සියලු ම හිමිකම් ඇවිරිණි / முழுப் பதிப்புரிமையுடையது / All Rights Reserved]

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka
ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා
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80	E	I, II

අධ්‍යයන පොදු සහතික පත්‍ර (සාමාන්‍ය පෙළ) විභාගය, 2014 දෙසැම්බර්
கல்விப் பொதுத் தராதரப் பத்திர (சாதாரண தர)ப் பரீட்சை, 2014 டிசெம்பர்
General Certificate of Education (Ord. Level) Examination, December 2014

තොරතුරු හා සන්නිවේදන තාක්ෂණය	I, II
தகவல் தொடர்பாடல் தொழினுட்பவியல்	I, II
Information & Communication Technology	**I, II**

පැය තුනයි
மூன்று மணித்தியாலம்
Three hours

Information & Communication Technology I

Note :

(i) *Answer **all** questions.*

(ii) *In each of the questions **1** to **40**, pick one of the alternatives* (1), (2), (3), (4) *which you consider as **correct** or **most appropriate**.*

(iii) ***Mark a cross** (×) **on the number corresponding to your choice in the answer sheet provided.***

(iv) *Further instructions are given on the back of the answer sheet. Follow them carefully.*

1. In the evolution of computers, the vacuum tube was replaced by the transistor and the transistor was later replaced by the integrated circuit (IC). In this process, the .....Ⓐ..... of the computer increased while the .....Ⓑ..... decreased.
   The suitable terms for Ⓐ and Ⓑ are respectively
   (1) efficiency, physical size (2) efficiency, reliability
   (3) physical size, efficiency (4) physical size, cost

2. Consider the following devices:
   A - Digital camera, B - Speaker, C - Hard disk
   Which of the above is/are usually used as an output device/devices of a computer?
   (1) A only (2) B only (3) A and B only (4) B and C only

3. Which of the following is correct during program execution on the CPU?
   (1) Instructions and data are brought from the main memory.
   (2) Instructions are brought from the main memory and data are brought from the secondary storage.
   (3) Instructions are brought from the secondary storage and data are brought from the main memory.
   (4) Instructions and data are brought from the secondary storage.

4. Kasun who lives in Kandy has created a digital art as an image file on his computer. He wants to share it with his four friends living in Colombo, Jaffna, India and Japan. Which of the following method/s is/are suitable for Kasun to share the image file with his friends?
   A - using file transfer software over a LAN to send the file to his friends' computers
   B - using email
   C - copying the file to four USB flash drives and sending them by post to his friends
   (1) A only (2) B only (3) A and B only (4) A and C only

5. Which of the following is equivalent to the decimal value 131_{10}?
   (1) 10110011_2 (2) 10000011_2 (3) 47_{16} (4) 76_8

6. What is the decimal equivalent of binary 101011_2?
   (1) 27 (2) 35 (3) 43 (4) 75

7. Which of the following has the least value?
   (1) 11001001_2 (2) 145_{10} (3) 77_8 (4) 49_{16}

8. Which of the following has the highest file size?
   (1) .doc file of 1 Mega Byte (2) .gif file of 912 Kilo Bytes
   (3) .txt file of 700 Bytes (4) .jpg file of 1024 Bytes

[see page two

9. If the character 'E' is represented as 1000101_2 in ASCII coding scheme, what is the ASCII code for character 'B'?
(1) 1000001_2 (2) 1000010_2 (3) 1000011_2 (4) 1100101_2

10. Which of the following tools is used to hide or display non printing characters in a word processed document?
(1)  (2)  (3)  (4) 

11. The sentence A below has been formatted to appear as shown in B by using a word processing software:
A - The new curricula for Grades 6 and 10 will be effective from 2015.
B - ***The new curricula for Grades 6 and 10 will be effective from 2015.***
Which of the following tools have been used to obtain B from A?
(1)  and  (2)  and  (3)  and  (4)  and 

12. Consider the sentences and their text alignments within the box given below:

(A) ICT is an optional subject for the GCE (OL) examination.
(B) ICT is an optional subject for the GCE (OL) examination.
(C) ICT is an optional subject for the GCE (OL) examination.

The text alignment used in each of the above sentences A, B and C respectively is
(1) right, left and center. (2) left, right and center.
(3) left, center and right. (4) right, center and left.

