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BC-301

System Analysis & Design

BCA 3rd Sem. (Session-2017-20)

Time : 3 Hrs

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer any five questions.

1. Define System. List the various steps involved in the system development life cycle (SDLC).
2. Explain briefly about the criteria for Hardware & Software selection.
3. What is cohesion? Explain any four types of cohesion.
4. Describe the various methods of Investigations.
5. Discuss on preliminary Investigation and project Review.
6. Explain the term feasibility study. Explain the categories of feasibility.
7. What is the purpose of testing? Discuss Alpha and Beta Testing.
8. Explain on design of database interaction and Data communication.
9. List out various methods commonly used for input verification and control.

P.T.O.

10. Write short notes on any two of the following:

- (a) Decision Tree
- (b) Data Dictionary
- (c) Bench Marking
- (d) SRC

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BC-302

DBMS

BCA 3rd Sem. (Session-2017-20)

Time : 3 Hrs

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer any five questions.

1. Define different types of Database and their role and responsibilities.
2. What is E-R model? Describe its basic concept in detail.
3. Differentiate between Candidate Key, Primary Key, Super Key & Referential Key and illustrate it with the help of data table.
4. How Generalisation and Specialisation are reverse to each other? Also describe Aggregation.
5. Describe the terms Consistency and Concurrency control in DBMS.
6. What are the advantages and disadvantages of DBMS over traditional file based system? Explain in detail.
7. What is Data Independence in DBMS? Describe it.
8. What are the different types of relationship between tables in DBMS? Describe it.

P.T.O.

9. What do you mean by the term constraints in DBMS?
Describe various constraints used in DBMS to manage and maintain a reliable database.
10. Write following SQL Commands to maintain employee table:
- (a) ALTER Command
 - (b) UPDATE Command
 - (c) INSERT Command
 - (d) DELETE Command

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BC-303

OOP in C++

BCA 3rd Sem. (Session-2017-20)

Time : 3 Hrs

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer any five questions.

1. What is Inline Function? Write C++ program to find Maximum of given two number using Inline function. Also explain the Criteria where inline functions are not used.
2. What is operator overloading ? Write a C++ program to overload unary operator (=).
3. Write a C++ program to overload assignment (=) operator.
4. what is Inheritance? Discuss the types of Inheritance with suitable example.
5. What is pure Virtual Function? Write a C++ program to explain the concept of Pure virtual function.
6. What is File System in C++? Write a C++ program to read and write information in a binary file.
7. Discuss File stream classes. Write a C++ program to read and write information in a Text file.

P.T.O.

8. What is Multiple inheritance? Write C++ program to show the concept of Multiple inheritance.
9. What is class and object? Write a C++ program enter five students Name, Roll Number and Total marks. Display Name, Roll Number and Marks.
10. Write a C++ program to overload binary operator (-) using friend Function.

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BC-304

Computer Network

BCA 3rd Sem. (Session-2017-20)

Time : 3 Hrs

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer any five questions.

1. What is Network Topology? Define all types of topology. Differentiate between Bus Backbone and a Star Backbone.
2. What is Computer Network? Differentiate between LAN and WAN. What is difference between a packet and a frame?
3. What are the goals of routing algorithms in a Packet switch network? How will you classify the routing algorithm?
4. What is TCP/IP? What is meant by data encapsulation? Explain data encapsulation in TCP/IP.
5. What is Transmission Media? Explain about the different types of Transmission medias in computer network.
6. What are connecting devices in Computer Network? Explain about different types of connecting devices in computer network.

P.T.O.

7. What do you understand by CSMA/CD Protocol? Explain its working. Also explain HTTP protocol and its working.
8. What is protocol? Explain functioning of user Data Gram (UDP) and address resolution Protocol (ARP) in details.
9. What is switching? Explain about the data link layer switching and spanning Tree Bridges.
10. Write short notes on following:
 - (a) IP Addressing
 - (b) Domain name Server
