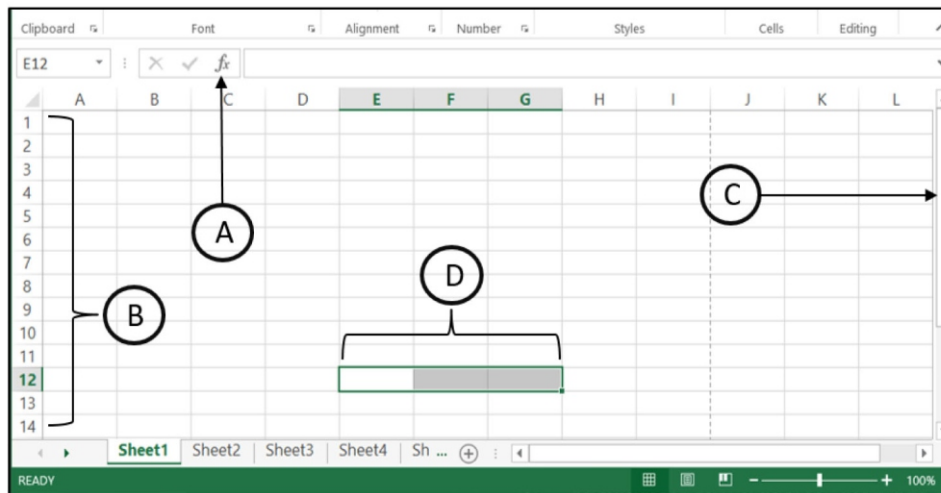




8. If character “P” is represented in the ASCII table as  $80_{10}$ , what is the binary representation of character “M” in the ASCII table?
- (1) 1001110                      (2) 1001101                      (3) 1001111                      (4) 1010000
9. Which answer represents the four main components found in an operating system with graphical user interfaces?
- (1) Icons, Windows, Shortcuts, Pointer                      (3) Icons, Windows, Menus, Shortcuts  
 (2) Shortcuts, Menus, Pointer, Icons                      (4) Windows, Menus, Pointer, Icons
10. Which of the following statements are true?
- A - High level programming languages are machine independent.  
 B - Machine language uses bit based instructions which can be understood by a computer.  
 C - Assembly and Basic are examples of low level languages.
- (1) A and B only.                      (2) A and C only.                      (3) B and C only.                      (4) A, B and C all.
11. What is useful to find other words that convey the same idea instead of the words we use in preparing documents?
- (1) Thesaurus                      (2) Zoom                      (3) Formatting                      (4) Replace
12. Consider the following spreadsheet segment with four components labelled as A, B, C and D:



- Which of the following shows the labels A, B, C and D in the correct order?
- (1) Insert function, Vertical scroll bar, Row headings, Cell range  
 (2) Cell range, Insert function, Row headings, Vertical scroll bar  
 (3) Insert function, Row headings, Vertical scroll bar, Cell range  
 (4) Horizontal scroll bar, Row headings, Insert function, Cell range
13. Which view displays all the slides of the presentation together as mini slides and can change the order of the slides?
- (1) Normal View                      (2) Slide show view                      (3) Reading View                      (4) Slide sorter view

14. Consider the segment of a filling station's revenue list below, entered into an electronic spreadsheet.

	A	B	C	D	E	F
1		<b>Price per</b>	<b>No of Liters Sold</b>			
2	<b>Product</b>	<b>Liter</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Total Income</b>
3	Petrol 92	Rs. 450.00	320	570	480	
4	Petrol 95	Rs. 540.00	290	430	325	
5	Auto Diesel	Rs. 440.00	620	570	590	
6	Super Diesel	Rs. 510.00	610	580	470	
7						

What is the correct formula to enter in cell F3 to calculate the total revenue earned for Petrol 92?

- (1)  $(C3+D3+E3)*B3$       (2)  $=C3+D3+E3*B3$       (3)  $=(C3+D3+E3)*B3$       (4)  $(C3:D3:E3)*B3$

15. The value of a box is determined by the number of apples in a box in a given spreadsheet section.

	A	B
1		
2	Price of an apple =	Rs. 100.00
3		
4	<b>No of apples in a box</b>	<b>Price of the box</b>
5	50	Rs. 5,000.00
6	100	
7	150	

To find the value of a box of 50 apples, the formula  $=A5*B\$2$  is entered in cell B5.

If the formula is copied to cells B6 and B7 in that column, what are the values shown in B6 and B7 respectively?

