ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව **ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව**විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்க
Department of Examinations, Sri Lanka Department **இலங்கைப் பரீட்சைத் திணைக்களம்**ons, Sri Lanka

| | GIT | 01 | E | I,II |

Department of Examinations, Sri Lanka

சாமான்ய தொழில்நுட்ப விசாரணை

සාමාන්‍ය තොරතුරු තාක්ෂණ විභාගය,	2016
பொதுத் தகவல் தொழினுட்பவியல்,	2016
General Information Technology Examination,	2016

සාමාන්‍ය තොරතුරු තාක්ෂණය	I, II
பொதுத் தகவல் தொழினுட்பவியல்	I, II
General Information Technology	I, II

General Information Technology II

✻ *Answer* **four** *questions only.*

1. (a) In order to provide security for the computer laboratory in a school, students who have permission to use the laboratory are required to enter their school admission number (X) and a password (Y) to a device installed at the door. If both the admission number and the password are correct, the door (Z) will be opened. If either one of them or both are incorrect, the door will not be opened.

    Consider the following states:

Scenario	State
Admission Number (X) and Password (Y) are correct	'1'
Admission Number (X) or Password (Y) or both are incorrect	'0'
Door (Z) will be opened	'1'
Door (Z) will not be opened	'0'

    (i) Copy the following table to your answer book and fill in the column for state of Z.

State of X	State of Y	State of Z
0	0	
0	1	
1	0	
1	1	

    (ii) Draw the logic gate represented by the above table. Indicate the inputs and the output clearly.

    (b) Draw the equivalent logic circuit diagram for the following expression:

    (A AND (NOT)B) OR NOT(A) = C

    (c) **During the same period**, three students groups of a class have been assigned the following activities to be completed using a suitable and available computer.
      (i) Enter data about growth of plants, in the field.
      (ii) Record sounds of birds at a level above the ground, take photographs in the environment and enter relevant data.
      (iii) Enter a set of data written in a CR book, to the computer.
         The class has a desktop computer, a laptop computer and a palmtop computer.
         Identify the most suitable type of computer to carry out each of the above activities and
         write down the type of the computer against the activity number in your answer book.

    (d) Consider the following scenario:

    A student needs to prepare a report using a word-processing software package ⓟ. Before start typing the report, she scans the hard disk of the computer using an antivirus software ⓠ. After completing her report, she used a backup software ⓡ provided by the operating system ⓢ to back up all the files in a specific folder in the hard disk to a flash memory stick.

    Identify and write down the correct software type of ⓟ, ⓠ, ⓡ and ⓢ in the above paragraph from the list of terms given below.
    List of Terms: {Application software, Systems software, Utility software}

2. (a) Consider the following paragraph with blank spaces numbered from (1) to (6).
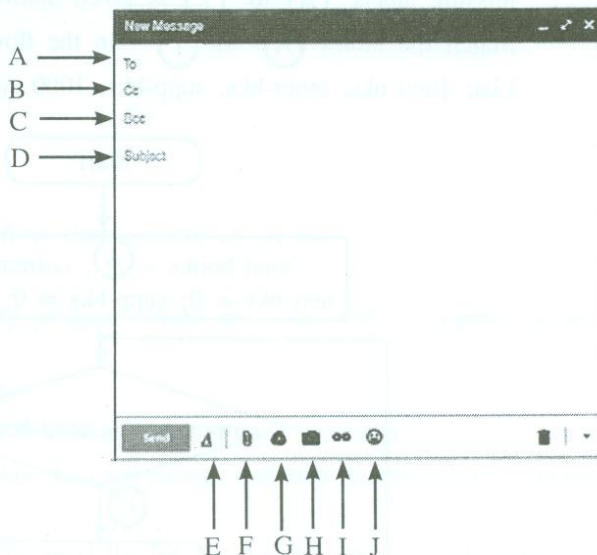
Amali visited the website of the Department of Examinations by typing the _____(1)_____ of the website in the _____(2)_____ of the _____(3)_____. From the home page of the website, she accessed the relevant web page by clicking on the correct _____(4)_____. The website of the Department of Examinations is part of the _____(5)_____ and we cannot access websites without the services of the _____(6)_____.

Identify the most suitable term to fill the blank spaces of the above paragraph using the list of terms given below.
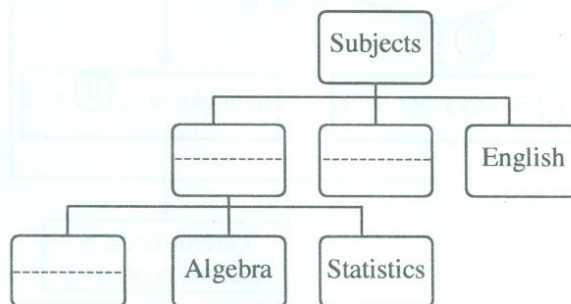
List of terms: {address bar, email, hyperlink, Internet, URL, web browser, WWW}

Note: Write down the relevant term against the number assigned to the blank space.

