Mid1 Questions:

Question 1. What is a web server? Give 2 examples and explain their advantages and disadvantages? (10 points)

- Web servers are the computers that actually run websites.
- Examples:
  a) Internet Information Server/Services (IIS).
  b) Apache.

- (IIS) Advantages:
  - It is has a GUI interface, which makes the installation a bit easier.
  - Works well with other Microsoft applications.
  - Performance Monitor feature is very useful.
  - Good Tech Support.
- (IIS) Disadvantages:
  - It only works with the Windows OS.
  - It is not a terribly flexible web server, due to Microsoft constraints.
  - Source code is proprietary.
- Apache advantages:
  - Industry standard for most web servers.
  - Open source.
  - Allows remote administration.
  - Multi-platform.
  - The software is free.
- Apache disadvantages:
  - Console mode installation.
  - No real tech support, except for message boards and third party vendors.
  - Apache is not regularly updated.
  - Requires more technical knowledge to install and configure.

Question 2. What is a Virtual Host? And what are the advantages of using it ? Explain its methods in details? (10 points)

- Virtual hosting is a method that servers such as web servers use to host more than one domain name on the same computer, sometimes on the same IP address.
- Its main advantage is: cost-effectiveness because you won't have to pay for a dedicated server to host just your website.
- Virtual web hosting is a good solution for small- to medium-sized websites that aren't constantly being visited or that have reasonable bandwidth needs.
- Two methods:
    - Name based
    - IP based
- Virtual host name-base:
    - The browser sends the URL to the server.
    - The server can use this information to determine which web site, as well as page, to show the user.
    - For example: www.site1.com and www.site2.com, both resolve to the same IP address.
    - For www.site1.com, the server would send the HTML file from the directory /var/www/user/abc/site/, while requests for www.site2.com would make the server serve pages from /var/www/user/xyz/site/.
    - Fails when site is accessed through IP.
    - Can not work in secure environment.

- Virtual host IP-based:
  - In IP-based virtual hosting each site points to a unique IP address.
  - The client is not involved in this process.
  - It can serve only a certain maximum number of requests per second depending on:
  - the HTTP request type,
  - whether the content is static or dynamic,
  - whether the content is cached,
  - hardware and software limitations of the OS of the computer on which the web server runs.
  - When a web server is near to or over its limits, it becomes unresponsive.

Question 3. Write an HTML code to create a webpage that has the following features (30 points):

1- Title of the webpage "**CSC457 Internet Technology**"
2- Background color is yellow, center alignment, and font size 24pt using ***class attribute and CSS external file***.
3- `Write "This is a red centered paragraph"` in the webpage.

Answer:

CSS file : test1.css

```
body{ background-color: yellow}

p.red {font-size: 24pt; color: red}
p.center {text-align: center;}
```

Html File :

```
<html>

<head>
<title> الانترنتCSC457 Internet Technology </title>
<link rel="stylesheet" type="text/css" href="test1.css" />

</head>
<body>

<p class="red center"> This is a red centered paragraph. </p>

</body>
</html>
```

Mid2 Questions:

Question 4. Write HTML code using JavaScript popup an alert has " HELLO WORD" Massage when clicking on a button:

```
<html>
<head>
<script language="javascript">
<!--
function popup() {
alert("Hello World")
}                    -->
</script>
</head>
<body>
<input type="button" onClick="popup()" value="Click Here">
</body>
</html>
```

Click to see result

Question 5. Write a JavaScript to detect the following properties of browser:

Browser type , if cookies enabled , the language being used.

```
<html>

<body>

<p id="infoBrowser"></p>

<script>

document.getElementById("infoBrowser").innerHTML

="Broswer Type is "+navigator.userAgent

+" Cookie "+navigator.cookieEnabled

+" language: "+navigator.language;

</script>

</body>

</html>
```

Question 6. List and explain advantages and disadvantages of the three possibilities of making a web site dynamic ?

- **Server side processing**: Server is responsible for executing a program (script) and then sends the results in HTML format to client (browser) to interpret.
    - **Advantages :**
        1- Application logic resides at one place (i.e. server).
        2- Ensures better security.
    - Examples: ASP and JSP.
- **Client side processing**: Refers to the processing done at the browser. The browser has two primary parts: the interface (which is the part we see) and the processing software (which is the part that we do not see). The browser interface still has to send messages, but it sends them internally to another part of the overall browser software.

