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 INTERNATIONAL COLLEGE PENANG (507232-U)
 LAUREATE INTERNATIONAL UNIVERSITIES

FINAL Examination Paper
(COVER PAGE)

Session : APRIL 2013

Programme : DIPLOMA IN INFORMATION TECHNOLOGY

Course : CSC2118: PRINCIPLES IN INTERNET PROGRAMMING

Date of Examination : 1 August 2013

Time : 11a.m. – 1p.m. Reading Time : Nil

Duration : 2 Hours

Special Instructions :

This paper consists of **SIX (6)** questions. Answer any **FOUR (4)** questions in the answer booklet provided. All questions carry equal marks.

Materials permitted

Nil

Materials provided

Examiner(s) : Chern Huey Rong

Moderator : Lim Chai Kim

This paper consists of 8 printed pages, including the cover page.

INTI INTERNATIONAL COLLEGE
PENANG

DIPLOMA IN INFORMATION TECHNOLOGY

CSC2118: PRINCIPLES IN INTERNET PROGRAMMING
FINAL EXAMINATION: APRIL 2013 SESSION

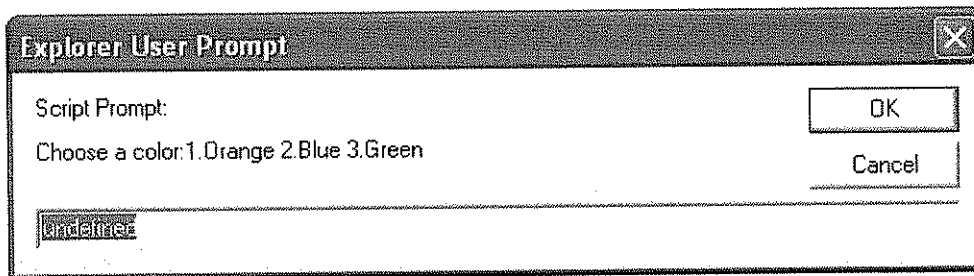
Instructions: This paper consists of **SIX (6)** questions. Answer any **FOUR (4)** questions in the answer booklet provided. All questions carry equal marks.

Question 1

(a) Write Javascript code using **Switch** statement to request input from user as shown in dialog box below.

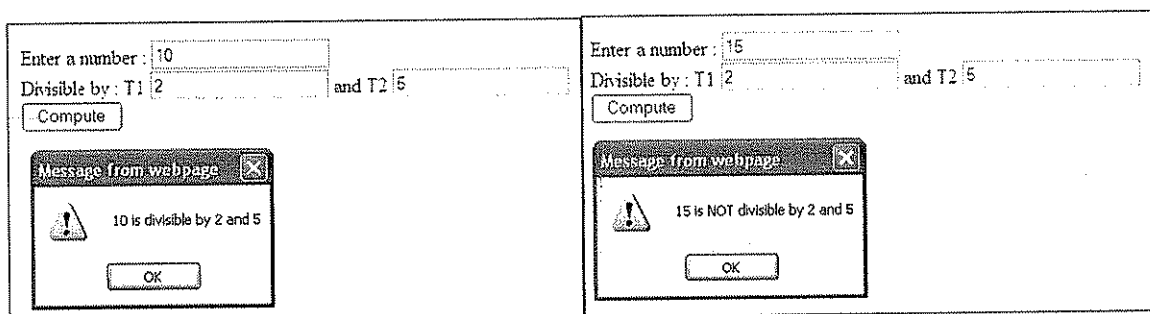
Determine and display the output in dialog box as below.

- (i) User chooses 1, message “Just like the sun!” is shown.
- (ii) User chooses 2, message “Just like the sea!” is shown.
- (iii) User chooses 3, message “Just like the grass!” is shown.
- (iv) User chooses any other number from above, message “Please try again!” is shown.



(6 marks)

(b) Write the Javascript code that can input a number and then print if it is divisible by T1 and T2, which are also user input.

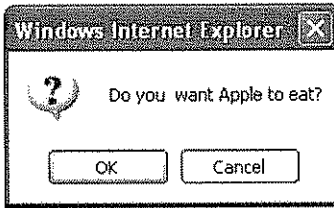


(6 marks)

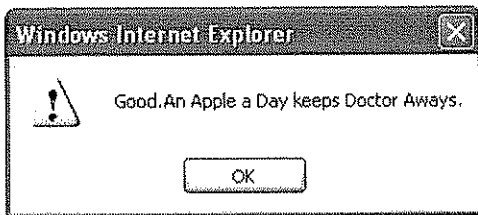
(c) Write a Javascript program that will input 10 integers and store them into an array. It will then prompt user to enter a number to search. If it is found, it will print “FOUND”, else it will print “NOT FOUND”.

