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 is FTP ? Explain in brief.

(b) What is a Datagram? Discuss the structure of a Datagram with an example.

(c) Differentiate between Client-side and Server-side scripting.

(d) How does the 3-way handshake work for TCP ?

(e) What are World Wide Web and DNS? Why is DNS so important for the World Wide Web ?

(f) What is SQL injection attack? How it will be prevented.

(g) Write any four differences between IPv4 and IPv6.

(7×4)

2. (a) What is Web Services ? Explain different components (SOAP, WSDL, UDDI) of Web Service.

(b) Write the name of OSI network layers. With the help of block diagram, describe how communication takes place between two host using OSI layers.

(10+8)

3. (a) What is MySQL ? Explain following MySqli function using php server side script.

(i)   mysqli_connect()

(ii) mysqli_query()

(iii) mysqli_fetch_array()

(iv) mysqli_select_db()

(b) How symmetric key cryptography is different from asymmetric key cryptography? Give suitable example.

(9+9)

4. (a) What is the difference between unicast, broadcast and multicast traffic ? Give an example of a unicast and a broadcast protocol.

(b) What is a Digital Signature ? Explain how it helps to ensure Authentication, Integrity and Non-Repudiation.

(c)   Write PHP script for following tasks :
(i)   Design HTML form which include Student ID, Student Name, Email
(ii) Create database, [Database Name should be 'Students']
(iii) Create table and insert ten records.
      [Table Name should be 'tblStudent_Info' and it contains stdID, stdName, Email]
(iv) Retrieve all records from tblStudentInfo' table and display in HTML table.

(5+6+7)

5.   (a)   What is Array ? What are the different types of array supported by PHP ? Explain with example.
(b)   What is Java Server Pages ? Draw and explain life cycle of JSP.
(c)   Differentiate between Session and cookies. Give suitable example

(6+6+6)

6.   (a)   Explain in detail the role of each component of WAMP (Windows, Apache, MySQL and PHP/Perl) in creation and deployment of a Web application.
(b)   Write various steps involved in jpeg file encoding process.

(9+9)

7.   Write a short note on following :
(a)   VPN (Virtual Private Network)
(b)   GET vs POST
(c)   TCP/IP Protocol stack

(6+6+6)

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