- Questions **13** and **14** are based on the following spreadsheet fragment.

	A	B	C	D
1				
2	2	3	5	
3	4	5		
4	6			
5				
6				
7				

13. The cell A4 contains the formula =A2+A3
Which of the following values will be displayed if this formula is copied to the cell A5?
(1) 2 (2) 4
(3) 6 (4) 8

14. The formula =sum(A2:B2) is written in the cell C2.
Which of the following will be written in cell C3, if the formula in C2 is copied to cell C3?
(1) =sum(A2:A3) (2) =sum(B2:B3)
(3) =sum(A2:B2) (4) =sum(A3:B3)

15. Consider the following statements related to electronic presentation software:
A - The shortcut key combination Ctrl + M can be used to insert a new slide to a presentation.
B - The shortcut key combination Ctrl + N can be used to create a new presentation.
Of the above statements
(1) only A is correct. (2) only B is correct.
(3) both A and B are correct. (4) both A and B are incorrect.

16. A database table contains data about sports items available for sale in a shop. Available sports items are cricket bats, tennis balls, volley balls, net balls and badminton rackets. Data about one sports item in the table is a
(1) field. (2) foreign key. (3) form. (4) record.

17. A shop that sells clothes has many suppliers. Each supplier can supply several clothing items. Which of the following is most suitable as the primary key in a database table that contains data about clothing items available for sale in this shop?
(1) item_code (2) price (3) quantity (4) supplier_code

[see page three

18. Which of the following is correct about relationships in a relational database?
(1) A relationship is an association between two rows in a table.
(2) A relationship is an association between two columns in a table.
(3) A relationship is an association between two tables.
(4) A relationship is an association between two databases.

19. Which of the following statements is **incorrect** regarding files in a computer?
(1) Files are used to store data in a computer.
(2) A file name can be changed.
(3) It is possible to create folders inside a file.
(4) A file name can have an extension such as .doc or .txt.

20. The four stages of solving a problem using a computer are given below. However, these stages are **not** in the correct order.
A - Writing a computer program
B - Analysing the problem in terms of input, process and output
C - Testing the computer program
D - Developing an algorithm for the problem
The correct order of the above four stages are
(1) A, D, B, C (2) B, A, C, D (3) B, D, A, C (4) D, A, B, C

21. Consider the following statements:
- The step by step process for solving a problem is known as .....Ⓐ.....
- A pseudo code does not depend on .....Ⓑ..... of a programming language.
- Graphical representation of the sequence of operations in a program is called .....Ⓒ.....

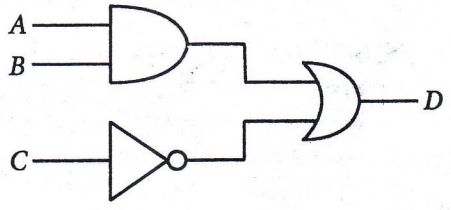
The correct terms to fill the blanks Ⓐ, Ⓑ and Ⓒ in the above three statements are respectively,
(1) an algorithm, a flowchart, the syntax. (2) the syntax, an algorithm, a flowchart.
(3) an algorithm, the syntax, a flowchart. (4) a flowchart, an algorithm, the syntax.

22. The following pseudo code is used to select candidates based on Age, Height and Weight to call for an interview for a certain job.
If (Age >= 21 AND Age <= 40) AND (Height >= 155 OR Weight >= 55)
Then output 'Qualified for Interview'
Else output 'Not Qualified for Interview'
Two candidates Sumith and Raju have the following values for Age, Height and Weight.

Name	Age	Height (cm)	Weight (kg)
Sumith	26	157	52
Raju	33	154	54

Who will be qualified for the interview?
(1) Sumith only (2) Raju only
(3) Both Sumith and Raju (4) None of them

23. Consider the given logic circuit:
If A = 1 and D = 0, then which of the following is correct?
(1) B = 0 and C = 0
(2) B = 0 and C = 1
(3) B = 1 and C = 1
(4) B = 1 and C = 0



24. Consider the Boolean expression $D = A \cdot B + \overline{C}$.
Which of the following is correct?
(1) if $A = 0$ and $B = 1$ then $D = 1$ irrespective of what C is
(2) if $A = 1$, then $D = 1$ irrespective of what B and C are
(3) if $B = 0$, then $D = 0$ irrespective of what A and C are
(4) if $C = 0$, then $D = 1$ irrespective of what A and B are