- (1) Rs. 15,000.00 and Rs. 10,000.00      (3) Rs. 5,000.00 and Rs. 5,000.00  
 (2) Rs. 15,000.00 and Rs. 15,000.00      (4) Rs. 10,000.00 and Rs. 15,000.00

16. Consider the following statements related to electronic database and manual database.

- A – Having data redundancy of manual database helps to maintain data consistency
- B – Increasing data redundancy of relational databases improves efficiency.
- C – Collection of fields including data related to an object or a person is called a record

Which of the above statement is/are true?

- (1) A only.      (2) C only      (3) A and C only      (4) B and C only

17. Select the correct answer for correct E-Mail Address and URL of not for profit organization (NGO)

- (1) sanurasl.gmail@com and www.educationsl.org      (3) sanurasl@gmail.com and www.educationsl.gov.lk  
 (2) sanurasl@gmail.com and www.educationsl.org      (4) sanurasl@gmail.com and www.educationsl.ngo

18. which is **not** a compulsory part of a Uniform Resource Locator (URL)

- (1) Domain name      (3) Protocol  
 (2) Path where the resource is located      (4) Service

- Consider the following abstract from the database of “SIPMAGA” private education institute containing the information of its students and courses they study. Answer the questions from 19, 20 and 21 given below.

**Student Table**

Stu_No	Name	Contact	City
S001	Meneth	0776978449	Kandy
S002	Pasindu	0338978455	Meerigama
S003	Kanchana	0118789565	Colombo

**Course Table**

Cou_ID	Course	Fee
C001	Programming	Rs. 2000.00
C002	Graphic	Rs. 3000.00
C003	Networking	Rs. 2500.00
C004	Hardware	Rs. 1000.00

**Student\_Course Table**

Stu_No	Cou_ID	Day	Lec_Hall
S001	C001	Monday	H01
S001	C002	Tuesday	H03
S002	C003	Thursday	H06
S002	C004	Friday	H01
S003	C002	Friday	H03

19. What would be the primary key of the Student\_Course Table?  
 (1) Cou\_ID (2) Stu\_No (3) Stu\_No + Cou\_ID (4) Stu\_No + Lec\_Hall
20. Consider the following statements regarding above tables.  
 A – Cou\_ID is a foreign key of Course table  
 B – Stu\_No and Cou\_ID is a composite key of Student\_Course Table  
 C – Cou\_ID is a foreign key of Student\_Course Table  
 Which of the above are correct  
 (1) A and B only. (2) A and C only (3) B and C only. (4) All A, B and C
21. Which tables should be connected to run a query to find the course that “Meneth” follows?  
 (1) Student table, Course Table  
 (2) Student table, Course table and Student\_Course table  
 (3) Course table and Student\_Course table  
 (4) Student table and Student\_Course table
22. Select the correct element, Attribute and value respectively from the given HTML tag  
`< font face = "Courier New" size = "5" color = "#00FF00" > Hello </font >`  
 (1) font face, size , 5 (3) font , face , Courier New  
 (2) font face , color , size = “5” (4) size , font , 5
23. Which of the following statements are true?  
 A – HTML (Hypertext Markup Language) is not a computer language  
 B – HTML documents are created by using a web browser  
 C – An HTML document which can be displayed through a web browser is called a web page.  
 (1) A and B only. (2) A and C only. (3) B and C only. (4) All A, B and C
24. Consider the following requirements.  
 A – Web authoring tool  
 B – Web server  
 C – Domain name  
 D – Uploading software  
 Which of the above requirements are compulsory for publishing a website?  
 (1) A, B and C only. (2) A, C and D only. (3) B, C and D only. (4) All A, B C and D

25. Consider the following HTML code segment.

```
<u>Different type of Software</u>
  <dl>
    <dt>Operating System </dt>
      <dd> Windows Xp<dd/>
      <dd> Linux<dd/>
    <dt> Internet Browser</dt>
      <dd> Firefox<dd/>
      <dd> Google Chrome<dd/>
  </dl>
```

What is the output of the above HTML code segment?