(b) Azma has taken a photograph of a heard of elephants during her recent visit to Yala National Park. She wants to share her experience and the photograph with her friends through email. She opened a new email window similar to the figure shown right. Fields and icons displayed in the email window are labelled as A - J.

(i) The title of the email Azma wants to send is 'My visit to Yala'. Write down the corresponding letter of the field she should use to include the title of the email.

(ii) Write down the corresponding letter of the tool Azma needs to select in order to attach her photograph to the email.

(iii) Azma wants to send her email to Amila. Write down the corresponding letter of the field she should add the email address of Amila.

(iv) Azma also wants to send a copy of her email to Varuni. However, she does not want Amila to know that a copy of the email sent to Varuni. Write down the letter of the corresponding field she should add the email address of Varuni.

(v) The following day Amila replied to Azma thanking for the information about the visit and the photograph. In which folder of her email account will Azma usually find the email received from Amila?

(vi) After two days, Azma wants to access her email sent to Amila and Varuni again. Write down the name of the folder of her email account where she could usually find this email.

(c) The diagram shown below is a directory tree structure with blank spaces.

Copy this diagram to your answer book and fill in the blank boxes with correct labels by considering the following:
   (i) 'Science' is a sub directory of the parent directory 'Subjects'.
   (ii) The parent directory of 'Geometry' is 'Maths'.

3. (a) Consider the following sentences with blank spaces related to presentation software.

   (i) A .... can be commenced by pressing the function key F5 on the keyboard.

   (ii) The orientation of a slide can be changed through the .... window.

   (iii) .... are the animation-like effects that occur in slide show view when move from one slide to the next.

   (iv) View of your slides in thumbnail form is called .... view.

   Identify the suitable terms to fill the blank spaces from the list of terms given below.

   List of terms: {slide show/ animations/ help window/ design templates/ page setup/ slide transitions/ slide sorter/ new slide}

   Note: Write down the relevant term against the question number.

(b) **Figure 1** shows a text document partially formatted using a word processing software. Elements to be formatted further in this document are labelled as A-F.

A — How polluted is YOUR country?

B
A staggering 90 per cent globally are breathing poor quality air.
Pollution is blamed for more than six million deaths a year, new stats show.
The problem is worst in cities, but rural air is worse than many think.
Data 'is enough to make all of us extremely concerned,' experts have said.

C
Nine out of ten people globally are breathing poor quality air, the World Health Organization (WHO) said yesterday.

In a staggering report, calling for dramatic action against pollution that is blamed for killing more than 16,000 Brits and six million people worldwide, every year.

New data in a report from the UN's global health body 'is enough to make all of us extremely concerned,' Maria Neira, the head of the WHO's department of public health and environment, told reporters. **E**

D
WHO released an interactive map showing the exposure to pollutants known as PM2.5 for all countries.

It also shows values for pollutants in various cities and towns.

The problem is most acute in cities, the report found, but air in rural areas is worse than many think, WHO experts said.

Poorer countries have much dirtier air than the developed world, according to the report, but pollution 'affects practically all countries in the world and all parts of society', Mrs Neira said in a statement.

F
Read more:
http://www.dailymail.co.uk/sciencetech/article-3809171/Over-90-world-breathing-bad-air-WHO.html#ixzz4LeaZK38e

Figure 1

Figure 2 shows the formatting tools available in a typical word processing software. Using labels 1-17, write down the tool(s) required to complete the following tasks.

Note: **No marks** will be awarded if you write more than the required number of labels.

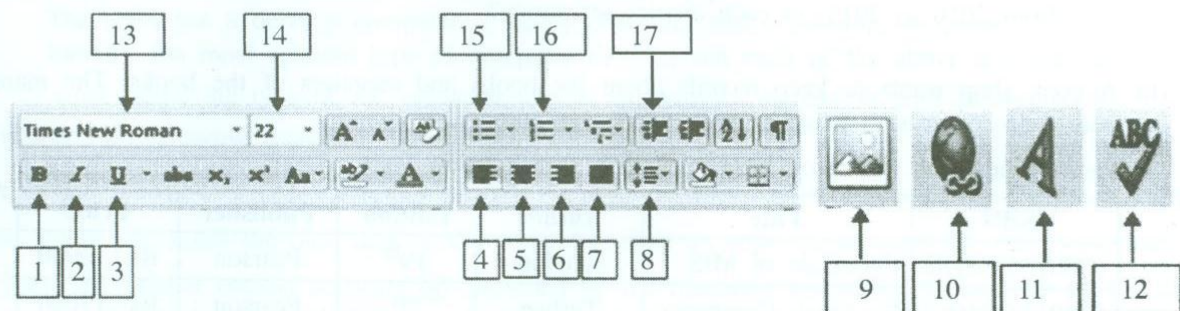**Figure 2**

      (i) Change the appearance of the title of the document shown as **A** to bold face

