(c)   Study the VB.Net programming code for **btnCheck** and answer the question below.

```
Private Sub btnCheck_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnCheck.Click

Dim Total As Integer
Dim English As Integer
Total = Integer.Parse(txtTotal.Text)
English = Integer.Parse(txtEnglish.Text)

  If Total >= 300 And English > =60 Then
      lblDisplay.Text = "Congratulations! Scholarship Granted"
  Else
      lblDisplay.Text = "Sorry you do not qualify for scholarship"

  End If
End Sub
```

What will be the output of the program if Total is 300 and English is 65?   **(2 marks)**

(d)   Explain **one** purpose of a switch in a network setup.   **(2 marks)**

(f)   Transmission Control Protocol/ Internet Protocol (TCP/IP) is a two layer
       protocol used in data transmission.
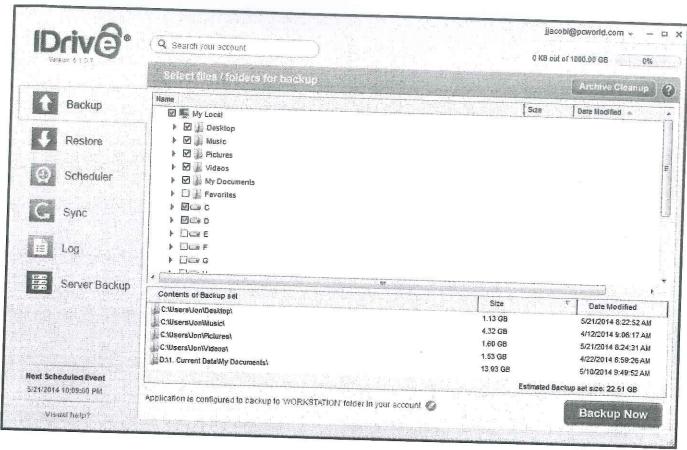   Name **two** processes involved in TCP/IP.   **(2 mark)**

| QUESTION 6 | MANAGING AND MAINTAINING DATA ENIVIRONMENTAL ISSUES, CLIMATE CHANGE AND SAFE PRACTICES | **(10 marks)** |

(a)   What does the word "**big data**" in cloud computing refer to?   **(1 mark)**

(b)   The three most common cloud computing service models are
       Iaas, Paas and SaaS.

   (i)   Which model provides access to application software's often referred
         to as **on-demand** software's.   **(1 mark)**

   (ii)   State what does the IaaS service model provides to its users.   **(1 mark)**

(iii)   State **one** benefit of using cloud storage service.

(1 mark)

(c)   Use the snapshot given below to answer the questions that follow.

Source: Google Image Search

(i)   Name the cloud storage service used in the diagram?

(1 mark)

(ii)   The cloud storage service in the diagram offers continuous syncing of your files. What is **syncing**?

(1 mark)

(d)   Dedicated hosting is a service model of data centre.
Define **dedicated hosting** data centre.

(1 mark)

(e)   Disrupting ecology is one of the harmful effects of technology on our environment.
Explain the term **disrupting ecology**?

(2 marks)

(f)   State **one** way in which computer networks has helped tackle the problem of climate change.

(1 mark)

Turn Over

SECTION C   ESSAY QUESTIONS   [20 marks]

There are **four** questions in the section. Answer **any two** questions.
Write an essay of about **180-200** words to answer each question.

Please note that the allocation of marks for the content has been included for
each question and **1** mark is allocated to the structure of the essay.
Each question is worth **10** marks.

QUESTION 1   COMPUTERS IN SOCIETY   (10 marks)

**A computer crime is an action in which the person responsible uses special
knowledge of computer technology for illegal purposes.**

With reference to the above statement, discuss

- **four** computer crimes   (4 marks)

- how encryption can help in computer security   (3 marks)

- importance of frequently changing password   (2 marks)

QUESTION 2   COMMUNICATION AND NETWORKS   (10 marks)

A network topology describes how network is configured and arranged.

With reference to the above statement, discuss

- **four** network topologies   (4 marks)

- use diagrams to support the discussion   (2 marks)

- **one** advantage of any **two** network topologies   (2 marks)

- **one** disadvantage of any network topology   (1 mark)

SECTION C   (continued)

QUESTION 3   **COMMUNICATION AND NETWORKS**   **(10 marks)**

A network strategy describes how resources and information is coordinated and shared.

With reference to the above statement, discuss the following:

- **Four** common network strategies

          (4 marks)

- Use diagrams to support your discussion

          (2 marks)

- **One** advantage of any two network strategies

          (2 marks)

- **One** disadvantage of any four network strategies

          (1 mark)

QUESTION 4   **MANAGING AND MAINTAINING DATA**   **(10 marks)**

Cloud computing adaptation is continuing apace, across a host of industry sectors, as more organisations recognise the benefits it can potentially offer.

With reference to the above statement, discuss **Public, Private and Hybrid** cloud services using the following guidelines:

- definition

          (3 marks)

- **one** advantage

          (3 marks)

- **one** disadvantage

          (3 marks)

THE END