- |   |  |
|---|--|
| <p>(1)</p> <p><u>Different type of Software</u></p> <ul style="list-style-type: none"> <li>• Operating System           <ul style="list-style-type: none"> <li>○ Windows Xp</li> <li>○ Linux</li> </ul> </li> <li>• Internet Browser           <ul style="list-style-type: none"> <li>○ Firefox</li> <li>○ Google Chrome</li> </ul> </li> </ul> | <p>(2)</p> <p><u>Different type of Software</u></p> <p>Operating System</p> <p style="padding-left: 20px;">Windows Xp</p> <p style="padding-left: 20px;">Linux</p> <p>Internet Browser</p> <p style="padding-left: 20px;">Firefox</p> <p style="padding-left: 20px;">Google Chrome</p>               |
| <p>(3)</p> <p><u>Different type of Software</u></p> <p>Operating System</p> <ul style="list-style-type: none"> <li>• Windows Xp</li> <li>• Linux</li> </ul> <p>Internet Browser</p> <ul style="list-style-type: none"> <li>• Firefox</li> <li>• Google Chrome</li> </ul>  | <p>(4)</p> <p><u>Different type of Software</u></p> <p><i>Operating System</i></p> <p style="padding-left: 20px;">Windows Xp</p> <p style="padding-left: 20px;">Linux</p> <p><i>Internet Browser</i></p> <p style="padding-left: 20px;">Firefox</p> <p style="padding-left: 20px;">Google Chrome</p> |

26. Consider the statements indicated by 1 to 4 and consider the terms indicated by P to S:

1	A Protocol to access web pages	P - DNS
2	Translate a URL to an IP address	Q - FTP
3	The protocol which transfer files via the internet	R - HTTP
4	Used to uniquely identify a web page	S - URL

Which of the following shows correct correspondence?

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| (1) 1 – R , 2 – P , 3 – S , 4 – Q | (3) 1 – R , 2 – P , 3 – Q , 4 – S |
| (2) 1 – P , 2 – Q , 3 – S , 4 – R | (4) 1 – S , 2 – Q , 3 – P , 4 – R |

27. Consider the following applications related to cloud computing

- A – Providing E-Mail facility through E-Mail server
- B – Several people creating a presentation using prezi software via the internet
- C – Storing and retrieving information when required from computer of a company

Which of the above statements are correct?

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

28. How many bits per pixel (bpp) are required to represent 128 colors?

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

29. Which of the following best describes  icon in the Victorian Giotto software?

- (1) To add picture to the work stage                      (3) To crop image  
(2) To edit picture                      (4) To compress image

30. Which of the following helps to bridge the digital divide?

- A – Providing free internet facilities.  
B – Establishing computer centres for rural community.  
C – Motivating students to select ICT subject in the school.

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

31. Consider the following statements about computer virus.

- A – Computer virus is a manmade programme  
B – It spreads rapidly  
C – Computer virus affects the human body in a harmful manner.

Which of the above is/are correct?

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

32. A system development team prepares a prototype of the system they wish to develop, shows it to the users and obtains the relevant approval, then hopes to set up a new information system. What system development model they are using here?

- (1) Prototype model                      (3) Spiral model  
(2) Waterfall model                      (4) Iterative Incremental model

33. What is the result after evaluating of the following expression considering the operator precedence of programming languages?

$$19 \text{ MOD } 4 + 1 + (6 * 4) / 8 + 6$$

- (1) 10                      (2) 13                      (3) 17                      (4) 20

34. How many times will the following pseudocode execute?

```
Begin
  X = 0
  Y = 1
  Repeat
    X = 2*X + 1
    Y = Y + 2
    Display X + Y
  Until X > Y
End
```

- (1) 4  
(2) 3  
(3) 2  
(4) 1

35. Consider the following pseudocode segment.

```

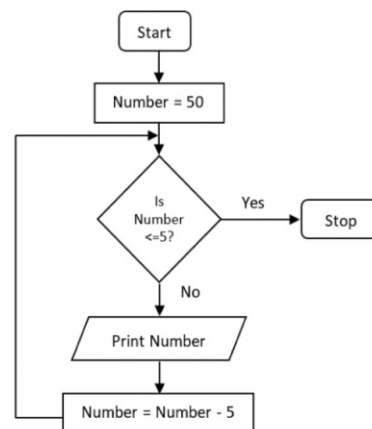
Begin
    Input IQMarks, InterviewResult
    If IQMarks > 75 then
        If InterviewResult = "Pass" then
            JobStatus = "Selected"
        End If
    End If
End
    
```

Which of the following is equivalent to the logic of the above pseudocode.

- (1) If IQMarks > 75 AND InterviewResult = "Pass" then "JobStatus = "Selected".
- (2) IQMarks > 75 OR InterviewResult = "Pass" then "JobStatus = "Selected".
- (3) IQMarks > 75 then "JobStatus = "Selected".
- (4) InterviewResult = "Pass" then "JobStatus = "Selected".

36. What would be the output of following flow chart?

- (1) 5, 10, 15, 20, 25, 30, 35, 40, 45, 50
- (2) 10, 15, 20, 25, 30, 35, 40, 45, 50
- (3) 50, 45, 40, 35, 30, 25, 20, 15, 10, 5
- (4) 50, 45, 40, 35, 30, 25, 20, 15, 10



37. The marks obtained by 10 candidates for the interview are given in the following array **I\_Marks**, which has indexing starting at 0.