- **Advantages:**
    1- Customize interaction with the user
    2- Validate user input
    3- It reduces the load on the web server.
    4- Less information must travel between the server and the Client.
    5- Saving time and bandwidth.
- Ex: VBScript and JavaScript.

- **Mix of server side and client side processing**: a normal approach. Client side processing is used for formatting the page and validating the input. Secured info like user id and password should not be done on client side.

Question 7. What is namespaces in XML? How it could be used ?

- Namespaces usually take the form of a URL, beginning with a domain name. an optional namespaces label in the form of a directory name and finally version number, which is also optional:

  Xmlns= "http://www.mydomain.com/ns/animals/1.1"

- Used to provide a unique name for a document.

Question 8. What is a web service ? what is the SOAP? Explain the SOAP elements briefly?

- A service that is platform independent, will work between systems that are distributed and can communicate through firewalls without raising security issues.
- SOAP stands for Simple Object Access Protocol; it is a protocol for accessing web services based on XML.

    - **SOAP Envelope Element** it's the root of SOAP message , defined the XML document as soap message
    - **SOAP Header Element** its optional , its contains header information, its contains application-specific information(like payment, authentication)
    - **SOAP Body Element** contains the actual SOAP message intended for the ultimate endpoint of the message
    - **SOAP Fault Element** holds error, status information for a SOAP message. It is optional.

Additional Questions:

Question 9. Write a .NET webservice to add 2 numbers and return the result. Show the webservice extension file name and the attributes being used. The domain name to host the websirvice is : www.abcd.com and the directory is mywebservice. (10points)

FirstService.asmx

```
<%@ WebService language="C" class="FirstService" %>

using System;
usingSystem.Web.Services;
usingSystem.Xml.Serialization;

  [WebService(Namespace="http://localhost/MyWebServices/")]
publicclassFirstService : WebService
  {
      [WebMethod]
publicint Add(int a, int b)
      {
return a + b;
      }

      [WebMethod]
public String SayHello()
      {
return "Hello World";
      }
  }
```

Question 10. List the steps needed to access the database from an ASP Page? (10 points)

The common way to access a database from inside an ASP page is to:

- Create an ADO connection to a database
- Open the database connection
- Create an ADO RecordSet
- Open the RecordSet
- Extract the data you need from the RecordSet
- Close the RecordSet
- Close the connection.

Question 11. What is an ASP session and why would we need it? How is it created and destroyed?

(Maybe not complete answer)

- ASP session is a state that is used to store and retrieve values of a user.
- ASP's Session Object is only created when we store information into the Session Contents collection.
- The server destroys the Session object when the session expires or is abandoned.

Question 12. Write an HTML code using an ASP script to display a dropdown list has three options (display hello word, redirect to Yahoo.com, and redirect to Google.com) . Show all file names and their extensions. (10 points)

(Maybe not complete answer)

```
<html>

<head>

<title>

redirect example html

</title>

</head>

<body>

<form action="http://localhost/05 redirect_example.asp" method="get">

<select name="wheretogo">

<option selected value="hello word"> hello message </option>

<option value="Yahoo">Yahoo </option>

<option value="Google">Google </option>

</select>

<input type=submit value="choose destination">

</form>

</body>

</html>
```

Question 1. What are the underlying technologies that make internetworking work successfully? Explain each one briefly . (10 points)

- Packet Switching
- Routers
- TCP/IP
- Clients + Servers = Distributed Computing
- Computer Names.

Question 2. What are the purposes of DNS servers ? How do they work? (10 points)

- Maps domain names into IP addresses
- Receives requests from other DNS servers to map domain names into IP addresses.

- When a mapping request is received DNS server has the following options:
  - It has the info therefore does the mapping and supplies the answer.
  - It does not have the info in which case it contacts another DNS server called alternate DNS server.
- If there is no mapping possible it simply returns error message.

Question 3. What is a web server? Give 2 examples and explain their advantages and disadvantages? (10 points)

- Web servers are the **computers that actually run websites**.
- A computer program that is **responsible for accepting HTTP requests from web clients**, which are known as web browsers, and serving them HTTP responses along with optional data contents, which usually are web pages such as HTML documents and linked objects (images, etc.).

Internet Information Server/Services (IIS)

- Internet Information Server (IIS) is:
  - World Wide Web server.

  - Gopher server.
  - FTP server.
  - SMTP.