(7 marks)

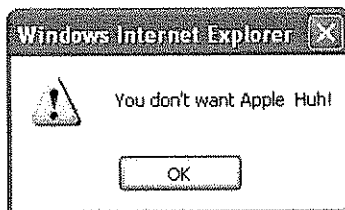
- (d) Write the Javascript code for a program below that displays the sequence of output shown. Your program should include a function.



- (i) If click OK,



- (ii) If click cancel,

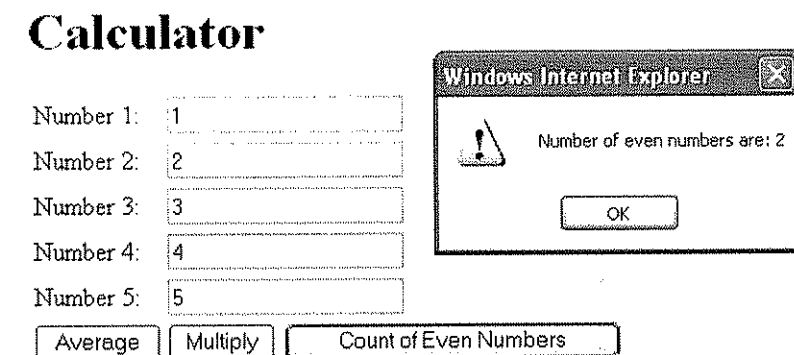
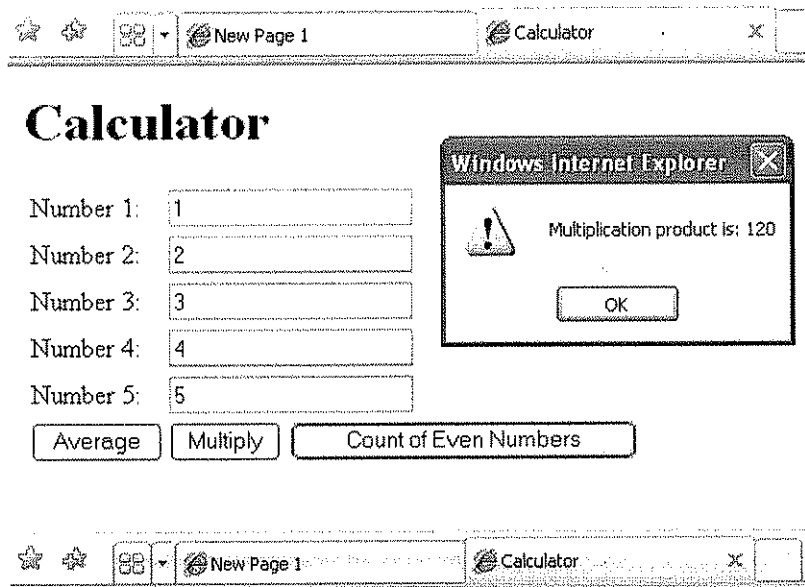
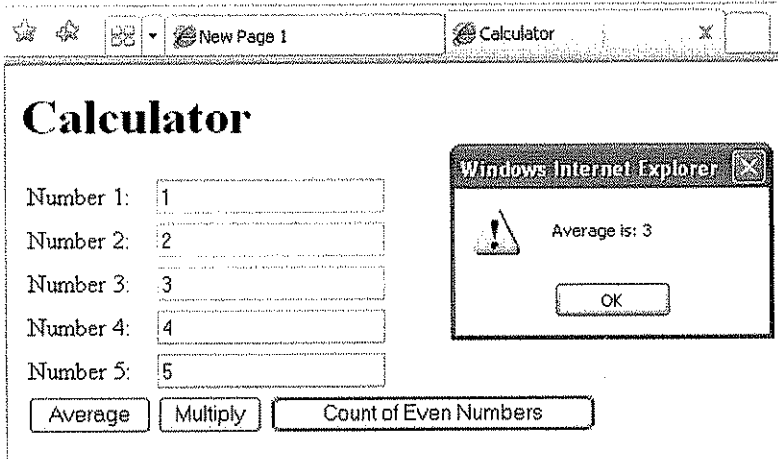


(6 marks)

Question 2

- (a) Write a program that asks the user to type an integer and writes "YOU WIN" if the value is between 56 and 78 (both included). In the other case it writes "YOU LOSE".
(5 marks)
- (b) Write the Javascript to swap between two images when user move mouse over or out from the image
(4 marks)
- (c) List and describe any **TWO (2)** types of Javascript window dialog boxes. Give **ONE (1)** example code for each.
(6 marks)

- (d) Write the code for the web page below using Javascript. Use array to store the numbers.
- (i) Clicking "Average" button gives the average of 5 numbers.
 - (ii) Clicking "Multiply" button gives the multiplication of 5 numbers.
 - (iii) Clicking "Count of Even Numbers" counts the number of Even number values within the 5 values entered by user.



