

Computer Science - Week 1 [/56]

Definitions/ key points [2 marks each – 8 marks]

Variable

.....

.....

Assignment Statement:

.....

.....

.....

Sequence Statement:

.....

.....

.....

Subroutine:

.....

.....

Skills Qs [12 marks]

Complete the T1 Week 1 mini-test in the Year 1 Homework section on the VLE.

Write your score here:

Knowledge & Explain Qs [8 marks]:

1. Explain what is meant by the term 'order of precedence': [2]

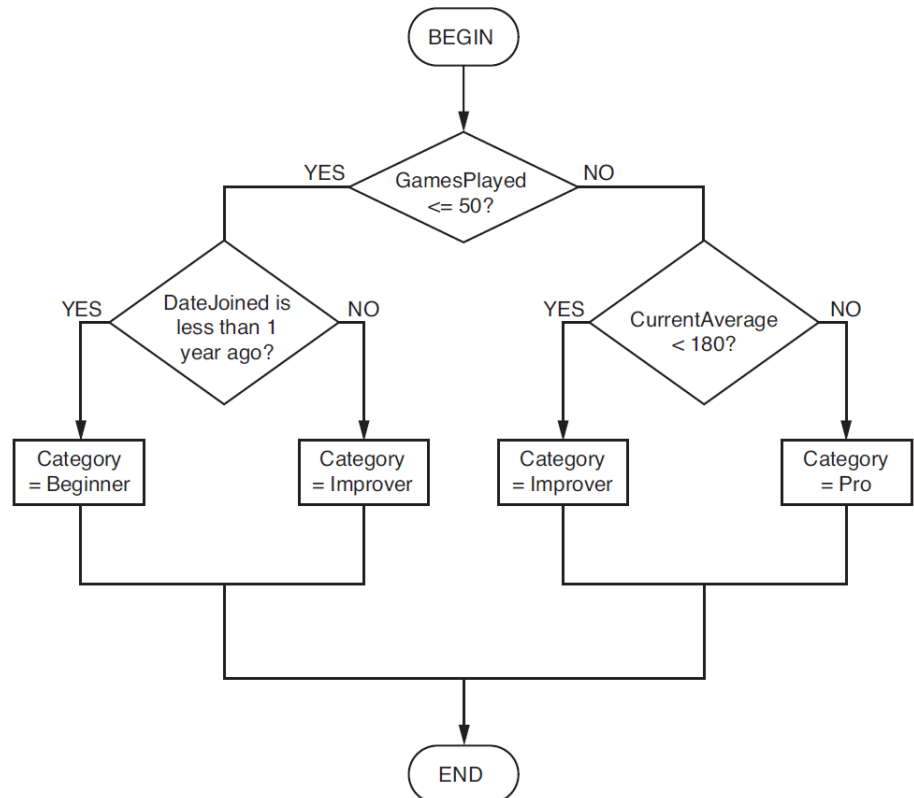
.....

.....

.....

2. In a squash club, a computer places members into 3 different categories – Beginner, Improver and Pro, according to the data in their club records.

The method used to decide which category a member belongs to is given in the flowchart on the right.



- a) The records of 2 members on 1 January 2010, are shown below.

For each member, state in which category they will be placed, explaining how you obtain your answer from the flowchart: **[6 marks – 3 each]**

- i)
- MemberID:** A6718
Name: Bashir Ali
DateJoined: 03/04/2008
CurrentAverage: 200
GamesPlayed = 40
-
-
-
-
- ii)
- MemberID:** S9140
Name: Susan Striker
DateJoined: 01/03/2000
CurrentAverage: 180
GamesPlayed = 320
-
-
-
-

Analysis & Synthesis Qs [20 marks]

3. Why is it important to initialise variables? [2]

.....

.....

.....

4. What is the benefit to the programmer of using libraries of code when writing a program (like #stdio.h)? [4]

.....

.....

.....

.....

.....

.....

5. Draw a structure diagram for a program that asks the user which times table they would like to be tested on, and then displays a series of questions, getting the users answer each time and telling them whether they were right or wrong. If they were wrong, the correct answer is displayed. [6]

“More than 1.5 hours of watching TV or playing computer games per day has a negative effect on learning”

Discuss whether or not you agree with this statement showing you have considered both points of view. [8]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Programming Practice [8 marks]:

The wage earned by a worker in a toy factory is £7.80 per hour. They also get a bonus once they have made 50 toys, of £0.50 for every toy over 50 they have made.

Write a program in C that allows a worker to enter their hours worked and number of toys made, calculates the worker’s wages and outputs the total amount.

UPLOAD YOUR PROGRAM TO YOUR FOLDER ON THE P DRIVE — make sure you email yourself a backup

P:\A level Computing\PUT STUFF HERE\AS Homework Uploads\ whatever your group is

Problem Solving:

A battalion of 25 soldiers must cross a wide and deep river with no bridge in sight. They notice two children playing in a rowboat by the shore. The boat is so tiny, that it can only hold either two children or one soldier.

- i) How can the soldiers get across the river and leave the children with their boat?

- ii) How many times does the boat pass from shore to shore in your solution?

Lesson preparation:

1. Memorise the base structure of an IF....ELSE statement (VLE – C Procedural section)
2. Access the flowchart resources on the VLE for this week and make sure you understand how you add up two or more binary numbers. (Problem Solving section)