BCA 2nd YEAR

SYSTEM ANALYSIS & DESIGN

F.M- 100 Last Date to Submit: - 13th March

- (1) Explain different project estimation techniques in details.
- (2) Explain Waterfall model in details with a suitable example.
- (3) Draw a DFD up to level 2 for Airline management system.
- (4) Explain the following term:
 - (a) Cost Estimating (b) Cost control (c) Cost Budgeting
- (5) What are the testing methods? Explain with examples.

BCA 2nd YEAR

.NET PROGRAMMING

F.M- 100 Last Date to Submit: - 13th March

- (1) (a) What is Trace in VB.Net?
 - (b) What is Authorization and Authentication?
- (2) What is the difference between Thread and Process?
- (3) How can we store decimal Data in .NET?
- (4) Explain the following term:
 - (a) CBOOL (b) COBJ (c) CSNG (d) CLNG (e) CBYTE
- (5) Write the steps for adding members and tools bar in MDI form.

BCA 2nd YEAR

C++ PROGRAMMING

F.M- 100 Last Date to Submit: - 13th March

- (1) What is the access modifier available in C++ class? Explainthem with suitable examples.
- (2) Write a program in C++ which read a set of character using pointer then print in the reverse order.
- (3) What is the difference between structure and class?
- (4) Design in oops program in C++ to create the payroll of an organization by the following information:
 - (a) Employee name (b) Employee id (c) Account No
 - (d) Date of joining (e) Basic Pay (f) DA, HRA etc.
- (5) What are the static member variable and function? Write a program to count no between 20 to 120, which are not divisible by first three even numbers.

BCA 2nd YEAR

RDBMS

F.M- 100 Last Date to Submit: - 13th March

- (1) What are the different types of database users who interact the database system? Explain each of them in brief.
- (2) What is SQL? What are the two major categories of SQL commands? Explain them.
- (3) What is Data dictionary? What are the information stored in the data dictionary? What are the benefits of Data dictionary? Who are the users of Data dictionary?
- (4) Describe the following in details:
 - (a) Foreign Key
- (b) Superclass
- (c) Categorization
- (5) (a) Differentiate between cartesian product and Natural join operations used in relational algebra. How does the domain relational calculus differ from tuple relational calculus?
- (b) Explain the 3-schema architecture of DBS. Why do we need mappings between schema levels? How do different schema definition languages support this architecture?

BCA 2nd YEAR

DATA STRUCTURE

F.M- 100	Last Date to Submit: - 13 th March
Answer all the questions: -	
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- (1) Create a binary search tree when elements arrive in the following order: 15,5,20,7,29,11,23,29,13,12
- (2) Explain binary tree with suitable example with in-order-order and post-order traversal. List the properties of a binary tree.
- (3) Explain Dijkstra's algorithm with a suitable example.
- (4) Describe the following in details:
 - (a) DFS (b) Hashing (c) AVL Tree
- (5) (a) What is circular linked list? Write an algorithm for inserting a node at the front.
 - (b) What is stack? Implements its push () and pop () functions with the help of linked list methods.

BCA 2nd YEAR

COMPUTER NETWORK

F.M- 100 Last Date to Submit: - 13th March

Answer all the questions: -

- (1) Discuss TCP and UDP transport layer protocol in details.
- (2) Discuss Distance vector and Link-state routing in details.
- (3) Explain different types of switching techniques along with their advantages and disadvantages.
 - (4) What is Framing and why it is required? Explain the Framing concept with respect to Data link layer?
 - (5) Explain working of Pure Aloha and Slotted Aloha? Derive an expression to proof the claim that Slotted Aloha is better than Pure Aloha.