## Question 8: XHTML and CSS [10 marks]

Suppose you are tasked to apply CSS in designing web pages that display student records. In your script booklet, write CSS (Cascading Style Sheets) for the following XHTML file.

```
<!DOCTYPE html
    PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en-au">
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
    <title>Student Record of Ivo Sondergaard</title>
    <link type="text/css" href="styles.css" rel="stylesheet" />
</head>
<body>
    <h1 id="pageTitle">Informatics University Student Record</h1>

    <div id="personal">
        <h2>Personal Information</h2>
        <p>Student Number: <span id="stuId">007279</span></p>
        <p>Student Name: <span id="stuName">Ivo Sondergaard</span></p>
        <p>Gender: <span id="stuGender">Male</span></p>
    </div>

    <div id="contact">
        <h2>Contact Information</h2>
        <p>Address:
            <span id="street">111 Barry St</span>,
            <span id="suburb">Carlton</span>,
            <span id="state">VIC</span>
            <span id="postcode">3010</span>,
            <span id="country">Australia</span></p>
        <p>Email:
            <span class="email">ivos@ugrad.unimelb.edu.au</span>,
            <span class="email">ivo.sondergaard@googlewave.com</span></p>
        <p>Phone: <span class="phone">61 3 8344 1582</span></p>
        <p>Mobile: <span class="mobile">0415 007 279</span></p>
    </div>

    <div id="academic">
        <h2>Academic Information</h2>
        <p>Course: <span class="course">Bachelor of Science (R01-AA)</span></p>
        <table id="subject_table">
            <thead>
                <tr>
                    <td colspan="4">List of Subjects</td>
                </tr>
            </thead>
            <tbody>
                <tr class="semester">
                    <td colspan="4">Semester 2, 2009</td>
                </tr>
                <tr class="subject">
                    <td>600-151</td>
                    <td>Informatics-1</td>
                    <td>H1</td>
                    <td>100</td>
                </tr>
```
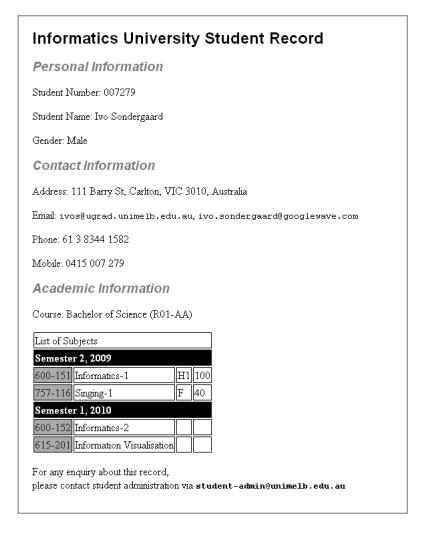
```
                <tr class="subject">
                    <td>757-116</td>
                    <td>Singing-1</td>
                    <td>F</td>
                    <td>40</td>
                </tr>
                <tr class="semester">
                    <td colspan="4">Semester 1, 2010</td>
                </tr>
                <tr class="subject">
                    <td>600-152</td>
                    <td>Informatics-2</td>
                    <td></td>
                    <td></td>
                </tr>
                <tr class="subject">
                    <td>615-201</td>
                    <td>Information Visualisation</td>
                    <td></td>
                    <td></td>
                </tr>
            </tbody>
        </table>
    </div>
    <div id="footer">
        <p>For any enquiry about this record, <br />
        please contact student administration via
        <span class="email">student-admin@unimelb.edu.au</span></p>
    </div>
</body>
</html>
```

Your CSS should stylise this XHTML page such that:

- The first level heading with *#pageTitle* id has **sans-serif** font, **150%** in size, and **bold** in weight.

- The second level headings are formatted in **green**-colored **italic sans-serif** font and **120%** in size.

- The student emails are displayed in **monospace** font.

- The email of student administration (in the footer) is in **bold monospace** font.

