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"IT'S HARD TO BEAT A PERSON WHO NEVER GIVES UP."

Babe Ruth, American professional baseball player

B.E. Fifth Semester (Computer Science Engineering) (C.B.S.)

Object Oriented Programming

P. Pages : 2

Time : Three Hours

|| *0050* ||

NKT/KS/17/7350

Max. Marks : 80

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Notes : 1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Due credit will be given to neatness and adequate dimensions.
9. Assume suitable data whenever necessary.
10. Illustrate your answers whenever necessary with the help of neat sketches.
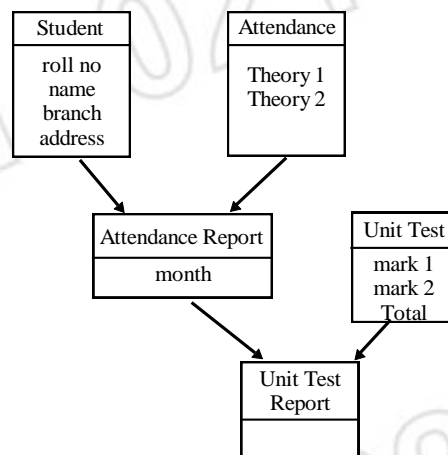
1. a) What are the advantages / Benefits of OOPS. **7**

b) Write a program to declare a class Account having data members acc-number and balance. Accept this Data for 5 accounts and display the data of accounts having balance greater than 2000. **6**

OR

2. a) Explain copy constructor with suitable example. **6**

b) Write a program to declare a class Employee having data members as name, and basic-salary. Accept and display data for 02 employees. **7**

3. a) How are operators overloaded? Illustrate with example. **7**

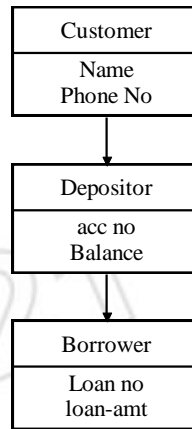b) Explain Pitfalls of operator overloading. **6**

OR

4. a) Explain New and DELETE operator with Example. **7**

b) Write a program to overload the + operator so that two strings can be concatenated. **6**

5. Identify the following inheritance and write a program by assuming proper member functions. **14**

OR

6. a) Identify following Inheritance and write a program by assuming proper member function. **7**

```
┌─────────────────┐
│    Customer     │
├─────────────────┤
│     Name        │
│   Phone No      │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│    Depositor    │
├─────────────────┤
│     acc no      │
│    Balance      │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│    Borrower     │
├─────────────────┤
│    Loan no      │
│   loan-amt      │
└─────────────────┘
```

b) Explain function overloading with example. **7**

7. a) What is virtual function? Explain with example? **6**

b) Write down the difference between static Binding and Dynamic Binding. **7**

OR

8. a) Define ground function? What is static function? Illustrate friend function with proper example. **7**

b) Explain the concept of virtual Base classes. **6**

9. a) Write the syntax and use of getline() and write () function. **7**

b) How will you create manipulators. **6**

OR

10. a) What are streams? Why they are useful, explain in detail. **7**

b) How can a file be opened for both reading and writing. **6**

11. a) What is generic programming? How it is implemented in C++? **7**

b) What is the need for template function in C++? How are they created? **7**

OR

12. a) What is the need for Exception Handling. also explain multiple try-catch blocks. **7**

b) Write short note on: **7**
    i) Associative containers.
    ii) Standard Template Library.

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High expectations are the key to everything.

~ Sam Walton

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