

March-24-02-1396
B.C.A. Sem. -IV (New Course) Examination
March -2024
Object Oriented Programming using C++

Total Marks : 70

Time : 2½ Hours

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| Que. 1 | A. | Answer the following. | 06 |
| | | 1. List applications of Object Oriented Programming. | |
| | | 2. Give difference between Procedure Oriented and Object Oriented Programming. | |
| | | 3. What is reference variable? Give syntax. | |
| Que. 1 | B. | Answer the following. (Any Two) | 12 |
| | | 1. Explain Enumerated data type in detail with example. | |
| | | 2. Explain basic concepts of Objects Oriented programming. | |
| | | 3. Explain Memory management operators and Manipulators operators with example. | |
| Que. 2 | A. | Answer the following. | 05 |
| | | 1. Explain : call by value and call by reference. | |
| | | 2. Write short notes on Static data member. | |
| Que. 2 | B. | Answer the following. (Any Two) | 12 |
| | | 1. Explain friend functions with syntax and example. Also write rules for friend functions. | |
| | | 2. What is constructor? Explain types of constructors in brief. | |
| | | 3. Explain functions with default arguments with syntax and example. | |
| Que. 3 | A. | Answer the following. | 06 |
| | | 1. What is operator overloading? Give Syntax. | |
| | | 2. What is casting operator function? Give syntax. | |
| | | 3. Write rules for operator overloading. | |
| Que. 3 | B. | Answer the following. (Any Two) | 12 |
| | | 1. Write a program for implementation of binary plus '+' operator using friend function. | |
| | | 2. Explain manipulation of string using operator overloading with example. | |
| | | 3. Explain class to class type conversion with example. | |
| Que. 4 | A. | Answer the following. | 05 |
| | | 1. Define: (i) abstract class (ii) this pointer. | |
| | | 2. Write short notes on access modifiers. | |
| Que. 4 | B. | Answer the following. (Any Two) | 12 |
| | | 1. Explain constructors in derived class with syntax and example. | |
| | | 2. What is virtual function? Write rules for virtual functions. | |
| | | 3. Write a program for multiple inheritance. | |
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March-24-02-1391
B.C.A. Sem. -IV (Old Course) Examination
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Data Structure

Total Marks : 70

Time : 2½ Hours

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| Que. 1 | A. Answer the following.
1. Explain the term Data Structure.
2. Explain Primitive Data Structure.
3. Define: Algorithm and String. | 06 |
| Que. 1 | B. Answer the following. (Any Two)
1. Explain Time and Space efficiency of an algorithm with example.
2. Explain Linear and non-linear data structure in detail.
3. Write an algorithm/program to compare two string. | 12 |
| Que. 2 | A. Answer the following.
1. Explain queue with example.
2. Write short note on linked list. | 05 |
| Que. 2 | B. Answer the following. (Any Two)
1. Write an algorithm for stack operation.
2. Write an algorithm to remove an element from singly linked list.
3. Write an algorithm to implement insert and delete operation on circular queue. | 12 |
| Que. 3 | A. Answer the following.
1. Define: Binary Tree, Graph.
2. Define: Leaf Node, isolated node.
3. Explain AVL Tree. | 06 |
| Que. 3 | B. Answer the following. (Any Two)
1. Create Binary search tree from following data and Find Pre order, Post order and in order traversal. 45,67,12,6,20,55,86,60
2. Explain BFS algorithm with example.
3. Explain the process for deleting node from binary search tree with example. | 12 |
| Que. 4 | A. Answer the following.
1. Define: hashing, collision.
2. Define: hashing functions. | 05 |
| Que. 4 | B. Answer the following. (Any Two)
1. Write an algorithm to sort data using Bubble sort.
2. Explain Binary Search Technique with example.
3. Sort the following data using selection sort 100, 45, 67, 23, 66, 90, 14, 17, 27 | 12 |
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March-24-02-1397
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Building Application Using PHP

Total Marks : 70

Time : 2½ Hours

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| Que. 1 | A. Answer the following.
1. Explain \$_GET super global.
2. Write any two strings handling functions with syntax and example.
3. Explain array sorting functions with example. | 06 |
| Que. 1 | B. Answer the following. (Any Two)
1. Explain any five predefined variable handling functions with syntax and example.
2. Define Scripting language. Explain Client side Vs Server side Web Development.
3. Explain upload a file on server in php with example. | 12 |
| Que. 2 | A. Answer the following.
1. Explain php OOP access modifiers in brief.
2. Explain creating and reading cookie with example. | 05 |
| Que. 2 | B. Answer the following. (Any Two)
1. Explain any six file handling functions with example.
2. Explain constructor and destructor with example.
3. Define: Exception. How to throw an exception? Explain exception handling with example. | 12 |
| Que. 3 | A. Answer the following.
1. Explain Web Services Platform Elements in brief.
2. Write syntax, purpose and example of mysql_select_db ().
3. Write syntax and explain to connect PHP with MySQL. | 06 |
| Que. 3 | B. Answer the following. (Any Two)
1. Explain Web Services Model.
2. Explain inserting records into database and showing all records from database? Explain with example.
3. Explain mysql_query() and mysql_affected_rows() with example. | 12 |
| Que. 4 | A. Answer the following.
1. Explain Advantages of Joomla in brief.
2. Explain Joomla Component Manager and Module manager in brief. | 05 |
| Que. 4 | B. Answer the following. (Any Two)
1. What is Template Manager? How to manage templates using Template Manager?
2. Write steps to create menu in Joomla.
3. Explain Joomla Architecture. | 12 |
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March-24-02-1399
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Data Mining and Data Ware Housing

Total Marks : 70

Time : 2½ Hours

Que. 1	A. Attempt the following. 1. What is motivation of Data Mining? 2. List out Major issues in Data Mining. 3. What is integration of data mining system with data warehouse? 4. List out data mining functionalities. 5. Why should data be processed? 6. What is data reduction?	06
Que. 1	B. Attempt the following. (Any Two) 1. Explain Classification of data mining. 2. Explain data cleansing. 3. Explain Data integration and transformation.	12
Que. 2	A. Attempt the following. 1. What is Data Warehouse? 2. What is Data Generalization? 3. How if OLAP technology used in data warehouse? 4. OLAP stands for _____. 5. What do you mean by mining frequent patterns?	05
Que. 2	B. Attempt the following. (Any Two) 1. Explain Data Warehouse Architecture. 2. Explain Constraints based association mining in detail. 3. Explain various kind of association rule in mining.	12
Que. 3	A. Attempt the following. 1. What is Prediction and classification in data mining? 2. What is cluster analysis in data mining? 3. What is Hierarchical clustering and its types?	06
Que. 3	B. Attempt the following. (Any Two) 1. Explain issues regarding classification and prediction. 2. Explain categories of major clustering method. 3. Explain accuracy and error measures in data mining.	12
Que. 4	A. Attempt the following. 1. What is the mining of the World Wide Web? 2. What do you mean by spatial mining? 3. What are two methods of text mining? 4. What is Multimedia? 5. What is Web mining?	05
Que. 4	B. Attempt the following. (Any Two) 1. Explain Application of data mining. 2. Explain trend in Data Mining. 3. Explain social impact of data mining in detail.	12
