Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CS2035** | **Duration :** | **3hrs** |
| **Sub. Name :** | **Object Oriented Programming in C++** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | | | | **Course outcome** | **Marks** |
| **PART-A (40X1=40 MULTIPLE CHOICE QUESTIONS)** | | | | | | |
| 1. | int main() {  int choice = 49 ;  switch(choice) {  case 1:  cout<<"\nCase -1";  break;  case '1':  cout<<"\nCase -2";  break;  default:  cout<<"Wrong choice";  }  return 0;  }  What is the output for the above code snippet? | | | | CO1 |  |
|  | a. Error | b. Case -2 | c. Case -1 | d.Wrong Choice |  | (1) |
| 2. | int main() {  int i;  for(i=0;i<3;i++);  cout<<i<<endl;  return 0;  }  What is the output for the above code snippet? | | | | CO1 |  |
|  | a. 2 | b. 3 | c. 0,1,2 | d. 0,1,2,3 |  | (1) |
| 3. | int main(){  int a=0;  if(a=0)  cout<< "a is zero";  else  cout<< "a is not zero";  }  What is the output for the above code snippet? | | | | CO1 |  |
|  | a. | b. | c. | d. |  | (1) |
| 4. | The fields in a class of C++ program are by default | | | | CO2 |  |
|  | a. public | b. protected | c. default | d. private |  | (1) |
| 5. | int main(){  int a = 5;  cout<< a>>2;  }  What is the output for the above code snippet? | | | | CO1 |  |
|  | a. compile error | b. 5 | c. 1 | d. -1 |  | (1) |
| 6. | Inline functions are invoked at | | | | CO1 |  |
|  | a. run time | b. execution time | c. compile time | d. debug time |  | (1) |
| 7. | Which of the following correctly declares an array? | | | | CO1 |  |
|  | a. int array[10]; | b.int array; | c.array{10}; | d.array array[10]; |  | (1) |
| 8. | Which of the following gives the memory address of the first element in array? | | | | CO1 |  |
|  | a.array[0]; | b.array[1]; | c.array(2); | d.array; |  | (1) |
| 9. | What will be used when terminating a structure? | | | | CO1 |  |
|  | a. : | b. } | c. ; | d. ~ |  | (1) |
| 10. | What is the output of this program?  #include <iostream>  using namespace std;  int main(){  int arr[] = {4, 5, 6, 7};  int \*p = (arr + 1);  cout << \*p;  return 0;  } | | | | CO2 |  |
|  | a. 4 | b. 5 | c. 6 | d. 7 | CO1 | (1) |
| 11. | Which operator is used for dereferencing or indirection? | | | |  |  |
|  | a. \* | b.& | c. ~ | d.>> |  | (1) |
| 12. | Which of the following is illegal? | | | | CO1 |  |
|  | a. int \*ip; | b.string s, \*sp = 0; | c.int i;  double\* dp = &i; | d.int \*pi = 0; |  | (1) |
| 13. | Where does the execution of the program starts? | | | | CO1 |  |
|  | a. user-defined function | b.main function | c.void function | d.none of the mentioned |  | (1) |
| 14. | Which of the following is used to terminate the function declaration? | | | | CO1 |  |
|  | a. : | b. ; | c. :: | d.>> |  | (1) |
| 15. | What does your class can hold? | | | | CO1 |  |
|  | a. data | b. function | c. both data and function | d. only structure |  | (1) |
| 16. | Which is used to define the member of a class externally? | | | | CO1 |  |
|  | a. # | b. :: | c. : | d.-> |  | (1) |
| 17. | The fields in the class in c++ program are by default | | | | CO3 |  |
|  | a. public | b. private | c. protected | d. static |  | (1) |
| 18. | Constructors are used to | | | | CO1 |  |
|  | a. initalise the objects | b.construct the data members | c. both a and b | d. None of the mentioned |  | (1) |
| 19. | Which of the following operators cannot be overloaded? | | | | CO2 |  |
|  | a. :: | b. + | c. \* | d.>= |  | (1) |
| 20. | Where can the default parameter be placed by the user? | | | | CO3 |  |
|  | a. leftmost | b. rightmost | c. both a and b | d. None of the mentioned |  | (1) |