I_Marks:	50	56	38	73	81	24	92	65	28	81
----------	----	----	----	----	----	----	----	----	----	----

Which of the following index items can be used to retrieve the lowest mark?

- (1) I\_Marks[0]
- (2) I\_Marks[1]
- (3) I\_Marks[5]
- (4) I\_Marks[8]

38. Which control structures are included in the pseudocode given below?

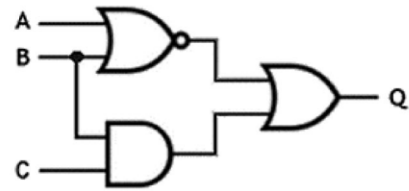
```

Begin
    Count = 0
    While Count <= 50
        Input Units
        If Units <= 90 then
            Value = Units * 10
        Else
            Value = Units * 15
        End If
        Display "Bill Value is", Value
        Count = Count + 1
    End While
End
    
```

- (1) Repetition
- (2) Sequence and Selection
- (3) Selection and Repetition
- (4) Sequence, Selection and Repetition

39. Which of the following Boolean expression is equivalent to the output of the given logic circuit?

- (1)  $Q = \overline{(A + B)} + (B \cdot C)$
- (2)  $Q = \overline{AB} \cdot (B + C)$
- (3)  $Q = (\overline{A} + \overline{B}) \cdot (B \cdot C)$
- (4)  $Q = (A + B) + \overline{(B \cdot C)}$



40. Given below is the truth table for a logic gate with inputs A, B and output Q:

A	B	Q
0	0	1
0	1	1
1	0	1
1	1	0

What is the logic gate indicated by the above truth table?

- (1) AND gate
- (2) OR gate
- (3) NAND gate
- (4) NOR gate

\*\*



**Information & Communication Technology**

- Answer **five (05)** questions only, including the **first question** and four others.
- First question carries **20** marks and each of the other questions carries **10** marks.

1. (i) Anula Vidyalaya organized a seminar on Information Communication Technology and the resource person conducting the seminar brought the required electronic presentation, in an external hard disk, which was displayed to the students through a multimedia projector. Keyboard and mouse were used for editing where necessary.

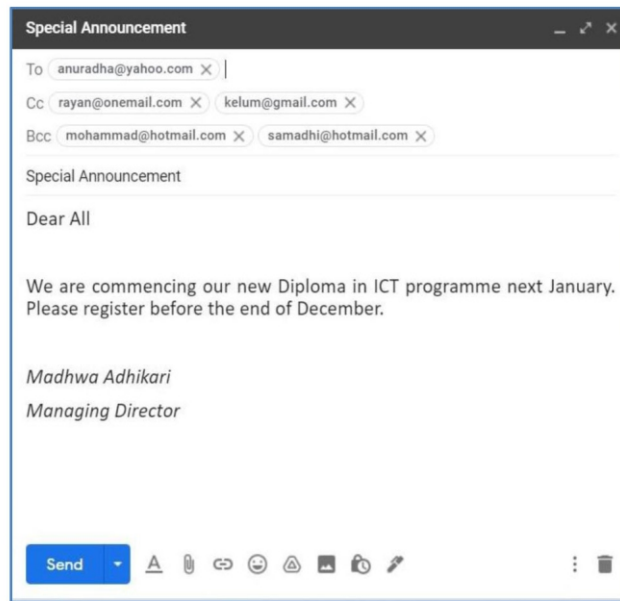
List each input, output and memory device mentioned in the above paragraph.

- (ii)
- (a) Convert the Hexadecimal C50 to equivalent octal number. Show the relevant steps.
- (b) Write the BCD code for 136.
- (iii)
- (a) Draw the logic gate circuit for the following Boolean expression.  $F = (\bar{A} \cdot B) + B$
- (b) According to the above Boolean expression, write the corresponding values for ⊗ and ⊙ in the incomplete truth table.

A	B	F
0	0	⊗
0	1	1
1	0	0
1	1	⊙

- (iv) In order to facilitate the storage of data in a computer, the existing hard disk is logically divided into several parts. This process is a task that should be performed the first time a computer is configured.
- (a) What is the name of this process?
- (b) After being separated into parts, what is the name of those parts?

- (v) Consider the following figure showing a mail sent to Anuradha, Kelum, Mohammad, Samadhi and Rayan by the Managing Director of TechZone Institute.



