



Comhairle na nDámhachtainí Breisoideachais agus Oiliúna  
**Further Education and Training Awards Council**

# **Computer Programming C20013**

**April 2012**

## **Duration: Two Hours**

### **INSTRUCTIONS TO CANDIDATES:**

*Answer any **three** questions*

*All questions carry equal marks*

**The use of calculators is not permitted**

**Answer the questions using the spaces provided in this booklet**

**Return this examination paper when finished**

**This written exam counts as 40% of the total module**

NAME (PRINT): \_\_\_\_\_

PPS NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

**Question 1. Total 40 marks.**

---

(a) This program contains 6 errors that will stop it from compiling. List the errors.

**6 \* 5 marks**

```
#!/usr/bin/perl
use strict;
#
my (@words, $oneword, $count, $strap)
@words=split(" ", "Fee Fi Foh Fum");
$count = 0;
foreach $oneword (@wordslst) {
    $count++;
    Print "$count $oneword \n";
}
}
```

1	
2	
3	
4	
5	
6	

(b) There is one error in this code snippet. Mark the error and identify it as either a *syntax error* or a *semantic error*.

**5 marks**

```
print "Enter a number: ";
$data = <STDIN>;
if ($data = 5) {
    print "Square is 25"; }
else {
    print "Not matched"; }
```

(c) What is a reserved word?

**5 marks**

----------------------

**Question 2. Total 40 marks.**

(a) Write a **while** loop that writes out the even numbers from 20 to 100: **10 marks**



(b) Write the general form of the **if..else** statement: **10 marks**



(c) The following perl code will compile and run but for any of at least 4 reasons will not generate the desired output. Why?

**4 \* 5 marks**

```
#!/usr/bin/perl
# Convert sample sentence to all lowercase,
#
my ($sentence, $result, @letters, $letter);
$sentence = "THIS is Some sAMple TeXT.";
$result = "";
@letters = split ("", $sentance);
foreach $letter (@sentence) {
    if (($letter gt "A") && ($letter le "Z")) {
        $letter = chr(ord($letter)+65);
    }
    $result = $result.$letter;
}
print "$result\n";
```

1
2
3
4

### Question 3. Total 40 marks.

(a) What screen output is generated by this short program:

**10 marks**

```
#!/usr/bin/perl
printf "%c%c%c%c%c\n%c%c%c%c%c\n%c%c%c%c%c\n%c%c%c%c%c\n",
84,84,84,84,76,32,32,82,76,32,32,82,66,66,66,66;
```



(b) Indicate the values in each of the variables **\$vr**, **\$vs** and **\$vt** after this program finishes:

**3 \* 10 marks**

```
#!/usr/bin/perl
use strict;
my @nums=(4, 6, 8);
my ($vs, $vr, $vt);
my $index = 0;
$vr = $nums[0] * 1;
$vs = $nums[1] * 2;
$vt = $nums[2] * 3;
$vr = $index * 10;
$vs++;
while ($index <= 6)
{
    if ($index >= $nums[1]) {
        $vt=20;
    }
    $nums[2] = $index * 2;
    $index++;
}
$vs = $nums[0] * $index;
print "$vr, $vs, $vt\n";
```

Variable	Value
<b>\$vr</b>	
<b>\$vs</b>	
<b>\$vt</b>	

**Question 4. Total 40 marks.**

To convert degrees <i>Celcius</i> to degrees <i>Farenheit</i> :  <i>multiply by 9, divide by 5, add 32</i>	$F=(C*9)/5+32$
To convert degrees <i>Farenheit</i> to degrees <i>Celcius</i> :  <i>subtract 32, multiply by 5, divide by 9</i>	$C=(F-32)*5/9$

Write a short perl program to:

- 1) Present a simple menu to show conversion options.
- 2) Take all steps to perform the conversion requested.

Include some error checking. Indent and comment as appropriate.

**40 marks**

Senior  
College  
Clonmel

**Figure 1. The ASCII table.**

			032 SP	033 !	034 "	035 #
036 \$	37.00%		038 &	039 '	040 (	041 )
042 *	043 +		044 ,	045 -	046 .	047 /
048 0	049 1		050 2	051 3	052 4	053 5
054 6	055 7		056 8	057 9	058 :	059 ;
060 <	061 =		062 >	063 ?	064 @	065 A
066 B	067 C		068 D	069 E	070 F	071 G
072 H	073 I		074 J	075 K	076 L	077 M
078 N	079 O		080 P	081 Q	082 R	083 S
084 T	085 U		086 V	087 W	088 X	089 Y
090 Z	091 [		092 \	093 ]	094 ^	095 _
096 `	097 a		098 b	099 c	100 d	101 e
102 f	103 g		104 h	105 i	106 j	107 k
108 l	109 m		110 n	111 o	112 p	113 q
114 r	115 s		116 t	117 u	118 v	119 w
120 x	121 y		122 z	123 {	124	125 }
126 ~	127 □					
Printable alphanumeric and punctuation characters used in normal document text						