Week2

Q1 How many bits are required to store a text document consisting of 8000 alphanumeric characters using 8-bit ASCII?

    A. 32000 bits
    B. 64000 bits
    C. 16000 bits
    D. 42000 bits
       8bit ASCII>>> each character is represented by 8 bits

       ASCII - 7 bit old
       ASCII - 8 bit new
       UCS (8 bits)
       UCS-2 (2 bytes i.e 16 bits) 1 byte= 8bits
       UCS-4 (4 bytes)
       UTF-8 8 bits

       = 8000 x 8bit for each character
       = 64000 bits

       Using UCS
       = 8000x 16bit

Q2. Let L = {`'a'`, `'b'`, `'c'`, `'d'`, `'A'`, `'B'`, `'C'`, `'D'`, `'0'`, `'1'`, `' '`} be a complete character set (i.e., only these characters can be used to represent text in the document). If a document that uses fixed encoding for all characters is created using the character set L and has a disk size of 2 Kilobytes, the number of characters in the documents would be_____. [Take 1 Byte = 8 bits, 1 KB = 1000 Bytes, 1 MB = 1000 Kilobytes and so on.]

[MCQ: 3 points]

    A. 2000
    B. 4000
    C. 8000
    D. 16000

Answer: B

3 bits 2^3 = 8 distinct combinations >> 8 different characters
4 bits 2^4 = 16 distinct combinations (a= 1000 A= 1100)
No of characters = (size of file/ bits required to store each character)
               = (2x 1000x 8 bits/ 4bits)
               = 4000

2bit : 00,01,10,11 2^2=4 a,b,c,d aaabbbccdd

1character will require 4bit, n characters = nx 4bits = size of file

Q3. Which of the following is a correct way to create a hyperlink in HTML?

A. `<a href = "www.onlinedegree.iitm.ac.in"> IITM Online Degree Website </a>`
B. `<a url = "www.onlinedegree.iitm.ac.in" IITM Online Degree Website /a>`
C. `<a link = "www.onlinedegree.iitm.ac.in"> IITM Online Degree Website </a>`
D. `<a> www.onlinedegree.iitm.ac.in <IITM Online Degree Website /a>`

Q4. Consider the following code segment.

```
<style>
    *{
        margin: 10px;
        border-radius: 10px;
    }
</style>
```

What styling will be done by the above CSS in an HTML document?

A. A margin and border-radius of 10 pixels will be applied to all block tags.
B. A margin and border-radius of 10 pixels will be applied to all inline tags.
C. A margin and border-radius of 10 pixels will be applied to all tags having class = '*'.
D. A margin and border-radius of 10 pixels will be applied to all tags present in the body.

Q5. Consider the following code segment.

HTML code

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
    <link rel="stylesheet" href="style.css">
    <style>
        div{
            color:blue
        }
    </style>

</head>
<body>
    <div style="color: red;">IITM 1</div>
    <!-- <div>IITM 1</div>  -->
</body>
</html>
```

CSS code

```
 div{color:yellow}
```

What will be the color of text IITM 1?

! Important>>Inline>> Internal>>External

Ans: It will take red color

6) Consider the following code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
    <style>
        #iitm{color: red}
        .iitm{color:green}
        div{color:yellow}
    </style>
</head>
</head>
<body>
    <div class = "iitm" id="iitm" >IITM Online</div>
</body>
</html>
```

What will be the color of text "IITM Online" if the above styling is used?

○ Black

○ Red

○ Green

○ Yellow

Ans: red color
Element- department, classes-class, student-id
Based on selector:
! important>>>id>>class>> element