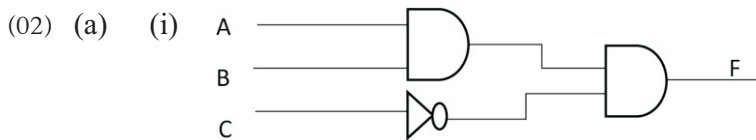
(x) A = Selects as eliptical region

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) A ———   (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)

$$
\begin{array}{c|c|c}
1 & 1010 & 1111 \\
1 & 10 & 15 \\
1 & A & F
\end{array}
$$

$1AF_{16}$

(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)