

## 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) Describe the difference between the Client-side and Server-side scripting.
  - b) What are the components in a 3-Tier Web Architecture. Elaborate.
  - c) What makes up a Web Service Protocol Stack? Explain.
  - d) What is a Http Session objects? Briefly explain how to create a session in a web application.
  - e) How is a Web Browser different from a Web Server? What is their role in a web application?
  - f) Explain using an example how will you perform an 'SQL Injection Attack' on a website.
  - g) Elaborate the structure and utility of a Datagram with an example.

**(7x4)**
  
2.
  - a) What is a TCP/IP protocol stack? Explain at least TWO protocols of each layer briefly.
  - b) Describe the difference in communicating using HTTPS protocol vs HTTP protocol. How HTTPS makes communication secure? Explain

**(9+9)**
  
3.
  - a) What are the elements of Simple Object Access Protocol (SOAP)? Explain the role of each in a Web Service.
  - b) What is a UDDI registry? How it helps applications in communicating with a Web Service?

**(9+9)**
  
4.
  - a) What is Virtual reality? Explain its role with Browser and Apps.
  - b) Differentiate between LAMP and WAMP Technologies w.r.t. their usage in a Web application development?

**(9+9)**
  
5.
  - a) What is WSDL? Explain the structure of a WSDL file in detail.
  - b) How does an ActiveX control works? Explain with an example.

**(9+9)**
  
6.
  - a) What is a Servlet? Explain the different stages in a life cycle of a Servlet? What are the advantages of Servlet over CGI?
  - b) What is XML Signature? Explain its role in providing non-repudiation feature with an example?

**(9+9)**
  
7. Write short notes on **any three** of the following:
  - a) Java Server Pages (JSP)
  - b) Cross-Site Scripting (XSS) Flaws
  - c) Buffer Overflows
  - e) VoIP
  - f) AVI
  - g) Difference between JPEG and MPEG

**(3x6)**