- Windows Vista and Windows Server 2008 has IIS 7.0
- Windows XP has a restricted version of IIS 5.1 that supports only 10 simultaneous connections and a single web site.

Web Server-IIS Advantages

- It is has a GUI interface, which makes the installation a bit easier.
- Works well with other Microsoft applications.
- Performance Monitor feature is very useful.
- Good Tech Support.

Web Server-IIS Disadvantages

- It only works with the Windows OS.
- It is not flexible web server, due to Microsoft constraints.
- Source code is proprietary.

Web Server-Apache

- Apache is developed and maintained by an open community of developers under the auspices of the Apache Software Foundation.
- The first version of Apache, was developed in 1995.
- The original version of Apache was written for UNIX, but there are now versions that run under OS/2, Windows and other platforms.

Some features of Apache are:

- Virtual Hosts
- Customized responses to errors and problems
- Allows you to easily set up password-protected pages

Web Server-Apache Advantages

- Industry standard for most web servers.
- Open source.
- Allows remote administration.
- Multi-platform.

The software is free

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- In simple terms, the virtual hosting company's server will allocate out hosting services and bandwidth to more than one website.
- Two methods:
    - Name based
    - IP based

Name-based virtual hosts use multiple host names for the same web server IP address.

Virtual Host-Name based

How it works?

- The browser sends the URL to the server.
- The server can use this information to determine which web site, as well as page, to show the user.
- For example: www.site1.com and www.site2.com, both resolve to the same IP address.
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Virtual Host-IP Based

- In IP-based virtual hosting each site points to a unique IP address.
- The client is not involved in this process.
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- the HTTP request type,
- whether the content is static or dynamic,
- whether the content is cached,
- hardware and software limitations of the OS of the computer on which the web server runs.
- When a web server is near to or over its limits, it becomes unresponsive.

Question 5. What is the Structure of an HTML File ? (5 points)

```
<html>
<head>
<!-- This section is for the title and technical info of the page-->
<title>
</title>
</head>
<body>
<!-- comments -->
<!-- This section is for all that you want to show on the page -->
</body>
</html>
```

- The **head section** of the web page includes all the stuff that does not show directly on the resulting page.

Question 6. Explain the purpose of each of the following tags for HTML Text format? (5 points)

HTML Text Formatting	
These are the tags for text formats:	
text	writes text as bold

text	writes text in italics
<u>text</u>	writes underlined text
_{text}	lowers text and makes it saller
^{text}	lifts text and makes it smaller
<strike>text</strike>	strikes a line through the text
<pre>text</pre>	writes text exactly as it is,including spaces.
text	usually makes text italic
text	usually makes text bold
** text **	writes text in biggest heading
** text **	writes text in smallest heading
** text **	Adds a paragraph break after the text. (2 line breaks).
<hr>	Horizontal rule (hr) tag places a straight line across the page.
** text **	Left justify text in paragraph.
** text **	Center text in paragraph.
** text **	Right justify text in paragraph.
** **	Adds a single line break

Question 7.What is a plug-in and what is a helper application? (5 points)

- A plug-in is a code module that the browser fetches from a special directory on the disk and installs as an extension to itself.
- A plug-in runs as an integral part of the browser (i.e. in the same process).
- Plug-ins has access to, and may modify the appearance of the current page (eg. run a video sequence within the browser window).
- A plug-in is removed from the browser's memory upon leaving the page from where it is referenced.
- The interaction between the plug-in and the browser is through a browser-specific procedures interface.

Helper Applications

- A standalone application run as a separate process.
- The only interaction between the browser and the application is at invocation time (command line arguments, eg. a file path) and upon termination of the application.

Examples:

- Adobe Acrobat Reader (could be a plug-in too ??)
- Microsoft Word

Question 8. What to do if too many requests come to the CPU? (5 points)

Problem : no single cache

Solutions:

1)Let Front End keep all requests

2) Use a shared memory multiprocessor

Question 9. What are Cookies ? How do they work for client and server? (10 points)

- A cookie is a **small piece of information** as a file (up to 4K) stored on the **client machine** in a user-specific cookies-directory
- Cookies are good for keeping track of return visitors
- Cookies are generated at the server side and is delivered to the browser before the Web page

Client side:

- When the user specifies a URL, the browser searches it's cookie directory for a cookie with the domain name specified in the URL.
- If a cookie for the actual domain exists, it is uploaded to the server with the page request.