(10 marks)

Question 3

- (a) Write a program using javascript that returns the value of

$\text{base}^{\text{exponent}}$

For example, $3^4 = 3*3*3*3$. Assume that *exponent* is a positive, non zero integer and that *base* is an integer. Design your form as shown below.

The form is enclosed in a rectangular border and contains the following elements from top to bottom:

- A label "Base:" followed by a text input field containing the number "2".
- A label "Exponent:" followed by a text input field containing the number "5".
- A button labeled "Calculate!".
- A label "Result:" followed by a text input field containing the number "32".

(9 marks)

- (b) Write a PHP function that can create a random string of x characters, using a defined string of possible characters.

(6 marks)

- (c) Write a javascript function to find all passwords (fixed length of 4) that match a given check-sum. Assume each character represent a value:
 a = 0, b = 1, c = 2, ..., z = 25, A = 26, B = 27, C = 28, ..., Z = 51, 0 = 52, 1 = 53, 2 = 54, ..., 9 = 61

Check-sum value is the sum of the value of each password character. Ex: Password = "B123", check-sum = $27+53+54+55 = 189$

(10 marks)

Question 4

- (a) Trace and write all the outputs of code below:

```
<html>
  <script language="javascript">
    var i, num;
    num = 2;
    i = 1;

    while (i<=10)
    {
      document.write(num + ", ");
      num = num + i;
      i = i + 1;
    }
  </script>
</head></head>
</body></body>
</html>
```

(10 marks)

- (b) List and differentiate **TWO (2)** ways of creating separate pages for particular elements such as footer or header and then incorporating them into the main PHP pages. Give **ONE (1)** example code for each.
- (6 marks)
- (c) Vowel letter is defined as A, E, I, O, U. Write program using Javascript to get a string from user then determine and print how many vowels in the string. Store the vowels list in an array.
- (9 marks)

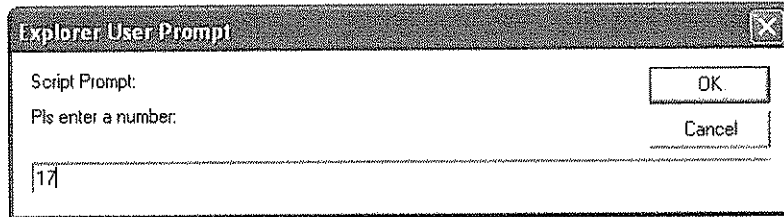
Question 6

- (a) Write the code using Javascript to get a number from the user. Use this as first number to generate the Hailstone sequence. Display the total count of numbers in this Hailstone sequence.

Hailstone sequence is a sequence of numbers that will eventually end in one by following a simple rule;

- i. if the number is even halve it by two,
- ii. if it's odd times it by three and add one

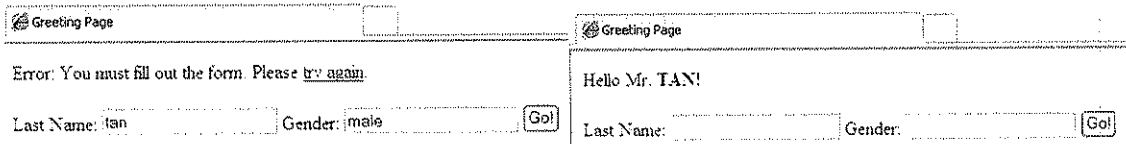
Example: if user inputs 5, the sequence would be 5 16 8 4 2 1.



17, 52, 26, 13, 40, 20, 10, 5, 16, 8, 4, 2, 1.
There are 13 numbers in the sequence.

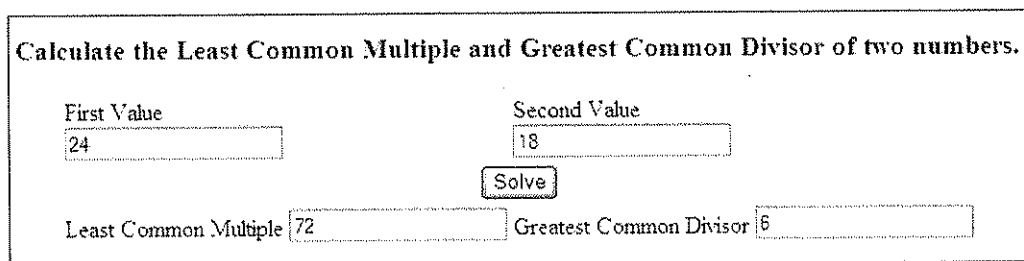
(8 marks)

- (b) Write PHP script for below using **switch** case and display the last name in uppercase. If the gender is male, greet the user with Mr. If the gender is female, greet the user with Miss. Prompt error message 'Error: You must fill out the form.' if the form fields are empty.



(8 marks)

- (c) Create a web page using HTML and Javascript to calculate the GCD(Greatest Common Divisor) and LCM (Least Common Multiple) of 2 numbers as shown below:



(9 marks)

--THE END--