[see page four

● Questions **25** to **27** are based on the following pseudo code algorithm segment which calculates the sum of odd numbers between 0 and 10.

```
sum = 0
num = 1
while num < 10
        sum = sum + num
        num = num + 2
end while
```

25. How many times will the while loop be executed?
(1) 5 (2) 6 (3) 10 (4) 11

26. What is the value of *num* after the execution of this pseudo code?
(1) 3 (2) 7 (3) 9 (4) 11

27. Which of the following is required to replace the statement in line 2 of the above pseudo code to calculate the sum of even numbers in the same range?
(1) num = –1 (2) num = 2 (3) sum = 1 (4) sum = 2

28. Consider the following two control structures, A and B:

A - *Do Until <condition>*
Statement 1
Loop

B - *Do*
Statement 2
Loop Until <condition>

Which of the following is true regarding the control structures A and B above?
(1) Both *Statement 1* and *Statement 2* are executed at least once.
(2) *Statement 1* is executed at least once but *Statement 2* is executed depending on the condition.
(3) *Statement 2* is executed at least once but *Statement 1* is executed depending on the condition.
(4) Both *Statement 1* and *Statement 2* are executed for a fixed number of cycles.

29. Every computer on the Internet has a unique address called the
(1) IP address. (2) Email address. (3) URL. (4) Domain name.

30. Which of the following shows the protocol part of http://moodle.scnet.lk/local/index.html?
(1) index.html (2) .html (3) http (4) moodle.scnet.lk

31. Consider the following incomplete sentence:
..... is **one** of the **main stages** in the System Development Life Cycle (SDLC).
Which of the following is most suitable to fill the blank in the above statement?
(1) Conducting interviews (2) Code testing and debugging
(3) Collecting test data (4) Writing the user manual

32. After automating the existing manual student administration system of your school office, a direct implementation instead of a parallel implementation has been proposed. Which one of the following is correct about direct implementation?
(1) A higher cost is involved in direct implementation than in parallel implementation.
(2) More man power is required in direct implementation than in parallel implementation.
(3) It is difficult to go back to the manual system when problems are encountered in the automated system.
(4) Direct implementation needs more physical space in the school office than parallel implementation.

33. Your school decides to automate the activities of the school library. You are in a team which has been assigned to gather the requirements of the new system. One of your team members proposes the following techniques for this purpose:
A - Conducting interviews
B - Distributing a questionnaire
C - Observing documents
Which of the above techniques are appropriate to gather this information?
(1) A and B only (2) A and C only (3) B and C only (4) All A, B and C

[see page five

34. Consider the following statements regarding multimedia animation:
A - Flash is a software used for animation.
B - You can draw and edit an object on one layer without affecting objects on another layer.
C - In the Timeline, you work with frames and key frames to maintain the order of appearance of objects.
Which of the above statement(s) is/are correct?
(1) A only (2) A and C only (3) B and C only (4) All A, B and C

35. Consider the following statements regarding the world wide web (www):
A - Web pages are written in HTML.
B - www is a system of interlinked hypertext documents accessed through the Internet.
C - A website consists of a collection of web pages.
Which of the above statements are correct?
(1) A and B only (2) A and C only (3) B and C only (4) All A, B and C

36. Consider the following HTML segment:

```
<html>
<body>
    <H2> Three Subjects </H2>
        <OL TYPE =1>
            <LI> Mathematics
            <LI> Science
            <LI> English
        </OL>
</body>
</html>
```

The output of the above HTML code segment would be:

(1) Three Subjects
- Mathematics
- Science
- English

(2) Three Subjects
- Mathematics
- Science
- English

(3) Three Subjects
1. Mathematics
2. Science
3. English

(4) Three Subjects
1. Mathematics
2. Science
3. English

37. Which of the following statement(s) is/are true regarding Telemedicine?
A - The Internet or other network systems are used to maintain the connection between the doctor and the patient.
B - Patients in local medical institutions with network connections could be remotely examined by specialist doctors residing in distant locations.
C - Telemedicine could be used to improve the efficiency of clinical, medical, health education, administrative and research activities.
(1) A only (2) A and B only (3) A and C only (4) All, A, B and C