Server side:

- The first time a Web page is requested no cookie follows the request so **the server creates a cookie and returns it** before the requested page.
- For later visits to the same page, the request will contain the cookie generated at the previous visit.
- The server updates the cookie and returns it with the page
- This way the server "remembers" the client from one visit to the next.

Question 10. Write an HTML code to create a webpage that has the following features (30 points):

1- Title of the webpage "**CSC457 Internet Technology**"
2- Background color is yellow, center alignment, and font size 24pt using ***class attribute and CSS external file***.
3- `Write "This is a red centered paragraph"` in the webpage.

CSS file : test1.css

```
body{ background-color: yellow}

p.red {font-size: 24pt; color: red}
p.center {text-align: center;}
```

Html File :

```
<html>

<head>
<title> الانترنتCSC457 Internet Technology </title>
<link rel="stylesheet" type="text/css" href="test1.css" />

</head>
<body>

<p class="red center"> This is a red centered paragraph. </p>

</body>
</html>
```

Q1) What are the main important attached to DOM? Explain each one briefly.

- Properties are data elements of objects. For example for document object some properties are: bgcolor, title, URL
- Methods are built-in actions or functions that an object can perform. For example for document object one common method is: write(). We use document.write('Hello').
- Most objects in the DOM have specific events to which they can respond. For example for form object we have onReset event that will fire when the text in textbox changes.
-

Q2) write HTML code using JavaScript popup an alert has " HELLO WORD" Massage when clicking on a button

```
<html>
<body>
<button onclick="Masge()">try it </button>
<script>
}()function Masge
;("alert("Hello world
{
<script/>
<body/>
</html>
```

q3) Write a JavaScript to detect the following properties of browser:
Browser type , if cookies enabled , the language being used.

```
<html>
<body>
<p id="infoBrowser"></p>
<script>
document.getElementById("infoBrowser").innerHTML
="Broswer Type is "+navigator.userAgent
+" Cookie "+navigator.cookieEnabled
+" language: "+navigator.language;
</script>
</body>
</html>
```

Q4) What is a dynamic web page? Why would we need a dynamic web page?

- A dynamic web page is one that is crated at run time, on the fly by executing some programs then converting the output into HTML format and sending it to the bowers to interpret.
- Needed wherever we want to interact with the visitor. For example, search engine is a dynamic web application.
- Dynamic web page is needed in e-commerce applications.
- For a static web page a server simply locates a pre created html file saved on its hard disk and send it to browser to interpret.
- For a dynamic web page the server locates and execute a pre created program and sends the resulted HTML to browser.

Q5) List and explain advantages and disadvantages of the three possibilities of making a web site dynamic ?

- **Server side processing**: Server is responsible for executing a program (script) and then sends the results in HTML format to client (browser) to interpret.

  Advantages :

  1. Application logic resides at one place i.e. server
  2. Ensures better security.

- **Client side processing**: Client-side processing refers to the processing done at the browser, the browser has two primary parts: the interface (which is the part we see) and the processing software (which is the part that we do not see) , The browser interface still has to send messages, but it sends them internally to another part of the overall browser software.

  Advantages:

  - Customize interaction with the user
  - Validate user input
  - It reduces the load on the web server.
  - Less information must travel between the server and the
  - Client saving time and bandwidth.

  Ex: VBScript , JavaScript

- **Mix of server side and client side processing**: a normal approach, client side processing is used for formatting the page and validating the input, secured info like user id and password should not be done on client side.

Q6) How ASP works?

- When a browser requests an HTML file, the server returns the file.
- Browser reads it and shows the result.
- When a browser requests an ASP file
  - Server passes the request to the ASP engine.
  - The ASP engine reads the ASP file, line by line, and executes the scripts in the file.
  - Finally, the ASP file is returned to the browser as plain HTML.

Q7) What is namespaces in XML? How it could be used ?

- Namespaces usually take the form of a URL, beginning with a domain name. an optional namespaces label in the form of a directory name and finally version number, which is also optional.
- Used to provide a unique name for a document.

Q8) write and compare between HTML and XML code for a book has the following data: title first name of author , last name of author , publisher , and year of publication

XML

```
<book>
      <title>Sense and Sensibility</title>
      <fitstname>mshary </ fitstname >
      <lastname>alharbi</lastname>
        <publisher>jarir</publisher>
      <year>1811</year>
   </book>
```

HTML

```
<html>
<body>

<h2>Books</h2>
<hr>

<em>fitstname</em>, <b> mshary</b><br>
<em>lastname</em>, <b> Alharbi</b><br>
<em>publisher</em><b> jarir</b><br>
<em>year</em> <b> 2017</b><br>

</body>
</html>
```

Q9) What is an XSL?

