LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

SECOND SEMESTER – **APRIL 2023**

UCS 2501 – OBJECT ORIENTED PROGRAMMING USING C++

Date: 03-05-2023 Dept. No. Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

	SECTION A - K1 (CO1)
	Answer ALL the Questions **(10 x 1 = 10)**
1.	**Answer the following**
a)	Define identifiers
b)	Write the syntax to define a function outside a class
c)	List any two features of constructor.
d)	Define inheritance
e)	List the ios format functions
2.	**MCQ**
a)	Representing the essential features without including the background details is referred to as ___ i. Encapsulation ii. Abstraction iii. Polymorphism iv. Data hiding
b)	The function used to access the private member of a class is _____ i. Virtual function ii. Friend function iii. Inline function iv. Member function
c)	Which of the following is not a unary operator? i. ++ ii. + iii. -- iv. None
d)	The operator used to access the value of a variable indirectly is ___ i. & ii. * iii. → iv. #
e)	Which of the following is not a file mode parameter? i. ios::app ii. ios::ate iii. ios::binary iv. ios::bin 2
	SECTION A - K2 (CO1)
	Answer ALL the Questions **(10 x 1 = 10)**
3.	**Fill in the blanks**
a)	_____ is the smallest individual unit in a program.
b)	_____ are the basic run time entities in object oriented system
c)	____ is a special member function whose task is to initialize the objects.
d)	_____ is the important feature of inheritance.

e)	_____ is a block of statements which may generate an exception.
4.	**True or False**
a)	Object oriented programming follows Bottom up approach in program design.
b)	The : operator used to define the function outside the class
c)	Constructors have no return types.
d)	A class can inherit the attributes of more than one class..
e)	tellg gives the current position of the get pointer.
	SECTION B - K3 (CO2)
	Answer any TWO of the following in 100 words (2 x 10 = 20)
5.	Explain the basic concepts of OOPs.
6.	Illustrate the use of friend function with an example
7.	Explain virtual function with example.
8.	Illustrate the different modes of operations of file.
	SECTION C – K4 (CO3)
	Answer any TWO of the following in 100 words (2 x 10 = 20)
9.	Explain the following with example a. Array of objects b. Pointers to objects.
10.	Explain the unary operator overloading with suitable example.
11.	Explain the use of manipulators in formatting the output.
12.	Explain the basic operations on file.
	SECTION D – K5 (CO4)
	Answer any ONE of the following in 250 words (1 x 20 = 20)
13.	Explain the following with example. a. Constructor and destructor(6 marks) b. Parameterized constructor(6 marks) c. Constructor overloading(8 marks) .
14.	Summarize any four inheritance with example for each(4 x 5 marks)
	SECTION E – K6 (CO5)
	Answer any ONE of the following in 250 words (1 x 20 = 20)
15.	Express the looping statements with example for each.
16.	Summarize exception handling with an example.

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