Q. Code:187644

Reg. No. | | | | | | | | | | | | | |

B.E/B.TECH. DEGREE EXAMINATIONS, MAY 2024

Second Semester

CS18202- OBJECT ORIENTED PROGRAMMING

(Computer Science and Engineering)

(Regulation 2018 & 2018A)

TIME: 3 HOURS **MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Students will be able to interpret the concepts of data abstraction, encapsulation and inheritance for problem solutions.	**2**
CO 2	Students will be able to examine the problem and infer Object Oriented Concepts for practical problem solving.	**3**
CO 3	Students will be able to appraise generic data type for the data type independent programming which relate it to Reusability.	**3**
CO 4	Students will be able to interpret and design the Exception Handling Techniques for resolving run-time errors.	**3**
CO 5	Students will be able to practice file I/O for large data set	**3**

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	Assess the need of Static Member in C++.	**1**	**2**
2.	What is the function parameter? Mention the difference between parameter and argument.	**1**	**2**
3.	Interpret how you allocate and unallocated an array of things.	**2**	**3**
4.	Give the operator in C++ which cannot be overloaded.	**2**	**2**
5.	Recall the term inheritance.	**3**	**2**
6.	Give the visibility of base class members in derived class.	**3**	**2**
7.	Write a C++ program to find sum of three integer float number using template class.	**4**	**3**
8.	Compare and contrast error and exception.	**4**	**3**

9.	Inscribe the default actions on file pointers while opening a file.	**5**	**2**	
10.	List down the C++ functions to manipulate file pointers.	**5**	**2**	

PART- B (5 x 14 = 70 Marks)

			Marks	CO	RBT LEVEL
11. (a)	Infer the basic concepts of Object-Oriented Programming with an example.		**(14)**	**1**	**2**
	(OR)				
(b)	**(i)**	Outline a C++ program to declare a structure employee with member as empid and empname. Accept and display data for one employee using structure variable.	**(7)**	**1**	**2**
	(ii)	Illustrate a C++ program to accept array of five elements, find and display smallest number from an array.	**(7)**	**1**	**2**
12. (a)	Differentiate between constructor and destructor. Write a C++ program to declare a class addition with data members as x and y. Initialize value of x and y with constructor. Calculate addition and display it using function 'display'.		**(14)**	**2**	**3**
	(OR)				
(b)	Specify a class called complex to represent complex numbers. Overload +, - and * operators when working on the object of this class.		**(14)**	**2**	**3**
13. (a)	Classify the various types of Inheritance in C++ with suitable program for each.		**(14)**	**3**	**3**
	(OR)				
(b)	Define polymorphism. Build a C++ program to demonstrate pure virtual function with the use of base and derived classes.		**(14)**	**3**	**3**
14. (a)	Explore Function template and Class template with detailed example.		**(14)**	**4**	**3**
	(OR)				
(b)	Appraise the various Exception handling mechanism in detail.		**(14)**	**4**	**3**
15. (a)	Explain in brief on various functions required for random access file operations. Give an example.		**(14)**	**5**	**3**
	(OR)				
(b)	Compare the opening a file with constructor function and opening a file		**(14)**	**5**	**3**

with open ( ) function . Elaborate the name with suitable example.

PART- C (1 x 10 = 10 Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Elaborate the need of friend function. List down the merits and demerits of using the friend function in C++.	**(10)**	**1**	**5**

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