Web Technology IT – 704

Answer any five out of eight questions

Time: 3 Hours

Total Marks: 70

1. (a) Briefly describe the JSP architecture. Describe the JSP lifecycle with suitable block diagram.
(b) With suitable diagram describe the execution steps of JSP.
(c) Explain GET and POST Methods With example.   [(3+3)+4+(2+2)]

2. (a) Explain implicit object out, request response in a JSP.
(b) What are the main differences between sessions and applications?
(c) Explain various JSP directives.   [(2X3)+4+4]

3. (a) Briefly discuss JDBC architecture and types of JDBC drivers with suitable diagram.
(b) Write the advantages of JDBC.
(c) Write a JSP code that takes the user's name and age through an input form. Echo backs the name and age along with a message stating, the price of movie tickets. The price is determined by the age passed to the JSP page.
   • If the age is greater than 62, the movie ticket price is Rs. 77.00.
   • If the user is less than 10 years old, the price is Rs. 50.00.
   • For everyone else, the price is Rs. 90.50.   [(2+3)+2+7]

4. (a) What are the two categories of cryptography methods? What are the main differences between the categories?
(b) Which one is superior between poly-alphabetic and mono-alphabetic substitution? Justify.
(c) Explain the Vigeneer cipher with a suitable example.   [(2+2)+4+6]

5. (a) Differentiate a block cipher and a stream cipher.
(b) Describe with a suitable diagram the functioning of DES encryption algorithm.
(c) DES default key size is 56 bit. What should be the measure to lengthen the key and at the same time keep the new DES block compatible with default version? Explain.
      [4+6+4]

6. (a) Explain the working process of public key cryptography with suitable block diagram.
(b) Explain the working methods of RSA algorithm.
(c) Write down the time line diagram of TCP socket client server communication.   [4+6+4]

7. (a) How the mail transfer is done by SMTP. Show the intermediate steps using suitable diagram.
(b) Write down the differences between SMTP and MIME protocol.
(c) What are the functions of POPS and IMAP protocol?   [4+4+(3+3)]

8. Write short notes on any two.   [7+7]
      i.   Firewall
      ii. Dynamic Host Configuration Protocol
      iii. Socket I/O Multiplexing