Stand for: Extensible stylesheet language. includes two independent parts: a transformation language (XSLT) and formatting objects language (XSL:FO)

its used to specify how something should be display/rendered, they lead to separation of documents content form presentational information

Q10) what is a web service ? what is the SOAP? Explain the SOAP elements briefly?

A service that is platform independent, will work between system that are distributed and can communicate through firewalls without raising security issues.

SOAP stands for Simple Object Access Protocol, it is a protocol for accessing web services based on XML.

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King Saud University
College of Computer and Information Sciences
Department of Computer Science
CSC 457Internet Technologies

First Semester, 1436/1437 Time: 1:00 – 4:00 PM

(Answer all 10 questions)

Final Exam

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advantages

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</head>
<body>

<pclass="red center">This is a red centered paragraph. </p>

</body>
</html>
```

Question 4. Write an HTML code using Java script to popup an alert has a "Hello World" message when clicking on a button.

Using JS- Event Driven Example

<html>

<head>

<script language="javascript">

```
<!--

function popup() {

alert("Hello World")

}                                   -->

</script>

</head>

<body>

<input type="button" onClick="popup()" value="Click Here">

</body>

</html>Click to see result
```

Question 5.Write a java script to detect and display the following properties of a browser:

-Browser type.

- If cookie is enabled

- The language being used.

```
<html>
<body>
<scripttype="text/javascript">
var browser=navigator.appName;
varb_version=navigator.appVersion;
varb_cookie=navigator.cookieEnabled;
varb_language=navigator.systemLanguage;

document.write("Browser name: "+ browser);
document.write("<br>");
document.write("Cookie enabled: "+ b_cookie);
document.write("<br>");
document.write("Language: "+ b_language);

</script>
</body>
</html>
```

Question 6. List and explain the advantages and disadvantages of the three possibilities of making a web site dynamic?

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- Client side processing
- Mix of server side and client side processing
- **Server side processing**
    - Server is responsible for executing a program (script) and then sends the results in HTML format to client (browser) to interpret.
    - Advantages are:
        - Application logic resides at one place i.e. server
        - Ensures better security.
- Common scripting technologies user are:
    - Active Server Pages (ASP)
    - Java Server Page (JSP)
- Client Side Processing

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    - Validate user input
    - It reduces the load on the web server.
    - Less information must travel between the server and the
    - client saving time and bandwidth.
- Common scripting technologies user are:
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    - JavaScript

Mix of server side and client side processing is a normal approach.

- Client side processing is used for formatting the page and validating the input.
- Secured info like user id and password should not be done on client side.

Question 7. What is a Namespaces in XML ? How it could be used ?

- Namespace is used to provide a unique name for a document.
- One way to do it by using a prefix to the element :
  - Animal:name , person:name
- Namespaces usually take the form of a URL, beginning with a domain name, an optional namespaces label in the form of a directory name and finally a version number, which is also optional :
- Xmlns="http://www.mydomain.com/ns/animals/1.1"

Question 8. What is a Web Service ? What is the SOAP ? Explain the SOAP elements briefly ?

- A service that is platform independent, will work between systems that are distributed and can communicate through firewalls without raising security issues.
- Simple Object Access Protocol (SOAP)
  - Provide a mechanism that allows access to objects across the NET.
    - Cross platform boundaries
    - Go through firewall setup for normal web browsers (port 80)
    - Post little security risk
  - SOAP is a text file using XML.
  - Remote Procedure Call (RPC)
    - One of the most common messaging pattern.
    - Client node sends a request to another node (usually server), which then responds.
- SOAP = XML + HTTP
- The main idea behind SOAP is to wrap the message you want to send to the remote application in XML and then transport it over HTTP.
- SOAP shares the same port as any other Web communication over port 80.

- SOAP is using the same HTTP request/response protocol.
- The Content-Type header for SOAP request and response states:
    - **POST / item HTTP/1.1**
    - **Content-Type : application/soap+xml ; charset=utf-8**
- The mime type is **application/soap+xml**

- The Content-length header for SOAP request and response specifies the number of bytes in the body.
- Using SOAP with XML contains several elements :
    - Envelop – identifies the XML document as SOAP message (required)
    - Header – contains header information (optional)
    - Body – contains call and response information (required)
    - Fault – provides information about errors occurred while processing the message (optional)

Question 9. Write a .NET webservice to add 2 numbers and return the result. Show the webservice extension file name and the attributes being used. The domain name to host the websirvice is : www.acbd.com **and the directory is mywebservice.**

Following is our First Web Service example which works as a service provider and exposes two methods (add and SayHello) as Web Services to be used by applications. This is a standard template for a Web Service. .NET Web Services use the .asmx extension. Note that a method exposed as a Web Service has the WebMethod attribute. Save this file as FirstService.asmx in the IIS virtual directory (as explained in configuring IIS; for example, c:\MyWebSerces).

FirstService.asmx