38. Which of the following can be considered as transactions that can be performed using the Internet?
A - Placing an order to send gift items to friends
B - Requesting to reserve accommodation for a holiday
C - Placing an order for a preferred dress after a fit-on
(1) A and B only (2) A and C only (3) B and C only (4) All A, B and C

39. Which of the following can be potential sources of computer viruses?
A - Pirated software
B - Scanner
C - Shared flash drive
(1) A and B only (2) A and C only (3) B and C only (4) All A, B and C

40. Which of the following help(s) to bridge the Digital Divide?
A - Providing computer laboratory facilities to schools which do not have computing facilities.
B - Establishing community centres with Internet connectivity for rural communities.
C - Motivating students to select the ICT subject for their Ordinary Level examination.
(1) A only (2) A and C only (3) B and C only (4) All A, B and C

* *

[see page six

සියලු ම හිමිකම් ඇවිරිණි / முழுப் பதிப்புரிமையுடையது / All Rights Reserved]

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා
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Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka
ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා
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80	E	I, II

අධ්‍යයන පොදු සහතික පත්‍ර (සාමාන්‍ය පෙළ) විභාගය, 2014 දෙසැම්බර්
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General Certificate of Education (Ord. Level) Examination, December 2014

තොරතුරු හා සන්නිවේදන තාක්ෂණය I, II
தகவல் தொடர்பாடல் தொழினுட்பவியல் I, II
Information & Communication Technology I, II

Information & Communication Technology II

Note :

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

1. (i) Lakmal travels around the country to sell computer parts and accessories. After each sale, he enters the sales details into his tablet computer using the touch screen. At the end of the day he views the total sales details. What is the (a) input device (b) output device used by Lakmal?

(ii) Copy the Column **A** and Column **B** to your answer sheet and connect each item in Column **A** with the related item in Column **B** using arrows:

Column **A**
A service of Internet
A Web Browser
An email software
A search engine

Column **B**
Mozila Firefox
Google
World Wide Web (WWW)
Roundcube Webmail

(iii) The following table contains descriptions of three different network types denoted as **A**, **B** and **C**.

Network Type	**Description**
A	Two or more computers directly linked within a small well-defined area such as a school computer lab.
B	A Network that connects users across a large distance such as between Colombo and New York.
C	A Network that links together branches of a bank within a city.

Select the most suitable network type for **A**, **B** and **C** from the following list.

List : Wide Area Network, Local Area Network, Metropolitan Area Network.

(iv) To get qualified for an award, students in a class must satisfy both the following conditions:

Condition 1: must have marks > 75% in subject 1

Condition 2: must have marks > 75% in either subject 2 or subject 3

The Boolean variables **X**, **Y** and **Z** are defined as follows:

X is true if a student has >75% marks for subject 1.
Y is true if a student has >75% marks for subject 2.
Z is true if a student has >75% marks for subject 3.

(a) Write down a Boolean expression using variables **X**, **Y** and **Z** to represent the overall conditions that a student must satisfy to qualify for the award.

(b) Draw a logic circuit equivalent to the Boolean expression in (a) above.

(v) Convert the hexadecimal number $A7B_{16}$ into its equivalent binary number. Show your computations.

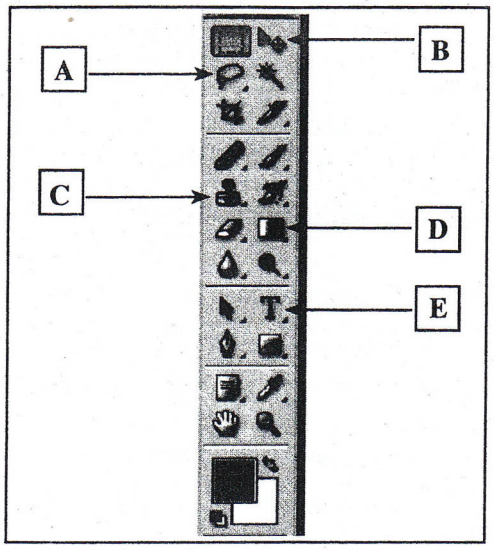
(vi) Encoding schemes are used to represent characters and symbols within computers. List **two** different encoding schemes.