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| 21. | Which value will it take when both user and default values are given? | | | | CO1 |  |
|  | a. user value | b. default value | c. zero | d. difference of both |  | (1) |
| 22. | Which keyword is used to declare the friend function? | | | | CO4 |  |
|  | a. firend | b.friend | c.classfriend | d.myfriend |  | (1) |
| 23. | How many types of inheritance are there in c++? | | | | CO2 |  |
|  | a. 2 | b. 3 | c. 4 | d. 5 |  | (1) |
| 24. | Function overloading is also similar to which of the following? | | | | CO2 |  |
|  | a.operator overloading | b.constructor overloading | c.destructor overloading | d. object overloading |  | (1) |
| 25. | Which keyword can be used in template? | | | | CO4 |  |
|  | a. class | b.typename | c.both a & b | d.function |  | (1) |
| 26. | int main(){  String str(“Object Oriented”);  String str1 = “C++”;  str = str + str1;  str.erase(0,6);  cout<<str.length();  return 0;  }  What is the output for the above code snippet? | | | | CO2 |  |
|  | a. 10 | b. 11 | c. 12 | d. 13 |  | (1) |
| 27. | int main(){  int a = 5, b = 10, c = 15;  int \*arr[] = {&a, &b, &c};  cout<<\*arr[1];  return 0;  }  What is the output for the above code snippet? | | | | CO1 |  |
|  | a. compile error | b. displays the address | c. 10 | d. 5 |  | (1) |
| 28. | Which one is the pointer implementation to access an array element a[2], if the array ‘a’ is one dimensional? | | | | CO1 |  |
|  | a. \*(a+2) | b. \*(a[0] + 2) | c. (\*a+2) | d. \*(a+1) |  | (1) |
| 29. | int main() { int a[][3] = { {1,2,3}, {4,5,6}};  cout<<\*a[0];  return 0;  }  What is the output of the above code snippet? | | | | CO1 |  |
|  | a. 1 | b. 2 | c. 3 | d. 4 |  | (1) |
| 30. | Assume a class *Derv*that is privately derived from class *Base*. An object of class *Derv* located in *main()* can access\_\_\_\_\_\_\_\_\_\_\_ | | | | CO2 |  |
|  | a. public members of Derv | b.private memebrs of Derv | c. public members of Base | d. private members of Base |  | (1) |
| 31. | Which of the following supports polymorphism. | | | | CO2 |  |
|  | a. functions | b. structures | c. operator overloading | d. reference variables |  | (1) |
| 32. | The class which has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is called abstract class. | | | | CO2 |  |
|  | a. virtual function | b. pure virtual function | c. static function | d. friend function |  | (1) |
| 33. | Friend functions are used in a situation where | | | | CO5 |  |
|  | a. we want to have access to related classes | b.dynamic binding is required | c. we want to exchange data between classes | d. we want to create overloaded operators |  | (1) |
| 34. | Which operator is used to insert the data into file? | | | | CO5 |  |
|  | a. < | b.>> | c.<< | d.> |  | (1) |
| 35. | Which function is used to position back from the end of file object? | | | | CO5 |  |
|  | a. seek | b. seekg | c. seekp | d.position(end) |  | (1) |
| 36. | Which function can be used to input a string with blankspace? | | | | CO3 |  |
|  | a. getlines() | b. inline() | c. getline() | d. get() |  | (1) |
| 37. | cin is an object of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ class | | | | CO2 |  |
|  | a. ofstream | b. ostream | c. ifstream | d.istream |  | (1) |
| 38. | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operator is used to deallocatethe memory. | | | | CO4 |  |
|  | a. deallocate | b. del | c. remove | d. delete |  | (1) |
| 39. | eof() is the function used to | | | | CO5 |  |
|  | a.check end of file | b. check and of word | c. check end of dictionary | d. none of these |  | (1) |
| 40. | The flag bit which will set upon a correct input is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | CO5 |  |
|  | a. good bit | b. bad bit | c. correct bit | d. flag bit |  | (1) |

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| **PART B(8 X 5 = 40 MARKS) (ANSWER ANY EIGHT)** | | | |
| 41. | List the various categories of operators and detail about bitwise operators only. | CO1 | (5) |
| 42. | Discuss about multilevel inheritance and multiple inheritance with appropriate example. | CO2 | (5) |
| 43. | Differentiate class and structure in C++. | CO2 | (5) |
| 44. | Write a program in C++ demonstrate the use of default arguments in functions. | CO2 | (5) |
| 45. | Discuss on various storage classes. | CO3 | (5) |
| 46. | Differentiate function overloading and function overriding with appropriate example. | CO2 | (5) |
| 47. | Write a C++ program to implement the push operations in a Stack by overloading the ‘+’ operator. | CO4 | (5) |
| 48. | An array contains values range from 51 to 60. Access this array using a pointer and store all the even numbers in an array named ‘even’. | CO2 | (5) |
| 49. | Write a program that has a function divide() that takes two arguments, dividend and divisor respectively. If the divisior is zero, throw an user define exception called ArithmeticException and handle the exception in the main method, where yoou invoke divide(). | CO5 | (5) |
| 50. | You have a file named “sample.txt”, and the content of the file is “I Love Programming”. Write a C++ program to read the content from the file and display the same. | CO5 | (5) |
| **PART C( 2 X 10 = 20 MARKS) (ANSWER ANY TWO)** | | | |
| 51. | Discuss on the object oriented priciples. | CO1 | (10) |
| 52. | Discuaa about the various control statements in c++ with proper example. | CO1 | (10) |
| 53. | Write a C++ program to implement the concept of virtual function. Create a class named shape with a pure virtual functioncalled area().Create derived classes circle, rectangle and triangleand calculate the area of each shapes. Create a main method and access all the sub class object with the base class pointer to display the area of every shapes. | CO5 | (10) |

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