```
<%@ WebService language="C" class="FirstService" %>

using System;
usingSystem.Web.Services;
usingSystem.Xml.Serialization;

  [WebService(Namespace="http://localhost/MyWebServices/")]
publicclassFirstService : WebService
  {
      [WebMethod]
publicint Add(int a, int b)
      {
return a + b;
```

```
        }

        [WebMethod]
public String SayHello()
        {
return "Hello World";
        }
  }
```

-

Question 10. List the steps needed to access the database from an ASP Page? (10 points)

The common way to access a database from inside an ASP page is to:

- Create an ADO connection to a database
- Open the database connection
- Create an ADO RecordSet
- Open the RecordSet
- Extract the data you need from the RecordSet
- Close the RecordSet
- Close the connection.

1. Question 1. What is the main purpose of DNS servers ?
(0/10 Points)

- [x] Maps domain names into IP addresses ✓
- [ ] Receives requests from other DNS servers to map domain names into IP request
- [ ] Reverse IP address lookup ✓
- [ ] List of mail servers ✓
- [ ] All of the above

2. Question 2. What is a web server?
(10/10 Points)

- (•) Web servers are the computers that actually run websites ✓
- ( ) A computer program that is responsible for accepting HTTP requests from processors
- ( ) A computer program that send HTTP responses along with optional data processing address
- ( ) All of the above

3. Question 3. What is a Virtual Host?
(10/10 Points)

- Virtual hosting is a method that servers such as web servers use to host more than one domain name on the same computer
- Virtual hosting is a method that servers such as web servers use to host more than one domain name on the same IP address
- Virtual web hosting is a good solution for small- to medium-sized websites that aren't constantly being visited or that have reasonable bandwidth needs
- (selected) All of the above ✓

4. Question 4. What are the main three important items attached to DOM ? (10 points) *
(10/10 Points)

- Properties , methods, and objects
- Methods, functions , and properties
- (selected) Properties , methods, and events. ✓
- Properties , methods, and background
- All of the above

5. Question 5. What is a dynamic web page and why would we need it? (10 points) *
(10/10 Points)

- Crated at run time, on the fly by executing some programs then converting the output into XML format and sending it to the bowers to interpret.
- Wherever we want to interact with the visitor.
- Crated at run time ,on the fly to interact with the visitor. ✓
- Execute a pre created program and sends the resulted HTML to browser.
- None of the above

6. Question 6. How could you make a web site dynamic? *
(10/10 Points)

- Server side processing for executing a program (script) and then sends the results in HTML format to client (browser) to interpret.
- Client side processing for formatting the page and validating the input.
- Mix of server side and client side processing
- All of the above ✓
- None of the above

8. Question 8. What is a Web Service ? *
(5/5 Points)

- (●) A service that is platform independent, will work between systems that are distributed and can communicate through firewalls without raising security issues ✓
- ( ) A service that is platform independent, will work between systems that are distributed and can not communicate through firewalls without raising security issues
- ( ) A service that is platform independent, will work between systems that are not distributed and can communicate through firewalls without raising security issues
- ( ) A service that is platform independent, will work between systems that are distributed and can communicate through firewalls with raising security issues
- ( ) None of the above

9. Question 9.. List the steps needed to access the database from an ASP Page? * (10/10 Points)

- [x] Create an ADO connection to a database
- [x] Open the database connection
- [x] Create an ADO RecordSet
- [x] Open the RecordSet
- [x] Extract the data you need from the RecordSet
- [x] Close the RecordSet
- [x] Close the connection.
- [ ] Close all data
- [ ] All of the above