Assuming that the mail was received by the recipients in the list, write down whether the following statements are true or false. You are required to write only the statement label (a) – (d) and True/False

- (a) Mohammad sees that the mail was sent to Samadhi
- (b) Rayan sees that the mail was sent to Samadhi and Anuradha
- (c) Rayan sees that the mail was sent to Kelum
- (d) Anuradha sees that the mail was sent to Samadhi

(vi)

- (a) Write two language translators.
- (b) Write the output of the flowchart given as Figure 1.

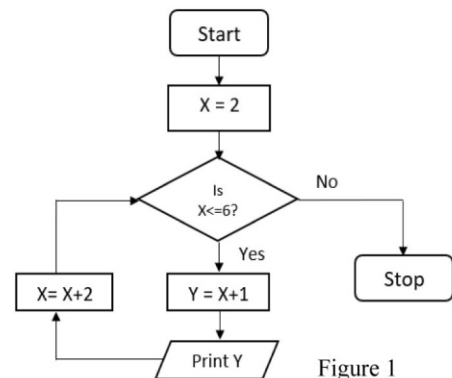


Figure 1

(vii)

- (a) Consider the following computer ports labelled (A) - (D)

(A)	(B)	(C)	(D)
.....	.....	.....	.....

Match each of the above ports with the name of the ports in the following list in the label → port format.

**Ports : {PS/2 port, Parallel port, Serialport, USB port, HDMI port}**

- (b) Write two special features of port “(B)”?

(viii)

- (a) Write two advantages of e- banking systems?
- (b) What is the 3R concept for safe disposal of electronic waste?

- (ix) The following table shows some of the icon labelled (A) - (D) of the Gimp image editing software.

(A)	(B)	(C)	(D)



3. The *Drugs Supply Institute* is an institute that sells drugs which are supplied to the institute by several drugs suppliers. The institute maintains a database with four tables to store the drugs currently in stock, their suppliers, and drugs purchased from suppliers and drugs category, as shown below

Drugs\_Stock Table

D_ID	D_Name	D-Stock	D_Type
D001	Morphine	250600	T
D002	Diazepam	45360	I
D003	Azathioprine	58465	T
D004	Carbamazepine	9800	B

Drugs\_Category Table

D_Type	Category
T	Tablet
B	Bottle
I	Injection

Supplier Table

Sup_ID	Sup_Name	Phone
DS001	Health Care Lab Institute	011-6587985
DS002	Medi Lab Pvt Limited	033-5876489
DS003	Pure Care Pvt Limited	055-5874125

Drugs\_Purchase Table

Date	Sup_ID	D_ID	Quantity
2022/05/14	DS002	D001	300000
2022/08/17	DS001	D002	50000
2022/28/30	DS003	D003	60000
2022/09/15	DS001	D004	10000

- Sup\_ID is not a primary key of the Drugs\_Purchase table. Do you agree with this statement? Give reason
- Briefly explain "**foreign key**" using Drugs\_Stock and Drugs\_Category table in the above database.
- Medicare pharmacy goes to Drugs Supply Institute and purchased 15000 "Morphine Tablets".

Write down the new record(s) to be added to the relevant table(s) for the above change. Use the table name (field1, field2, ....) format for each new record.

- The Drugs Supply Institute decides to add a new drug bottle "Ampicillin" and purchases 6000 of them from the supplier Ayush Medi Pvt Limited on the 2022/10/12.

Write down the new record(s) to be added to the relevant table(s) for the above change. Use the table name (field1, field2, ....) format for each new record.

- What is the DBMS object that used to generate a monthly report about the current stock of medicines?

4.

- Consider the following statements labeled from A to D
  - ..... is an open source web authoring tool
  - A ..... can be used to view a web page created in HTML
  - ..... is a HTML editing software
  - Web sites based on ..... language are static websites

Find the most appropriate term to fill the blank of each statement using the list given below. You are only required to write down the label and the correct term.

**List:**

[ *Hypertext Markup Language, Web Browser, Visual Studio, Web Site, Blue griffon, PHP, Pascal, Cofeecup* ]

- (ii) Match the descriptions given in ⓐ – Ⓢ with the correct terms from the list given below and write down the relevant term against the label.

ⓐ	The system used to uniquely identify various resources in web sites
ⓑ	Delivers web pages to clients using HTTP web browser
ⓒ	Web browser
ⓓ	Store unwanted E-Mails


**List:**

[ Domain Name, Opera, Web Server, Uniform Resource Locator, Google, Spam, File Transfer Protocol, Search engine, Trash ]

- (iii) The HTML source of the web page shown in figure 1 is given in figure 2 with certain missing tags labelled 1 to 12.

