

SUBMIT YOUR WORK IN A SINGLE WORD DOCUMENT OR PLAIN-TEXT DOCUMENT.

ATTEMPT ALL QUESTIONS.

Programming Question 1 of 3
[10 marks]

Examine the webpage below, which upon loading generates a secret number between 1 and 100, and asks the user to guess that number. It then tells the user if they guessed right or wrong.

Now modify the playGame() function so that the user is given as many guesses as they need, and after each guess they are told whether they guessed too high or too low. The game continues until the user guesses the correct number, at which point they are told how many guesses they took, and the game ends.

```
<html>
  <head>
    <script>
      function playGame() {
        var secretNumber = Math.floor(Math.random()*100)+1;
        var guess = parseInt(prompt("What number am I thinking of (1-100)?"));
        if (guess==secretNumber)
          alert("That's right!");
        else
          alert("That's wrong!");
      }
    </script>
  </head>
  <body onload="playGame();">
  </body>
</html>
```

Programming Question 2 of 3
[10 marks]

Examine the webpage below, which displays four <div> elements, and which (in a <script> block) declares an array of strings – each string being a valid HTML color value.

Write the necessary code so that, when each <div> is clicked, the background color of that div is changed to a color randomly selected from the array. Hint: Math.random() produces a random number from 0.000 to 0.999.

```
<html>
  <head>
    <script>
      var colours = ['red', 'blue', 'yellow', 'turquoise', 'magenta',
'orange', 'brown'];
    </script>
  </head>
  <body>
    <div style='width:50px; height:50px; background-color:black;'></div>
    <div style='width:50px; height:50px; background-color:black;'></div>
    <div style='width:50px; height:50px; background-color:black;'></div>
    <div style='width:50px; height:50px; background-color:black;'></div>
  </body>
</html>
```

Programming Question 3 of 3

[15 marks]

Using HTML and CSS as appropriate, write code which produces a template webpage similar to the one depicted below. (You do not need to write out the full content text in the Main Content Area or Other Content cells).

- The page is structured using a `<table>` which is 600 pixels wide and 400 pixels high. Cells in the 1st and 3rd rows have been merged by using *colspan*.
- The 1st and 3rd rows of the table are 80 pixels high, while the 2nd row is 240 pixels high
- In the 2nd row of the table, the 1st and 3rd columns are 75 pixels wide, while the 2nd column is 450 pixels wide
- Text sizes are defined using CSS styling
- The table cell backgrounds are coloured using CSS styling
- The content of the cells in the 2nd row has been vertically aligned to be at the top of the cell (rather than the middle)
- The content of the 1st cell in the 2nd row (the 'Navigation Menu'), is horizontally aligned to the left, while the content of all other cells is horizontally aligned to the centre
- The 'Navigation Menu' contains four hyperlinks

Header Area		
Navigation Menu	Main Content Area	Other Content
• Link 1 • Link 2 • Link 3 • Link 4	This is some sample text to demonstrate the sample page using the table created with HTML. This text should fill up the main content area a bit and help illustrate the shape that we get from using the table	This is some sample text to demonstrate the sample page using the table created with HTML. This text should fill up the main content area a bit and help illustrate the shape that we get from using the table
Footer Area		