B4.5-R4: INTERNET TECHNOLOGY AND WEB SERVICES

NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours **Total Marks: 100**

1.
a) What does DNS stands for? What is its main purpose?
b) What do you mean by Web server and Web pages?
c) What is an API? Explain how it is different than a general program module and write its characteristics.
d) Compare and contrast FTP and HTTP.
e) Define Firewall. What are the common functions of firewall?
f) Write merits and limitations of Apache and IIS Web Servers.
g) What is Virtual Reality? Write in brief on various components involved in creation of Virtual Reality.

(7x4)

2.
a) What is a Browser? How it works? Discuss various types of Browsers. How various plugins are applicable? Discuss with an example.
b) Explain the 3-Tier architecture for Web-based Systems with a diagram. How it is well suited for development of any business application?

(9+9)

3.
a) Write a PHP Program named states.php that creates a variable $states with the value "Mississippi Alabama Texas Massachusetts Kansas". Write a program that does following:
   i) Search for a word in $states that ends in "xas". Store this word in element 0 of an array $statesArray.
   ii) Search for a word in $states that begins with "k" and ends in "s". perform a case sensitive comparison. Store this word in element 1 of $statesArray.
   iii) Search for a word in $states that begins with "M" and ends with "s". Store this element in element 2 of $statesArray.
   iv) Search for a word in $states that ends in "a". Store this word in element 3 of $statesArray.
   v) Search for a word in $states at the beginning of the string that starts with "M". Store this word in element 4 of the $statesArray.
   vi) Output the array $statesArray to the screen.

b) Discuss various issues in development of applets and servlets? Differentiate applets and servlet. By assuming any example, design one applet and servlet using Java.

(9+9)

4.
a) Why applications such as interactive audio and video typically run RTP on top of UDP. What is the purpose of RTP Control Protocol (RTCP)?
b) What is SOAP and how it will be utilized in web-components?
c) How do you make an image clickable in HTML? Give an example.

(6+6+6)

5.
a) How public key and private key work for encryption?
b) What is trivial file transfer protocol? Explain briefly.
c) Explain the role of Client side and Server side scripting in a Web development.

(6+6+6)

6.
a) Discuss the life cycle of JSP.
b) What is meant by Protocols and what major protocol types are used in Web Services?
c) What is Secure Electronic Transaction (SET)? Explain various components involved in achieving SET.

(6+6+6)

7. Write short notes on **any three** of the following:
a) Digital Certificates
b) XML
c) Voice over IP (VoIP)
d) JDBC

(3x6)