



SF-8189

B. E. - II (Sem. - III) Examination

May/June - 2011

Object Oriented Concepts & Programming
(Elective - offered by computer branch)

Time : 3 Hours]

[Total Marks : 100

Instruction :

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
B. E. - 2 (SEM. - 3)

Name of the Subject :
OBJECT ORIENTED CONCEPTS & PROGRAMMING

Subject Code No. : 8 1 8 9 Section No. (1, 2,.....): Nil

Seat No. :

Student's Signature

- Q-1 [a] Attempt following. 10
- 1 Define identity with example. 2
 - 2 A _____ is a physical or a conceptual connection among objects. 1
 - 3 What is a model? Enlist types of models. 2
 - 4 Differentiate: Abstract class VS Concrete class. 2
 - 5 A class diagram is a graph whose nodes are states and whose directed arcs are transactions between states. 1
 - 6 Define: scenarios with an example. 2
- Q-1 [b] Attempt following. 10
1. What is object oriented? Explain characteristics of objects. 5
 2. Categorize the following relationships into generalization, aggregation or association. 5
 - a. A dining philosopher is using a fork.
 - b. A file is an ordinary file or a directory file.
 - c. A person plays for a team in a certain year.
 - d. File contains records.
 - e. A student takes a course from a professor.
- Q-2
- (a) Draw data flow diagram (DFD) for result management system. 10
- OR
- (a) Draw data flow diagram (DFD) for library management system. 10
- (b) Explain overriding operations. Also discuss reasons for overriding. 5
- OR

- (b) Explain state diagram using an example. 5
- Q-3 Attempt any three. 15
- (a) Write a short note on Object Modeling Technique (OMT).
- (b) Explain multiplicity with example.
- (c) Differentiate: Aggregation VS Generalization
- (d) Explain inheritance with example.
- Q-4 Attempt following.
- (a) Write a C++ program which illustrates the use of overloading unary operator minus (-). 9
- OR
- (a) Write a C++ program which illustrates the use of friend function to two classes. 9
- (b) Write a C++ program which illustrates how an object can be created within a function and returned to another function. 9
- OR
- (b) Write a C++ program which illustrates the use of copy constructor. 9
- Q-5 Attempt any two. 14
- (a) What is single inheritance? Explain with example.
- (b) Explain basic concepts of object-oriented programming.
- (c) Explain function overloading with example.
- Q-6 Write short note on following. (Any three) 18
- (a) Parameterized constructors.
- (b) Call by reference.
- (c) Virtual function.
- (d) Inline functions.
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