      (ii) Centre the title of the document

      (iii) Increase the font size of the title to 20

      (iv) Change the appearance of sentences labelled as **B** to a bulleted list

      (v) Left justify the paragraphs labelled as **C** and **D**

      (vi) Convert the text labelled as **E** and **F** to hyperlinks

      (vii) Check the spellings of the document

(c) The past students society of a school purchases an office automation software for its office work, which is licensed for a single user. The secretary of the society decides to provide a copy of this software to each member since it was purchased from the society fund.

    (i) Explain why the decision of the secretary is unacceptable.

    (ii) Give one possible solution to obtain multiple copies of office automation software at a lower cost or free of charge.

4. (a) The number of farmers who cultivated big onions in 2010 - 2015 is shown in the spreadsheet segment given below:

	A	B	C	D	E	F	G	H
1	Number of farmers Cultivated Big Onion 2010 - 2015							
2	District	2010	2011	2012	2013	2014	2015	Average
3	Anuradhapura	4,798	3,239	4,076	4,432	5,557	4,590	
4	Mahaweli H	2,418	1,391	2,831	1,444	3,636	2,249	
5	Matale	3,653	3,426	5,612	4,155	5,452	4,634	
6	Polonnaruwa	223	153	322	305	633	707	
7	Total							
8								
9	Source:	http://www.statistics.gov.lk						
10								

    (i) A formula of the form *=function1(cell1:cell2)* is to be used to calculate and display the total number of farmers cultivated big onion in 2010 in cell B7.

    Write down the correct terms for *function1*, *cell1* and *cell2* in the above formula.

    (ii) It is necessary to copy the formula entered in cell B7 to the range of cells from C7 to G7. The following steps 1-3 show the required steps to achieve this. However, these steps are not in the correct order.
    1. Click on the fill handle
    2. Drag the fill handle to G7
    3. Click on the cell B7

    Re-arrange and write down the steps 1-3 in the correct order.

    (iii) What formula would be displayed in cell C7 after copying the formula in cell B7 to cell C7?

    (iv) It is necessary to write a formula in the form of *=function2(cell3:cell4)* in cell H3, to get the average number of farmers in the Anuradhapura district.

    Write down the correct terms for *function2*, *cell3* and *cell4* in the above formula.

    (v) What is the most suitable graph type to show the variation of the number of big onion farmers from 2010 to 2015, in each district seperately?

(b) A book shop wants to keep records about the books and suppliers of the books. The manager wants your help to create a database system for this purpose.