[see page seven

(vii) (a) List **two** kinds of input devices that allow us to input digital images directly into a computer.

(b) List **two** kinds of data storage media that can be used to exchange data or programs between two users.

(viii) The following image shows a part of a frequently used toolbar of a certain image editing software. Write down the functions performed by each of the tools labeled as A-E.



(ix) Consider the following pseudo code segment:

```
Sum = 0
Num = 10
While Num >= 0
    Sum = Sum + Num
    Num = Num - 2
End While
```

What are the values of *Sum* and *Num* when the execution of the While loop is completed?

(x) Write down a suitable phrase from the list given below, to fill each blank in the following statements (a) and (b).

(a) The physical pains that occur as a result of involving in the same task for a long period of time are called ..... .

(b) The condition of eyes such as dry eyes, blurred vision and double vision resulting from computer usage is called ..... .

List : Carpel Tunnel Syndrome, Computer Vision Syndrome, Repetitive Stress Injuries

2. The following worksheet in a spreadsheet software provides a sample of information to process monthly payments for October for casual employees in a company.

	A	B	C	D	E	F	G
1	Employee Number	Employee Name	Daily Rate Rs.	Attendance in October	Monthly Payment	Bonus Rs.	Bonus Rate
2	E0001	Aruna	1,050.00	23			10%
3	E0002	Ashok	1,150.00	23			
4	E0003	Chethana	950.00	23			
5	E0004	Kareem	1,050.00	21			
6	E0005	Milanda	1,050.00	19			
7	E0006	Praveen	1,100.00	22			
8	E0007	Samantha	1,100.00	20			
150	E0149	Rahuman	1,050.00	18			
151	E0150	Shakya	1,000.00	23			

[see page eight

(i) *Monthly payment* for an employee is calculated by multiplying the *Daily Rate* by the *Attendance* in that month. Write the necessary formula which should be written in cell E2 to display the *monthly payment* of the employee with *Employee Number* E0001 for the month of October.

(ii) The steps necessary to calculate the monthly payments for October for the rest of the employees are given below:

Select cell .....(A).....
Click on icon for .....(B).....
Select the range .....(C)..... to .....(D).....
Click on the icon for .....(E).....

Select the correct terms for the labels (A) to (E) from the list given below.

List of terms: Paste, Cut, Copy, E3, E2, E151

(iii) A monthly *bonus* is paid to all employees. The *bonus rate* for October is given in cell G2. The amount of *Bonus* is calculated by multiplying the *Monthly Payment* by the *Bonus Rate*. Write down the formula to display the *Bonus* in cell F2, for the employee with *Employee Number* E0001, assuming that this formula will be copied to other cells to calculate the *bonus* for all the employees.

(iv) Write down the formula in F3 when the formula written in (iii) above is copied to cell F3 to calculate the *Bonus* for the employee with *Employee Number* E0002.

3. Consider the following database tables that store data about books, students and books borrowed by students in a school library.

Book Table

BookID	Book_Title	Borrowed
B1001	Oliver Twist	True
B1002	Curious George	False
B1003	Harry Potter	True
B1004	Thennali Raman	True
B1005	Arthur	False
B1006	Manuthapaya	True
B1007	Gamperaliya	False

Borrowing Table

Date	BookID	S_ID
21/8/2014	B1001	S003
15/9/2014	B1003	S002
15/9/2014	B1004	S002
15/9/2014	B1006	S001

Student Table

S_ID	Student_Name
S001	Mithun
S002	Geetha
S003	Niyas
S004	Kumar

(i) List **two** primary key values.

(ii) The library added a new book to the library with Book_Title 'Lion King' and BookID 'B1008'.

(a) What table(s) need(s) to be updated?

(b) Show the updated row(s) of the table(s).

(iii) Kumar goes to library on 25/10/2014 and borrows the book 'Arthur'.

(a) What table(s) need(s) to be updated?

(b) Show the updated row(s) of the table(s).

4. (i) Write down **two** methods of creating HTML web pages.

(ii) Copy the Columns **X** and **Y** given below into your answer script and draw arrows between matching items in Column **X** and Column **Y**.

Column **X**
Domain Name
IP address
Email address
URL

Column **Y**
doe@gov.lk
http://www.doenets.lk/exam/index.html
216.27.16.138
ac.lk

[see page nine

(iii) Consider the HTML source code and its corresponding output given in the Table. The code has ten HTML tags indicated by labels ❶ to ❿. Select the correct tags from the list given below. You are only required to write down the label number and the corresponding HTML tag.