## Cloud Computing

---



Cloud computing is the delivery of computing services—including **servers, storage, databases, networking, software, analytics, and intelligence—over the Internet** ("the cloud") to offer faster innovation, flexible resources, and economies of scale..

**There are three services**  
 Infrastructure as a Service - IaaS  
 Platform as a Service - PaaS  
 Software as a Service - SaaS

Advantages and Disadvantages of Cloud computing

Cloud Computing	Advantages	<ul style="list-style-type: none"> <li>Low maintenance cost</li> <li>Excellent accessibility</li> <li>Mobility</li> <li>Unlimited storage capacity and Restore data</li> </ul>
	Disadvantages	<ul style="list-style-type: none"> <li>Internet Connectivity</li> <li>Limited Control</li> </ul>

For more information [click here](#)

**Figure 1 - Web page**

```

<html>
  <head><title> Communication for usage of Internet </title></head>
  <body>
    <1><b>Cloud Computing</b></1>
    <2 size = "2">
    <img 3 ="Cloud-Computing.png" width="200" height = "200">
    <p><font size="2" face="Arial">Cloud computing is the delivery of computing services—including
    <b>servers, storage, databases, <br>networking, software, analytics, and intelligence—over the
    Internet</b> ("the cloud") to offer faster <br> innovation, flexible resources, and economies of
    scale.</b><br></font></p><br>
    <4>
    <5><b>There are three services</b></5>
    <6>Infrastructure as a Service - IaaS</6>
    <6>Platform as a Service - PaaS</6>
    <6>Software as a Service - SaaS</6></4>
    <11 border = "1">
      <7>Advantages and Disadvantages of Cloud computing</7>
      <tr <td 8 ="2"> Cloud <br> Computing</td>
      <td>Advantages</td>
      <td><9 type = "disc">
        <10>Low maintenance cost</10>
        <10>Excellent accessibility</10>
        <10>Mobility</10>
        <10>Unlimited storage capacity and Restore data</10></9></td></tr>
      <tr>
      <td>Disadvantages</td>
      <td><9 type = "disc">
        <li>Internet Connectivity</li>
        <li>Limited Control</li></9></td></tr>
    </11>
    <p>For more information <a 12="http://www.investopedia.com/terms/cloud-computing">
    click here</a></p>
  </body>
</html>

```

Figure 2 - HTML code

Select the correct tags for the labels 1 – 12 of figure 2 from the list given below. Write down each label number and the corresponding HTML tag.

**List**

{ href, li, dd, h2, ol, dt, rowspan, ul, src, hr, dl, table, colspan, br, caption }

5.

- (i) Segment of a word-processed document is shown below with some formatting done. These formatting tasks are labelled as ① - ⑤. Before formatting, all the text in the original document had the same font size.

**Sri Lanka vs Australia 2022:**

*Channels for Live Streaming (country-wise) :*

1. Star Sports and Disney+ Hotstar are available in India.
2. Siyatha TV and Star Sports are both available in Sri Lanka.
3. Foxtel and Kayo in Australia.
4. Willow TV is available in Canada.

**T**he Australia tour of Sri Lanka in 2022 will begin on June 7th and end on July 12th. This Australia tour of Sri Lanka will include a total of ten matches. In total, two teams from Australia will travel to Sri Lanka in 2022. The following teams will participate in Australia's tour of Sri Lanka: Australia and Sri Lanka. The R.Premadasa Stadium, Khetarama, Colombo, Pallekele International Cricket Stadium, and Galle International Stadium will host all matches during Australia's tour of Sri Lanka. We'll have to wait until the end to see which team wins this series.

Source : <https://thecricketfever.com/>

Following are the icons of some formatting tools in a word processing software.

<b>Icon of the formatting tool</b>								
<b>Icon label</b>	Ⓟ	Ⓠ	Ⓡ	Ⓢ	Ⓣ	Ⓤ	Ⓥ	Ⓦ

Identify the icons of formatting tools, indicated by the labels Ⓟ - Ⓦ which are required to do the formatting tasks indicated by the labels ① - ⑤. Write down the label of each formatting task ① - ⑤ and its matching icon label of the formatting tool in the task **label** → **icon** label format.

- (ii) The below spreadsheet shows some information about the sales of different types of clothes in a month by a ready-made garment sales company.

