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 a Datagram? Discuss the structure of a Datagram with an example.
b) Differentiate between a Web Browser and Web Server.
c) Define Common Gateway Interface (CGI). Name atleast SIX environment variables those are passed to CGI programs.
d) Explain in brief the Client-side and Server-side scripting.
e) Differentiate between IPv4 and IPv6 addresses. Explain the various packet headers in IPv6 address.
f) Write a code in PHP that can display different image randomly each time out of four images.
g) What is a cookie? Briefly explain the drawbacks of cookies.

(7x4)

2.
a) Explain Unicast, Broadcast, Multicast and Anycast communication modes and also write merits and limitations of each.
b) Explain in detail on Simple Network Management Protocol (SNMP) and write its security implications.

(10+8)

3.
a) How and what kinds of error can creep into XML data? How can they be eliminated?
b) Define API? Explain on server specific APIs.
c) Write various steps involved in jpeg file encoding process.

(6+6+6)

4.
a) Explain the Simple Object Access Protocol (SOAP).
b) What role will UDDI play in web services applications?
c) Explain the 3-Tier architecture used for web application development.

(6+6+6)

5. Explain the following protocols:
a) Internet Group Management Protocol (IGMP)
b) H.323
c) Real-time Transport Control Protocol (RTCP)

(6+6+6)

6.
a) Explain the role of each software component of a LAMP Server.
b) What is meant by Authentication and Non-repudiation? Explain how they can be ensured?
c) What is SQL injection attack? How it can be prevented? Explain with an example.

(6+6+6)

7. Write short notes on **any three** of the following:
a) Proxy Server
b) Remote Access Server
c) Java Server Pages (JSP)
d) HTTP and HTTPS protocols
e) JPEG and MPEG

(6+6+6)