List: HREF, HR, OL, BODY, SRC, HTML, UL, TR, TABLE, TH, TD, TITLE

Source Code	Output

```
<❶>
 <HEAD>
   <TITLE> XYZ Training Center Web Site </TITLE>
 </HEAD>
<❷>
<CENTER>
<H1> XYZ TRAINING CENTER </H1>
<IMG ❸ ="sports.gif">
</CENTER>

<P>
XYZ is the leading Training center in the Western
province and provide efficient and quality service for
the sports loving community. </P>
<H4> We offer the following sports activities </H4>
<❹>
<H5>
<❺>
  <LI>Indoor Activities
     <❻>
      <LI> Table Tennis
      <LI> Badminton
     </❻>
  <LI>Outdoor Activities
     <❻>
      <LI> Swimming
      <LI> Tennis
     </❻>
</❺>
</H5>

<❼ BORDER=3 >

<CAPTION> Activity Charges </CAPTION>

<❽> <❾> Activity </❾> <TH> Monthly
Charge</TH></❽>
<❽> <TD> Swimming </TD> <TD> Rs. 300</TD></❽>
<❽> <TD> Tennis</TD><TD> Rs. 500</TD></❽>
<❽> <TD> Table Tennis</TD><TD> Rs. 200</TD></❽>
<❽> <TD> Badminton </TD><TD> RS.250</TD></❽>

</❼>

<BR>
For further enquiries and reservations
<A ❿ ="http://xyz.ac.lk">Click Here</A>

</BODY>
</HTML>
```

XYZ TRAINING CENTER

XYZ is the leading Training center in the Western province and provide efficient and quality service for the sports loving community.

We offer the following sports activities

1. **Indoor Activities**
   - **Table Tennis**
   - **Badminton**
2. **Outdoor Activities**
   - **Swimming**
   - **Tennis**

Activity Charges

Activity	Monthly Charge
Swimming	Rs. 300
Tennis	Rs. 500
Table Tennis	Rs. 200
Badminton	Rs. 250

