



**GCE A level**

1647/02



S15-1647-02

**APPLIED INFORMATION &  
COMMUNICATION TECHNOLOGY**

**UNIT AICT7 – Part B**

**Practical Tasks**

A.M. TUESDAY, 23 June 2015

2 hours

1647  
020001

**INSTRUCTIONS TO CANDIDATES**

1. Tasks are based on *Dragon Day Nursery* scenario as in Part A.
2. Read the tasks carefully to make sure that you understand what is needed.
3. Carry out all tasks and make sure that you check your work carefully to ensure that the work you produce is accurate and correct.
4. You have a total of two hours to complete your work. *The Recommendation* is worth 20 marks and *The Implementation* is worth 40 marks. You are advised to divide your time accordingly.
5. You will be using *Network Design Software* for *The Recommendation*.
6. You will be using *Server Simulation Software* for *The Implementation*.

## The Recommendation

### Instructions for candidates

In the folder named *Network Design Software* there is an internet shortcut icon named *Network Design*. Double click the icon to run the Network Design Software.

You will see a plan of Dragon Day Nursery with eleven physical network components to be used to design the network.

A component is selected by clicking the component once. It will appear on the plan. It can then be dragged to the required location on the plan of Dragon Day Nursery and dropped.

You can use any of the network components as many times as required.

If you want to remove a component it can be dragged and dropped into the bin located to the right of the plan.

The components can be dropped anywhere in a location but it must be clear in which location each component is placed.

You are required to provide a screen shot and a written response for Task 1 and written responses for Task 2 and Task 3 all to be saved in a document named *The Recommendation*.

Save your work regularly.

## The system

The business currently owns one new personal computer that is unable to connect to a network.

Parents have to submit the days that their children will attend in writing before September every year and any changes will have to be submitted in writing at least one month in advance. This information will be processed in the Office by the Manager and the Owners.

A summary of a child's planned attendance will be printed every year and an invoice detailing the actual attendance and payment required will be printed every month for every child.

There are three separate sections in the nursery for children of different ages: Under Four, Under Two and Under One. Each section has a Section Leader.

Every day the Nursery Nurses in each section will enter information about every child's day at the nursery including food eaten, amount of sleep and activities.

Important information for parents such as accidents or requests for more nappies will also be recorded.

A report summarising all this information will be printed every day for every child and given to the parent when they collect the child.

Every report and attendance record for every child might be required at a future date.

The Owners would also like management information about the attendance on each day in each section of the nursery and summative reports about attendance.

Dragon Day Nursery expects to have busier periods during the year and will therefore employ additional Nursery Nurses as required.

## **The Objectives**

These *Objectives* should be read carefully and referred to throughout Part B.

*The Objectives* for the new networked attendance invoice and child report system are to enable:

1. the network to be managed from the Office
2. the Owners and the Manager to view and print invoices from the Attendance Database
3. the Owners and the Manager to update the Attendance Database
4. the Owners and the Manager to view and print reports from the Child Report Database
5. the Owners and the Manager to update the Child Report Database
6. the Accountant to view and print invoices from the Attendance Database
7. the Section Leaders to view and print reports from the Child Report Database
8. the Section Leaders to update the Child Report Database
9. the Section Leaders to view the Attendance Database
10. the Nursery Nurses to view and print reports from the Child Report Database
11. the Nursery Nurses to update the Child Report Database

**Task 1**

[10]

Open a new word processed document and save it as *The Recommendation*.

Using the *Network Design Software*, select the **most appropriate** physical network components and position these in the **most suitable location** to design a network that will allow the staff at Dragon Day Nursery to achieve *The Objectives*.

When you have completed your network design take a screen shot of the plan of Dragon Day Nursery and save it in *The Recommendation* document.

Close the *Network Design Software*.

Justify your choice of each physical network component that you used to design the network, clearly stating the reason for the location of each physical network component.

Add your answer to *The Recommendation* document.

Save your work.

**Task 2**

[5]

The Dragon Day Nursery network could be connected using a variety of media such as Unshielded Twisted Pair (UTP), Shielded Twisted pair (STP) and fibre optic cable.

Describe the physical differences between these media and give advantages and disadvantages of each type of media.

Add your answer to *The Recommendation* document.

Save your work.

**Task 3**

[5]

Explain why Dragon Day Nursery should install a wireless communication infrastructure to connect the physical network components that you selected in Task 1.

Add your answer to *The Recommendation* document.

Save your work.

## The Implementation

### Instructions for candidates

The network hardware and software have been installed and you now have to configure the network.

You will need to refer to *The Objectives* throughout The Implementation.

