UNIVERSITY OF KERALA

SCHOOL OF DISTANCE EDUCATION

BCA (2020 admission) Fourth Semester
Assignment Questions

CP1441 INTRODUCTION TO INFORMATION SECURITY

1. Explain about cybercrime and IT acts.
2. Write note on malicious software in detail.
3. Explain in detail about private and public key cryptography.
4. Explain about different types of firewalls with neat diagram.
5. Explain the following
    a. Patent Law and Copyright Law
    b. IPR
    c. IT Act and Copyright Act
    d. Spoofing and Sniffing.
6. Write a note on RSA Algorithm.

CP 1442 VISUAL TOOLS

1. What is OLE container? How to create an OLE container?
2. Explain different types of controls used in VB 6.0?
3. Explain control and loop statement in VB with example.
4. Differentiate SDI and MDI?
5. Explain about the error handling mechanism and its type in VB?
6. Write short note on
    a. Scope of a variable
    b. Project in VB
    c. Function in VB
    d. Event in VB
    e. Wizards in VB

CP 1443 DATABASE MANAGEMENT SYSTEMS

1. Explain the ER model and explain the symbols used in it?
2. Explain aggregate function in SQL with example?
3. Explain about the different types of normal forms in DBMS?
4. Explain about different types of DML and DDL statements in SQL with example?
5. Explain the concepts of primary key, foreign key and candidate key with example?
6. Write short note on
    a. Nested queries in SQL
    b. Union operation in relational algebra
    c. Intersection operation in relational algebra
    d. DBA

e. Weak entity and strong entity

CP 1444 DESIGN AND ANALYSIS OF ALGORITHMS

1. Explain about big O, big Ω and θ asymptotic notations?
2. Explain about the strategies of Divide and Conquer, Dynamic Programming and Greedy Algorithms with example?
3. Write short note on Strassen's matrix multiplication. Also determine its time complexity.
4. Illustrate the working of Kruskal's algorithm and Prim's algorithm with example.
5. Write note on back tracking algorithm and how this algorithm is used to solve 8 queens problem.
6. Write any two sorting algorithms. Compare its best, average and Worst case complexity.

CP 1445 SYSTEM SOFTWARE

1. Write note on SIC machine architecture and SIC/XE machine architecture?
2. What is an assembler directives? Explain any five assembler directives with example.
3. Discuss about machine dependent assembler features?
4. What is meant by a macro processor? Write note on DEFTAB,NAMTAB and ARGTAB in macro processors?
5. With a neat diagram explain various editor structure components?
6. Explain about machine dependent and independent loader features?