	A	B	C	D	E	F	G	H
1	<b>Sales Profit in April</b>							
2								
3	<b>Item Code</b>	<b>Clothing Type</b>	<b>Cost Price</b>	<b>Sales Price</b>	<b>No of Items Sold</b>	<b>Total Cost for Each Item</b>	<b>Total Sales Price for Each Item</b>	<b>Profit</b>
4	S0003	Skirt	Rs. 510.00	Rs. 890.00	15	Rs. 7,650.00	Rs. 13,350.00	Rs. 5,700.00
5	B0015	Blouse	Rs. 850.00	Rs. 1,395.00	34	Rs. 28,900.00	Rs. 47,430.00	Rs. 18,530.00
6	TS011	Tshirt	Rs. 620.00	Rs. 990.00	44	Rs. 27,280.00	Rs. 43,560.00	Rs. 16,280.00
7	F0012	Frock	Rs. 2,100.00	Rs. 2,690.00	78	Rs. 163,800.00	Rs. 209,820.00	Rs. 46,020.00
8	P0017	Pants	Rs. 800.00	Rs. 1,500.00	56	Rs. 44,800.00	Rs. 84,000.00	Rs. 39,200.00
9	J0021	Jacket	Rs. 1,500.00	Rs. 1,990.00	34	Rs. 51,000.00	Rs. 67,660.00	Rs. 16,660.00
10	F0024	Party Frock	Rs. 4,900.00	Rs. 6,500.00	13	Rs. 63,700.00	Rs. 84,500.00	Rs. 20,800.00
11	S0016	Shirt	Rs. 1,550.00	Rs. 2,150.00	42	Rs. 65,100.00	Rs. 90,300.00	Rs. 25,200.00
12								
13				<b>Best Selling Clothing Type</b>	<b>78</b>		<b>Total Profit Of the Month</b>	<b>Rs. 188,390.00</b>
14								

- (a) Write down the formula that should be entered in the cell G4 to find the total sales price obtained during the month from the sale of clothing type with item code S0003.  
(Total Sales Price for Each Item = Sales Price \* No of Items Sold)
- (b) Write down the formula that should be entered in the cell H4 to find the profit earned during the month by selling the clothing type with item code S0003.  
(Profit = Total Sales Price for Each Item - Total Cost for Each Item)
- (c) Assume that the formula entered into the cell H4 is copied to the cell range H5 – H11. Write down the formula displayed in the cell H7.
- (d) Write down the correct formula in the form of  $=function(cell1:cell2)$  that should be entered in the cell H13 to find the total profit of the month.
- (e) Write down the correct formula in the form of  $=function(cell1:cell2)$  that should be entered in the cell E13 to find the best-selling clothing type.
- (f) Write down the most suitable chart type available in spreadsheet software from the given list of charts to show the profit from the sale of each type of clothing:
- List of charts : { area, line, pie, scatter }

6.

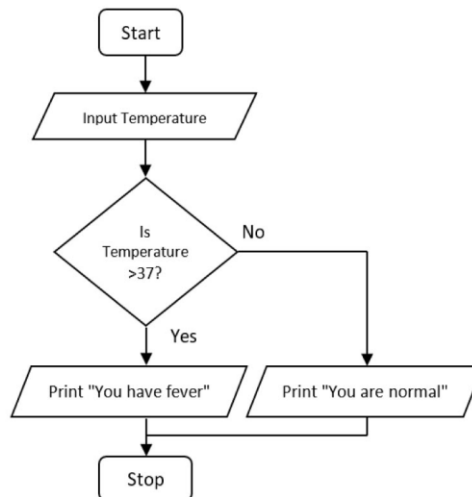
- (i) Nimaya's parents decided to buy their daughter a laptop to facilitate her online education. She said it is essential to have anti-virus software and video conferencing software installed on the computer when purchasing it.
- a) What type of system software should be installed before installing the above software on the Nimaya's computer? Write an example.
- b) Indicate why you need to install the type of system software mentioned in (a) above before installing other software.
- c) What type of system software does antivirus software belong to?
- d) Write an example of video conferencing software.
- e) A printer was also purchased for Nimaya and when the printer is attached to the computer what program must be installed to run correctly?



- (ii) The school management committee decides to prepare a new computerized system instead of the existing student management system which currently runs manually, to make it more efficient. The job has been assigned to a software development company.
- Here, the team first wants to analyze the existing system in order to build up the new system. So write down 3 methods that could be used to gather relevant information.
  - When designing this system it is needed to consider about all the software and other necessities required. At which stage of the system development life cycle does the relevant team carry out these plans?
  - After creating the new system, each part of it is given separate inputs and checked to see if the respective output is obtained. Thus, what is the method of testing the functionality of the development team?
  - The School Management Board decided that it would be appropriate to run both systems together until the staff of the school became familiar with the role of the new system. What is the setup method suggested by the development team to introduce the new system?
- (iii) Write down two reasons why it is essential to maintain a computerized system for a business after it has been created.

