



**SCHOOL OF SCIENCE, ENGINEERING AND HEALTH**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**FINAL EXAMINATION JANUARY 2019 SEMESTER**  
**ACS 355: INTERNET TECHNOLOGIES AND DESIGN**

**DATE: MAY 2019**

**TIME: 2.0 HOURS**

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Answer **ALL** questions in Section A and any **TWO** from Section B

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**SECTION A**

- a. Define the following **(3 Marks)**
- i. *Cookies*
  - ii. *Sessions*
  - iii. *REST*
- b. Explain the *ad-hoc process* of website design describe any **FOUR** pitfall of such process. **(6 Marks)**
- c. With use of examples describe how the following influence web design. **(6 Marks)**
- i. *Content*
  - ii. *Users Memory*
  - iii. *Usability.*
- d. The java.net package provides support for the two common network protocols TCP and UDP. Briefly explain the difference between TCP and UDP sockets. **(4 Marks)**
- e. Differentiate between *absolute* and *relative* URL. **(3 Marks)**
- f. State any **FOUR** elements of effective Web Design **(2 Marks)**
- g. Browsers are applications installed on the client machines to perform different functions. Highlight any **THREE** browser function on a client machine. **(3 Marks)**
- h. Explain each part of the following URL *http://www.w3schools.com/php/default.asp* **(3 Marks)**

**SECTION B: ANSWER ANY TWO QUESTIONS      20 MARKS EACH****Question 2**

a)

```
<html>
<!-- COMP519 js05.html 08.10.10 -->
<head>
  <title>Interactive page</title>
</head>
<body>
var userName = prompt("What is your name?", "")
var userAge = prompt("Your age?", "")
var userAge = parseFloat(userAge)
  document.write("Hello " + userName + ".")
  if (userAge < 18) {
    System.write(" Do your parents know " +
      "you are online?")
  }
  else {
    System.write(" Welcome friend!")
  }
  <p>The rest of the page...</p>
</body>
</html>
```

- i. Determine the output of the above program assuming no errors are identified. **(2 Marks)**
  - ii. The program could not give output on the browser identify what is wrong with the source code. **(10 Marks)**
- b. Explain any **FOUR** advantages and **FOUR** disadvantages of using website in a company. **(8 Marks)**

**Question 3**

- 1) Discuss the following layout guidelines of designing a website. **(6 Marks)**
  - a) *Visual Hierarchy*
  - b) *Balance*
  - c) *Repetition/Consistency*
  - d) *Proximity*
- 2) How do *applets* differ from *java applications*? By use of Describe the applet life cycle. **(8 Marks)**
- 3) Designing a website using HTML one interacts with different tags and attributes. Explain any **SIX** tags with their attributes used while designing a website. **(6 Marks)**

**Question 4**

|                                     |  |
|-------------------------------------|--|
| Full Name:                          | <input type="text" value="Vincent Maverick Durano"/>               |
| Username:                           | <input type="text" value="Vinz"/>                                  |
| Password:                           | <input type="password" value="••••••••"/>                          |
| Re Password:                        | <input type="password" value="••••••••"/>                          |
| Address:                            | <input type="text" value="Cebu, Philippines"/>                     |
| Age:                                | <input type="text" value="22"/>                                    |
| Gender:                             | <input type="text" value="Male"/> <input type="button" value="v"/> |
| <input type="button" value="Save"/> |  |

- a) The html registration above was used to capture records on a browser. Identify the html elements that will display. **(11 Marks)**
  - a. *Username*
  - b. *Password*
  - c. *Age*
  - d. *Male*
  - e. *Save*
- b) In socket communication both the client and server have a Socket object these methods below can be invoked by both the client and server. Briefly describe the socket methods listed below. **(6 Marks)**
  - a. *public InetAddress getInetAddress()*

b. *public int getLocalPort()*

c. *String getHostName()*

c) State the functions of the following port numbers. (3 Marks )

a. 25

b. 21

c. 80

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