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BTECH
(SEM VI) THEORY EXAMINATION 2021-22
OBJECT ORIENTED PROGRAMMING

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If you require any missing data, then choose suitably.**SECTION A****1. Attempt all questions in brief.****2*10 = 20**

Q.no	Questions	Marks	CO
(a)	Define Object Oriented Programming.	2	1
(b)	Briefly define Encapsulation.	2	1
(c)	Define Classes under the Basic Structural Modeling.	2	2
(d)	Discuss about the Object Diagrams.	2	2
(e)	Briefly discuss about the Object Oriented Analysis.	2	3
(f)	What do you mean by Physical packaging?	2	3
(g)	What is the use of Scope resolution operator?	2	4
(h)	Define identifiers.	2	4
(i)	What do you understand by the Private and public members.	2	5
(j)	Discuss constructors and their types.	2	5

SECTION B**2. Attempt any three of the following:****10*3 = 30**

Q.no	Questions	Marks	CO
(a)	Explain in detail about the concept, its types and application of Inheritance.	10	5
(b)	Write short notes on the following: (i) C++ streams (ii) Class Templates	10	2
(c)	Differentiate between Object Oriented Programming and Procedural Programming? Write a program in C++ by creating a class of integers and write a function that prints all the Prime numbers from the class.	10	3
(d)	Describe events and states. How is a state diagram prepared? Explain by suitable examples.	10	4
(e)	Define UML. Draw a UML diagram for the automation of training and placement office of any college. Make suitable assumptions if required and explain them clearly.	10	1

SECTION C**3. Attempt any one part of the following:****10*1 = 10**

Q.no	Questions	Marks	CO
(a)	What is Operator overloading? Discuss with the help of an example.	10	5
(b)	Explain about the Jackson Structured Development (JSD) in Object Oriented Analysis.	10	2



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4. Attempt any *one* part of the following: 10 *1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about the Object identity and Information hiding under the Object Oriented Programming.	10	1
(b)	Discuss about the concept of Passing arguments to methods using a suitable example.	10	3

5. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	What do you mean by Exceptions? Explain with suitable examples.	10	4
(b)	Explain in detail about the concept, types and application of Polymorphism.	10	5

6. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe the concept of Use cases, Use case Diagrams and Activity Diagrams in Basic Structural Modeling.	10	2
(b)	What is the difference between link and association? Draw an object diagram to explain.	10	1

7. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Briefly discuss the following. (i) Reusability (ii) Extensibility (ii) Robustness (iv) Abstraction	10	3
(b)	Write a program in C++ to differentiate between function overloading and function overriding.	10	4