23SSP206/ 22SSP208

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc(SS) DEGREE EXAMINATION MAY 2024
(Second Semester)

Branch - **SOFTWARE SYSTEMS**

OBJECT ORIENTED PROGRAMMING WITH C++

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Who invented OOP? a) Andrea Ferro b) Adele Goldberg c) Alan Kay d) Dennis Ritchie	K1	CO1
	2	Which was the first purely object oriented programming language developed? a) Kotlin b) SmallTalk c) Java d) C++	K2	CO1
2	3	Which of the following is the default return value of functions in C++? a) int b) char c) float d) void	K1	CO2
	4	An inline function is expanded during _____. a) compile-time b) run-time c) never expanded d) end of the program	K2	CO2
3	5	Which of the following gets called when an object is being created? a) Constructor b) Virtual Function c) Destructors d) Main	K1	CO3
	6	Destructor has a same name as the constructor and it is preceded by? a) ! b) ? c) ~ d) $	K2	CO3
4	7	What is Inheritance in C++? a) Wrapping of data into a single class b) Deriving new classes from existing classes c) Overloading of classes d) Classes with same names	K1	CO4
	8	How many specifiers are used to derive a class? a) 1 b) 2 c) 3 d) 4	K2	CO4
5	9	What is an exception in C++ program? a) A problem that arises during the execution of a program b) A problem that arises during compilation c) Also known as the syntax error d) Also known as semantic error	K1	CO5
	10	Why do we need to handle exceptions? a) To avoid unexpected behavior of a program during run-time b) To let compiler remove all exceptions by itself c) To successfully compile the program d) To get correct output	K2	CO5

Cont ...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Illustrate software evaluation with neat diagram.	K4	CO1
		(OR)		
	11.b.	Examine object oriented programming paradigm.		
2	12.a.	Enumerate friend and virtual functions. Explain with proper example.	K5	CO2
		(OR)		
	12.b.	Elucidate memory allocation for objects.		
3	13.a.	Determine parameterized constructor with suitable example.	K4	CO3
		(OR)		
	13.b.	Illustrate multiple constructors in a class with example.		
4	14.a.	Develop a C++ program to create student database using single inheritance.	K5	CO4
		(OR)		
	14.b.	Examine nesting of classes with example.		
5	15.a.	Analyze on basic concepts of polymorphism.	K4	CO5
		(OR)		
	15.b.	Elucidate the types of polymorphism.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain about the operators in C++ with suitable example.	K4	CO1
2	17	What is function? Enumerate friend function with suitable example.	K5	CO2
3	18	What is destructor? Explain about destructor overloading with example.	K4	CO3
4	19	What is inheritance? Examine hierarchal inheritance with example.	K5	CO4
5	20	Determine compile and runtime polymorphism. Explain with suitable example.	K4	CO5

Z-Z-Z END