In the folder named *Server Simulator Software* there is an Internet shortcut icon named *Server Simulator*. Double click the icon to run the Server Simulator Software.

You will see a simulated desk top with *Server Simulation Software*, a shortcut to *Documents and Settings* folder and a shortcut to *Printers and Faxes*.

You are required to provide written responses and screen shots for the tasks all to be saved in a document named *The Implementation*.

Save your work regularly.

**Task 4**

[4]

Open a new word processed document and save it as *The Implementation*.

Objects, such as users and computers, on the network will require names so that both users and server software can recognise them.

These names should follow rules imposed by the server software and conventions imposed by the system administrator.

Explain *why naming rules and naming conventions* are important.

Add your answer to *The Implementation* document.

Save your work.

**Task 5**

[4]

One naming rule applied is that object names should have a minimum or maximum length, for example they must have at least eight characters or less than fifteen characters.

Describe **two** other rules that you would recommend when naming objects to be used in the network.

For **each** of the two rules, give an example of a suitable name.

For **each** of the two rules, give an example of a name that would be disallowed.

Add your answer to *The Implementation* document.

Save your work.

**Task 6**

[2]

Write down your naming convention for the login names for the users of the network given in Task 7 and explain your reasons for the naming convention that you have chosen.

Add your answer to *The Implementation* document.

Save your work.

**Task 7**

[1]

Using your naming convention from Task 6, write down login names for the users that are going to be created for the Dragon Day Nursery network.

- Mrs Jane Jones, owner
- Mr Jack Jones, owner
- Ms Elin McHendrie, manager
- Miss Suzan Chilby, Section Leader
- Ms Sarah Smith, Section Leader
- Miss Zina Patel, Section Leader
- Miss Jane Jones, Nursery Nurse
- Miss Alison Lloyd-Smith, Nursery Nurse
- Miss Sarah Chilby, Nursery Nurse

Add your answer to *The Implementation* document.

Save your work.

**Task 8**

[1]

Using a sensible naming convention write down names for the computers that are going to be created for the Dragon Day Nursery network.

Add your answer to *The Implementation* document.

Save your work.

**Task 9**

[4]

Decide what groups need to be created to allow *The Objectives* to be achieved.

Write down names of the groups that are going to be created.

Give a brief description of **each** of the groups that are going to be created.

Add your answer to *The Implementation* document.

Save your work.

**Task 10**

[1]

Decide on suitable names for the **two** shared folders that are going to contain the databases. Write down the names of the shared folders.

Add your answer to *The Implementation* document.

Save your work.

**Task 11**

[8]

Referring to *The Objectives*, state the permissions that **each** group should have to the shared folders.

Add your answer to *The Implementation* document.

Save your work.

**Task 12**

[1]

Using the server software, create new user accounts for all the users of the Dragon Day Nursery network.

Set the password to '*Dragon*' which must be changed the first time each user logs on.

Take a screen shot for the **first user** created of the third 'New Object – User' dialogue box as evidence that you have typed in a password and that the user must change the password at next log on. Give this screen shot a heading 'Screen Shot 12a'.

Take a screen shot of the Active Directory window with 'Users' being displayed in the right hand panel as evidence that you have created the **9** new users. Give this screen shot a heading 'Screen Shot 12b'.

Add your answer to *The Implementation* document.

Save your work.

**Task 13**

[1]

Using the server software, create the groups named in Task 9 accepting all default properties.

Take a screen shot of the Active Directory window with 'Users' being displayed in the right hand panel as evidence that you have created the groups. Give this screen shot a heading 'Screen Shot 13'.

Add your answer to *The Implementation* document.

Save your work.

**Task 14**

[4]

Using the server software, add the correct users to the correct groups to allow *The Objectives* to be achieved.

Take a screen shot of **each** 'Group' dialogue box with the 'Members' tab selected as evidence that you have added members to the group. Give these screen shots the heading 'Screen Shots 14'.

Add your answer to *The Implementation* document.

Save your work.

**Task 15**

[8]

Create the shared folders from Task 10 to be used to store the databases and set the necessary permissions for **each** group that you have created.

Take a screen shot as evidence that you have set the permissions for **each** group for **each** shared folder. Give these screen shots a heading 'Screen Shots 15'.

Add your answer to *The Implementation* document.

Save your work.

**Task 16**

[1]

Using the server software, create **four** new computers for the network.

Take a screen shot of the Active Directory window with 'Computers' being displayed in the right hand panel as evidence that you have created the **four** computers. Give this screen shot a heading 'Screen Shot 16'.

Add your answer to *The Implementation* document.

Save your work.

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**END OF PAPER**