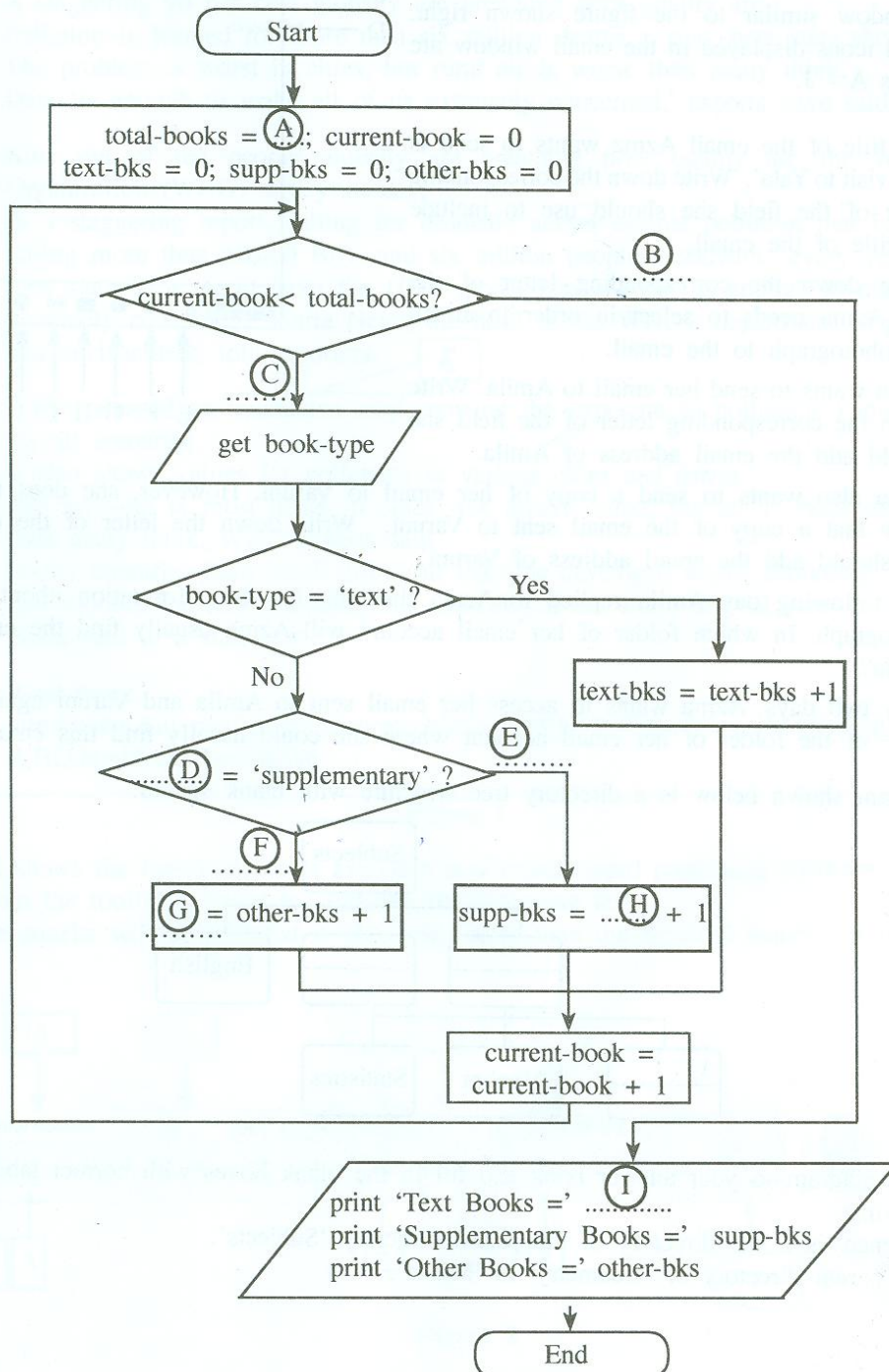Part of the Book table you have created is shown below.

ISBN	Title	Author	Edition	Publisher	Price	SupID
9780134378183	Essentials of MIS	Laudon	19th	Pearson	Rs. 10900	Sup01
9780132146050	Electronic Commerce	Turban	7th	Pearson	Rs. 17000	Sup02
9781305867819	Electronic Commerce	Schneider	9th	Cengage	Rs. 1500	Sup02
9781111529116	New Perspectives on the Internet	Schneider	9th	Cengage	Rs.17000	Sup03

    (i) Write down the appropriate field types for ISBN, Title, Edition and Price.

    (ii) Write down an appropriate field for the primary key.

    (iii) Write down which database component (object) has to be used for the following tasks:
       (1) Enter data or edit data of Book table
       (2) Show formatted output about total sales of books by publishers
       (3) Show titles available for the 'Laudon' as the author

5. (a) All the books in a library of a school are categorized into three types as 'text' books, 'supplementary' reading books and 'other' books. Total number of books in the library is 1000. A computer program is used to count and print the number of books in each category. The flowchart for this activity with some missing labels Ⓐ to Ⓘ is given below.

Match the lables Ⓐ to Ⓘ in the flowchart with the phrases from the following list.

List: {text-bks, other-bks, supp-bks, 1000, yes, no, book-type}

[See page twelve

(b) In a raffle draw tokens in three colours 'red', 'black', and 'white' are placed in a box. Each participant takes a token and wins a gift depending on the colour of the token. This process is presented in the following pseudo code.

```
start
        get token
        if token = "red" then
                        gift = "flash memory stick"
        else if token ="black" then
                        gift ="wallet"
                else
                        gift ="ball point pen"
                endif
        endif
end
```

Draw a flowchart to represent the above pseudo code.

Note: terms in the pseudo code must be used in the flow chart exactly as given.

6. (a) A company uses video conferencing to conduct monthly progress review meetings with its representatives in the branches located in different countries.

    (i) List **three** items essential for video conferencing.

    (ii) Give **two** advantages of video conferencing over traditional face to face meetings.

(b) Online shopping is becoming increasingly popular. Explain **two** advantages and **two** disadvantage of online shopping compared to regular shopping.

(c) Owner of a retail shop decides to buy a computer to be used for his day to day activities. He asks you about the important features and requirements need to be considered in buying a suitable computer to meet his needs.

List **three** technical features and **three** non-technical features/requirements that may be useful to consider in buying a computer.

✳ ✳ ✳