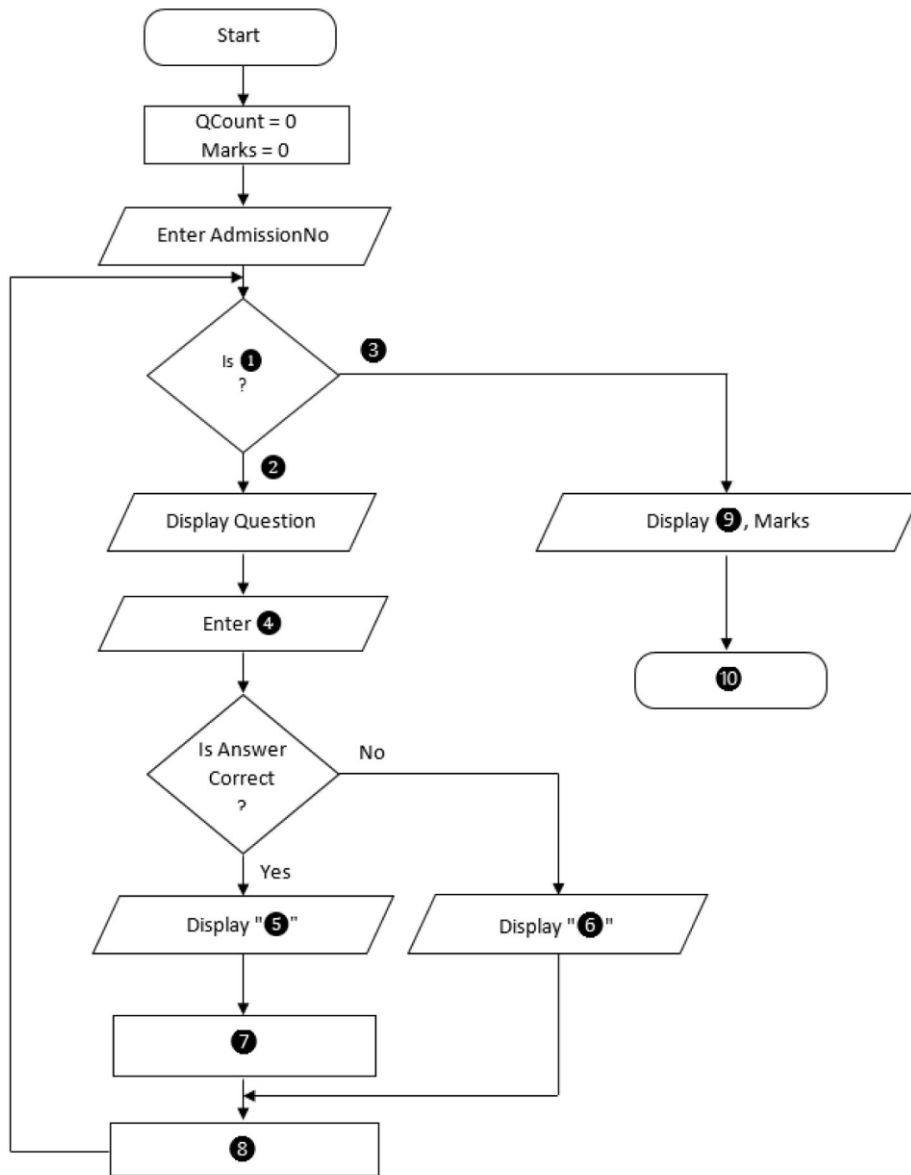
7.

- (i) Write the pseudocode for the algorithm in the flowchart given below.



- (ii) A selection test is conducted online when enrolling students for an online course. Here, an examination number will be issued to each applicant who has applied for the course. Each applicant is randomly assigned to 100 questions from the question bank and each question is allocated one mark. After answering each question, it is displayed in the screen through an instant message whether the answer is correct or wrong. Then the on next question will be displayed on the screen. After answering the 100 questions, the total marks with the exam number will be displayed on the screen.

Following is the incomplete flow chart in order to set up the computer program for that.



From the statements given in brackets, write the appropriate answers to match the labels 1 to 10 in the label → answer.

{ QCount = QCount + 1, Your answer is correct, QCount <=100, End, QCount >100, Yes, Marks <100, Marks = Marks + 1, Stop, AdmissionNo, Your answer is wrong, Answer, No}

(iii) Write one similarity and one difference between variables and Constants in computer program.

\*\*\*