Reg. No.:					

**Question Paper Code: 43804** 

## B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Third Semester

Information Technology

## 14UIT304 - OBJECT ORIENTED PROGRAMMING

(Common to Computer Science and Engineering)

(Regulation 2014)

Duration: Three hours Maximum: 100 Marks

**Answer ALL Questions** 

PART A -  $(10 \times 1 = 10 \text{ Marks})$ 

- 1. Which of the following is correct about class and structure?
  - (a) Class can have member functions while structure cannot
  - (b) Class data members are public by default while that of structure are private
  - (c) Pointer to structure or classes cannot be declared
  - (d) Class data members are private by default while that of structure are public by Default.
- 2. Which of the following are available only in the class hierarchy chain?
  - (a) Public data members

(b) Private data members

(c) Protected data members

(d) Member functions

3. Which of the following operators cannot be overloaded?

(a) +

(b) <

(c) ::

(d) =

4. Constructor is executed when

(a) an object is created

(b) an object is used

(c) a class is declared

(d) an object goes out of scope

5.	The class which do not have static data members are known as							
	(a) simple class	(b) template class	(c) local class	(d) formal class				
6.	What is a template?							
	(b) A template is u	formula for creating a g sed to manipulate the cl sed for creating the attri ove mentioned	lass					
7.	Which of the following	g mechanism refers to s	static binding?					
	<ul><li>(a) templates</li><li>(c) operator overlo</li></ul>	` '	<ul><li>(b) function overloading</li><li>(d) all the above</li></ul>					
8. How many instances of an abstract class can be created?								
	(a)1	(b) 5	(c) 13	(d) 0				
9. Which header file is used for reading and writing to a file?								
	<ul><li>(a) #include<iostre< li=""><li>(c) #include<file></file></li></iostre<></li></ul>		<ul><li>(b) #include<fstream></fstream></li><li>(d) #include<conio></conio></li></ul>					
10.	0. Choose the correct option which gives the current position of get pointer in a file.							
	(a) seekg()	(b) seekp()	(c) tellg()	(d) tellp()				
		PART - B (5 x 2	= 10 Marks)					
11.	What is inline function	? Give an example.						
12.	2. Define the terms realloc() and free().							
13.	13. What is the use of terminate and unexpected functions? When they are called?							
14.	Differentiate cross cast	ing and down casting.						
15.	List the applications of	OOPs.						
PART - C (5 x $16 = 80 \text{ Marks}$ )								
16.	(a) Explain the basic c	oncepts of object orient	ted programming.		(16)			

Or

	(b)	(1)	what is friend function? What is the use of using friend functions in $c++?$ I with a program.	Explain (8)
		(ii)	What are the relationships between outer and inner classes? Give an example	. (8)
17.	(a)	(i)	Explain '+' operator overloading with an example.	(8)
		(ii)	Explain type conversion with suitable example.	(8)
			Or	
	(b)		at are the characteristics of constructor functions? Explain the various ty estructors and destructors. Illustrate with example program.	ypes of (16)
18.	(a)	(i)	What is a class template? Explain the syntax of a class template. Perform pupop operation of a stack using class template.	ush and (10)
		(ii)	Briefly explain uncaught exception with an example.	(6)
			Or	
	(b)	Apj	ply various mechanisms used in exception handling with suitable examples.	(16)
19.	(a)	(i)	Write a C++ program to calculate the square and cube of a given number using multilevel inheritance.	ng (12)
		(ii)	Give the rules for using virtual functions.	(4)
			Or	
	(b)	Dis	cuss the different types of inheritance supported in C++ with suitable illus	tration. (16)
20.	(a)		at are manipulators? Explain in detail about various manipulators used for Inpout operations with an example.	out (16)
			Or	
	(b)	(i)	Write a program	
			(1) To reverse a string	(4)
			(2) Count the number of characters in the string	(4)
		(ii)	Write a C++ Program for writing and reading a file.	(8)