



KINGS

COLLEGE OF ENGINEERING



DEPARTMENT OF INFORMATION TECHNOLOGY
QUESTION BANK

Subject Code: CS1203

Subject Name: Object Oriented Programming

Year/Sem:II/III

UNIT-I
FUNDAMENTALS
PART-A(2 MARKS)

- 1) Write any four features of OOPS.
- 2) What are the Basic concepts of OOS?
- 3) Define objects.
- 4) Define class.
- 5) Give any four advantages of OOPS.
- 6) Give any four applications of OOPS.
- 7) Give any four applications of c++.
- 8) Define tokens.
- 9) What is keyword?
- 10) Rules for naming the identifiers in C++.
- 11) What is a scope resolution operator?
- 12) What do you mean by enumerated data type?
- 13) What are symbolic constants?
- 14) What do you mean by dynamic initialization of variables?
- 15) What are reference variable?
- 16) What is member-dereferencing operator?
- 17) What is function prototype?
- 18) What is an inline function?
- 19) Write some situations where inline expansion may not work.
- 20) What is a default argument?
- 21) What are the constant arguments?
- 22) What is call- by- reference?

PART-B (16 MARKS)

- 1) Explain with the Basic Concepts of object oriented programming.
- 2) (a) Explain the elements of object oriented programming. (8)
(b) What are the difference between reference variables and normal variables? Why cannot a constant value be initialized to variables of reference type? (8)
- 3) Explain about call-by-reference and pointer types with program.
- 4) (a) Describe the advantages of OOP. (8)
(b) What are the difference between pointers to constants and constant to pointers? (8)
- 5) (a) Describe the applications of OOP technology. (8)
(b) What is function invocation? Explain briefly with program. (8)
- 6) (a) Explain the merits and demerits of object oriented methodology. (8)
(b) Write notes on Standard Template Library. (8)

UNIT-II

IMPLEMENTING ADTs & ENCAPSULATION

PART-A(2MARKS)

- 1) What is an encapsulation?
- 2) What is static data member?
- 3) What is static member function?
- 4) How the objects are used as function argument?
- 5) Define const member.
- 6) Define pointers to member.
- 7) Define constructor.
- 8) Define default constructor.
- 9) Define parameterized constructor.
- 10) Define default argument constructor.
- 11) What is the ambiguity between default constructor and default argument constructor?
- 12) Define copy constructor.
- 13) Define dynamic constructor.
- 14) Define const object.
- 15) Define destructor.
- 16) Define multiple constructors.
- 17) Write some special characteristics of constructor.
- 18) How the objects are initialized dynamically?

- 19) Difference between structure and union.
- 20) Define Bit Fields

PART-B (16 MARKS)

- 1) Explain copy constructor and destructor with suitable C++ coding.
- 2) Explain about structure pointer operator and unions with program.
- 3) Explain about Implementation of simple ADTs.
- 4) Explain about static member and this pointer with suitable code.
- 5) What is a Bit field? Explain briefly.
- 6) Explain about Data Handling and member function.

UNIT-III
POLYMORPHISM
PART-A (2MARKS)

- 1) What is polymorphism? What are its types?
- 2) What is operator overloading?
- 3) What is function overloading? Give an example.
- 4) List out the operators that cannot be overloaded.
- 5) What is the purpose of using operator function? Write its syntax.
- 6) Write at least four rules for Operator overloading.
- 7) How will you overload Unary & Binary operator using member functions?
- 8) How will you overload Unary and Binary operator using Friend functions?
- 9) How an overloaded operator can be invoked using member functions?
- 10) How an overloaded operator can be invoked using Friend functions?
- 11) List out the operators that cannot be overloaded using Friend function.
- 12) What is meant by casting operator and write the general form of overloaded casting operator?
- 13) What is overloaded function selection algorithm?
- 14) What is meant by pointer operators?
- 15) Define ADTs.

PART-B (16 MARKS)

- 1) Explain about Unary Operator and Binary Operator Overloading with program.
- 2) Define the polymorphism. Explain the different types of polymorphism.
- 3) List out the rules for overloading operators with example.
- 4) Write Notes on ADT Conversions.

- 5) Explain about Function selection with program.
- 6) Explain about pointer operator with program.

UNIT-IV
INHERITANCE
PART-A (2MARKS)

- 1) Define basic to class type conversion with an example.
- 2) Define class to basic type conversion with an example.
- 3) Define one class to another class conversion with an example.
- 4) What is meant by inheritance?
- 5) What is meant by single inheritance?
- 6) What is multiple inheritances?
- 7) What is hierarchical inheritance?
- 8) What is multilevel inheritance?
- 9) What is hybrid inheritance?
- 10) What is meant by Abstract base class?
- 11) Write short notes on virtual base class.
- 12) What are Friend functions? Write the syntax
- 13) Write some properties of friend functions.
- 13) What are the virtual functions?
- 14) Write some of the basic rules for virtual functions
- 15) What are pure virtual functions? Write the syntax.
- 16) What is an Exception?
- 17) Give any rules for Virtual Functions.
- 18) What is Visibility mode?

PART-B (16 MARKS)

- 1) What are the virtual functions? Explain their needs using a suitable example. What are the rules associated with virtual functions?
- 2) What are the different forms of inheritance supported in c++? Discuss on the visibility of base class members in privately and publicly inherited classes.
- 3) What are abstract classes? Give an example (with the program) to illustrate the use of abstract classes.
- 4) (a) Explain about Code Reuse with program. (8)

- (b) Discuss about Run Time Type Identifications. (8)
- 5) Write notes on Typing conversions and derived class with program.
- 6) Explain about Exceptions Handlers and Standard Exceptions.

UNIT-V
TEMPLATES & FILE HANDLING
PART-A(2MARKS)

- 1) Define Streams.
- 2) What are the input and output streams?
- 3) Classify the streams.
- 4) Difference between get (), put ().
- 5) How to open and close a file?
- 6) Write some file opening modes.
- 7) What is a file pointer?
- 8) What is command-line argument?
- 9) What is an error and error handling functions?
- 10) How will you create manipulators?
- 11) Write the syntax and use of getline () and write () functions.
- 12) Give two types of template.
- 13) Define try and catch.
- 14) Define Exception handling.
- 15) Define File modes.
- 16) Give the general syntax for throw.

PART-B(16 MARKS)

- 1) Explain about Template and its types with example.
- 2) Discuss about Streams and stream classes
- 3) Write notes on Formatted and Unformatted Console I/O Operations.
- 4) Explain about File Pointers and Manipulations with example.
- 5) Discuss about manipulators and file streams with Program.
- 6) Write on Details about File modes and File I/O.
- 7) Details for Exception Handling with Program.