For further enquiries and reservations Click Here

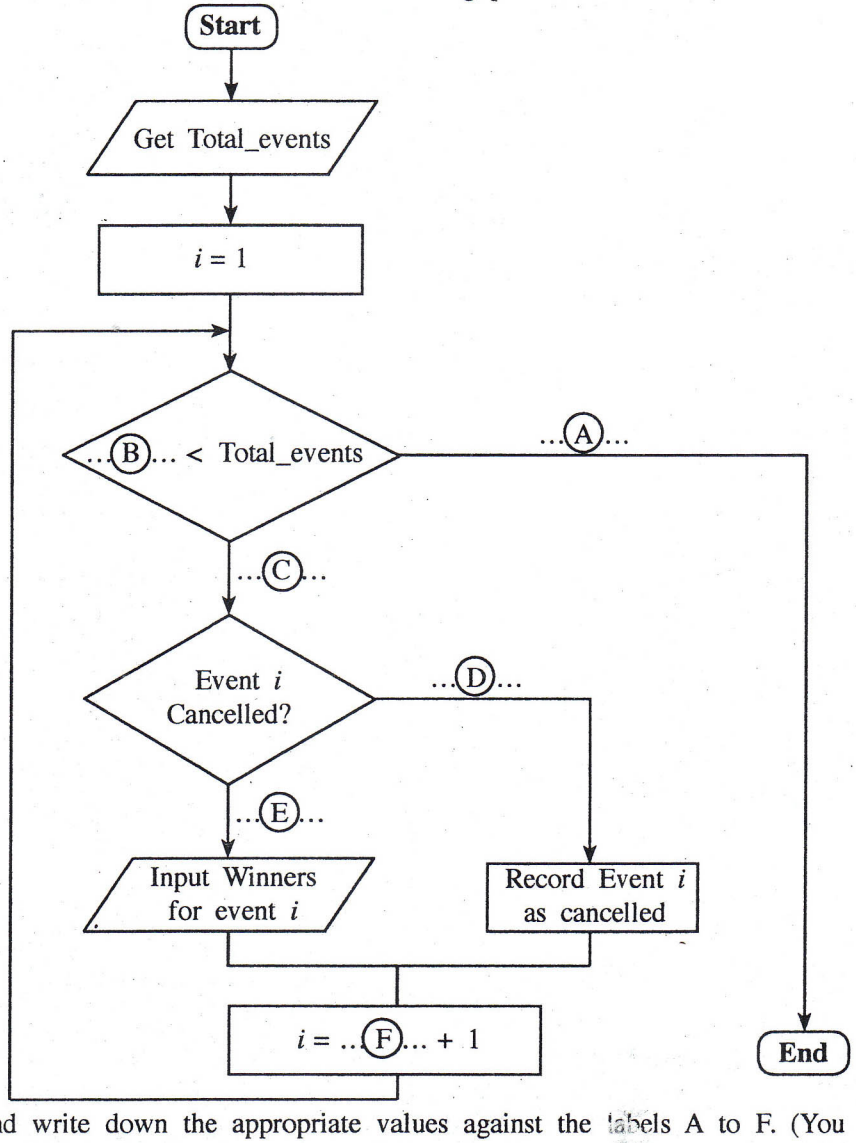
[see page ten

5. (i) The array *numar[]* is defined to store the 10 numbers from 1 to 10. The following *for* loop with missing values in Ⓐ and Ⓑ is used to store the above 10 numbers in *numar[]*.

```
For i = 1 To Ⓐ
    numar[Ⓑ] = i
Next i
```

Write down the relevant values for Ⓐ and Ⓑ.

(ii) The sportsmeet of a certain school has many events. For each event, the names of the winners of the first, second and the third places need to be recorded. Some events may not take place due to some reason. For an event that does not take place, it is necessary to record it as cancelled. The following flowchart with missing labels A to F presents this scenario. Here '*i*' is used as a variable for the event number of the event being processed.



Identify and write down the appropriate values against the labels A to F. (You are not required to copy the flowchart to your answer script.)

(iii) Consider the following pseudo code to calculate the Body Mass Index (BMI) for each student of a class.

```
input total_students
For i=1 To total_students
    input height
    input weight
    BMI = weight/(height)²
    output BMI
Next i
```

Draw a suitable flowchart for the above pseudo code.

[see page eleven

6. (i) A Learning (Education) Management System (LMS) is an application of ICT in education sector. Write down **two** other applications of ICT in the education sector.

(ii) An LMS can be used to conduct the activities given in the following table more efficiently and conveniently.
Therefore, the three categories students, teachers and school administration are benefited.

Activity Number	Activity
1	registration of students
2	marking students attendance register
3	issuing of certificates
4	conducting preliminary tests to assess students' skills
5	conducting school based assessments
6	using multimedia enriched lessons for self studying
7	using multimedia enriched lessons to classroom teaching
8	ability to access preferred lesson at a preferred time

Identify which category is mostly benefited by using the LMS for each of the above activities and write the respective category against the activity number.

(iii) The software that are meant to adversely affect computer systems is known as malicious software (malware). 'Computer virus' is one type of malware.

(a) Write **two** other types of malware.

(b) Write down **two** kinds of damages caused by a computer virus.

(c) Write down **two** methods to protect a standalone computer from virus infection.

7. (i) Consider the expressions about the System Development Life Cycle (SDLC) given in the Column **X** and Column **Y** below.

Column **X**	Column **Y**
1. A characteristic of a system	A - final stage of testing and debugging of a system
2. An example for a system	B - having discussions with the client
3. A main fact gathering technique	C - next phase can be considered only if the current phase is successful
4. A tool used in detailed design	D - is made up of different components
5. User acceptance testing	E - flowchart
6. An advantage of phased implementation	F - transactions of school canteen.

Each expression in Column **X** has a correspondence to one of the expressions in Column **Y**. Select each expression in Column **X** and write down its corresponding expression in Column **Y**.

eg: 1 ⟶ D

(ii) Using the world wide web (www) to find information is a common practice today.

Assume that you have a computer with required software at your home.

(a) Name **one** hardware device needed to connect the computer to the Internet.

(b) Assume that you want to find information about the 'History of Sri Lanka' and that you do not know the web address (URL) of a website that has this information.

Write the steps you would follow to find this information on the world wide web.

* * *