- The border of all the cells in the table is styled as **black**-colored **1-pixel solid** line.

- The semester headings (e.g. **Semester 1, 2010**) in the same table should be formatted as **white**-colored **bold** text on **black** background.

- The subject codes in that table should be colored **red** and placed on **gray** background.

The result of your CSS should be similar to the following picture:

**Informatics University Student Record**

*Personal Information*

Student Number: 007279

Student Name: Ivo Sondergaard

Gender: Male

*Contact Information*

Address: 111 Barry St, Carlton, VIC 3010, Australia

Email: ivos@ugrad.unimelb.edu.au, ivo.sondergaard@googlewave.com

Phone: 61 3 8344 1582

Mobile: 0415 007 279

*Academic Information*

Course: Bachelor of Science (R01-AA)

| List of Subjects | | | |
|---|---|---|---|
| **Semester 2, 2009** | | | |
| 600-151 | Informatics-1 | H1 | 100 |
| 757-116 | Singing-1 | F | 40 |
| **Semester 1, 2010** | | | |
| 600-152 | Informatics-2 | | |
| 615-201 | Information Visualisation | | |

For any enquiry about this record,
please contact student administration via **student-admin@unimelb.edu.au**

*Note:* Obviously, there are various ways in using CSS to achieve the same presentation outcome. There is no further restriction or constraint as to what combination of selectors you should use. As long as your CSS can produce the required styles in the context of the given XHTML code, your answer would be considered correct.

## *CSS References:*

**CSS Rules Format:**

```
selector { property: value; ... }
```

**CSS Selectors**:

element selector: `element_name`
ID selector: `#element_id`
class selector: `.element_class`

**CSS Advanced Selectors**:

descendant selector (space in between selectors): `selector1 selector2 {property: value}`
child selector (>): `selector1 > selector2 {property: value}`
adjacent sibling (+): `selector1 + selector2 {property: value}`
first child pseudo class: `selector:first-child {property: value}`

**Relevant CSS Properties**:

```
font-family, font-size, font-weight, font-style, color, background-color
border, border-width, border-style, border-color
```

**Question 10  CSS**

Suppose you are given an XHTML page called `play.html`:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xml:lang="en" xmlns="http://www.w3.org/1999/xhtml">

<head>
  <title>CSS Play</title>
  <link type="text/css" rel="stylesheet" href="play.css" />
  <style type="text/css">
    .firstLetter{
      font-style:italic;
    }
  </style>
</head>

<body>

  <div id="pageHeader">
    <h1 class="pageTitle" style="color:purple">
      The Tale of Peter Rabbit
    </h1>
    <h2>by <span class="author">Beatrix Potter</span></h2>
  </div>

  <div id="pageContent">
    <p class="paraStyle"><span class="firstLetter">O</span>nce
      upon a time there were four little rabbits, and their names
      were Flopsy, Mopsy, Cotton-tail and Peter.
    </p>
    <p class="paraStyle">They lived with their mother in a
      sand-bank, underneath the root of
      <span style="font-style:italic">a very big fir
      tree.</span>
    </p>
  </div>

</body>
</html>
```

and an accompanying CSS file called `play.css`.

```
h1{
    color: green;
}

#pageContent{
    color: red;
}

.paraStyle{
    font-size: 14pt;
}

/* continued in the next page */
```

```
p.paraStyle:first-child{
    color: blue;
}
span.firstLetter{
    font-size: 24pt;
    font-weight: bold;
}

#pageHeader span{
    color: orange;
}
```

Given those two files, answer the following questions:

(a) What is the colour of the text "The Tale of Peter Rabbit"?

(b) What is the colour of the text "Beatrix Potter"?

(c) What is the colour of the first paragraph inside "pageContent" <div> ?

(d) What is the colour of the second paragraph inside "pageContent" <div> ?

(e) Which parts of text will be displayed in *italics*?

(5 marks)

- - - - - **END of EXAM PAPER** - - - - -