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PAPER ID-310131

Roll No: | | | | | | | | | | | | | |

B. TECH.
(SEM V) THEORY EXAMINATION 2020-21
OBJECT ORIENTED TECHNIQUES

Time: 3 Hours   *Total Marks: 70*

Note: **1.** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.	**Attempt** *all* **questions in brief.**	**2 x 7 = 14**
a.		
b.	ıg.	
c.	Explain Polymorphism with suitable example.	
d.	What is the basic architecture of UML?	
e.	What is the use of abstract class?	
f.	Differentiate between association and aggregation and relationship among the classes.	
g.	What is the use of typedef?	

SECTION B

2.	**Attempt any** *three* **of the following:**	**7 x 3 = 21**
a.	Design a Use case diagram for Restaurant.	
b.	Explain terms and concepts of sequence diagram.	
c.	Explain Jackson Structured Development (JSD) in detail.	
d.	Discuss Inline function with suitable example.what is the difference between macros and Inline function.	
e.	Explain type casting in C++ and discuss its types also.	

SECTION C

3.	**Attempt any** *one* **part of the following:**	**7 x 1 = 7**
(a)	Define Polymorphism. Is this concept only applicable to object oriented system? Explain.	
(b)	Describe the relation of functional model, object model and dynamic model. What relationship and difference is between object oriented design (OOD) and object oriented analysis (OOA).	

4.	**Attempt any** *one* **part of the following:**	**7 x 1 = 7**
(a)	Explain Deployment diagram. What is the difference between components and nodes?	
(b)	Design a sequence diagram for ATM transaction.	

5.	**Attempt any** *one* **part of the following:**	**7 x 1 = 7**
(a)	Explain Structure Analysis and Structure Design (SA/SD) and Jackson Structured Development (JSD) in detail.	
(b)	Differentiate between procedural and object oriented approach. Explain Encapsulation with example.	

6.	**Attempt any** *one* **part of the following:**	**7 x 1 = 7**
(a)	What do you mean by operator overloading? Explain the pitfalls of operator overloading.	
(b)	What is abstraction? Explain abstract method and abstract class. Write a C++ program for employee class where salary as an abstract method with full implementation.	

7.	**Attempt any** *one* **part of the following:**	**7 x 1 = 7**
(a)	What is Constructor? How a constructor overloading does differs from methods overloading?	
(b)	What is Inheritance? What is the need of inheritance in object oriented programming. Describe inheritance types with suitable example.	