A21-08125

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, APRIL-2021

OBJECT ORIENTED PROGRAMMING THROUGH C++

[Maximum marks: 75]		Time: 2.15	Hours)
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PART – A

- I (Answer any *three* questions in one or two sentences. Each question carries 2 marks)
 - 1. Write the manipulators used in C++ for line feed and field width.
 - 2. Define constructor.
 - 3. Define single inheritance.
 - 4. List the keywords used in Exception handling mechanism in C++.
 - 5. Write the syntax of function prototyping.

 $(3 \times 2 = 6)$

PART - B

II (Answer any *four* of the following questions. Each question carries 6 marks)

- 1. Explain with example Structures as Heterogeneous Aggregates.
- 2. Explain built-in data types in C++.
- 3. Differentiate between call by value and call by reference.
- 4. Explain with example how member functions are defined outside the class.
- 5. Describe with example base class and derived class.
- 6. Describe the limitations of operator overloading.
- 7. Explain Virtual functions with example.

 $(4 \times 6 = 24)$

PART - C

(Answer any of the three units from the following. Each full question carries 15 marks)

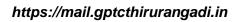
UNIT-I

III. (a) Explain different looping statements in C++ with examples.

(9)

(b) Write a C++ program to find the reverse of a number.

(6)





OR

IV. (a) Explain any three storage classes in C++		
(b) Write a C++ program to check whether a given number is negative or positive	(6)	
UNIT-II		
V. (a) Create a class Time that will have data members to store the time in hours, minutes and	l	
seconds and member functions to calculate the addition of two given time values. Writ	e a	
C++ program to display the result in Hours: Minutes: Seconds .	(10)	
(b) Explain about Destructors in C++.	(5)	
OR		
VI. (a) Explain different types of Constructors in C++ with example		
(b) Explain inline function with example	(6)	
UNIT-III		
VII.(a) With example explain different types of inheritance supported by C++.		
(b) Define operator overloading. Write a C++ program to overload unary operator.	(6)	
OR		
VIII.(a) Write a C++ program to overload relational operator(= =) to compare two strings.	(9)	
(b) Explain visibility controls in C++	(6)	
UNIT-IV		
IX. (a) Explain exception handling in C++.		
(b) Explain class template with example.	(7)	
OR		
X. (a) Explain function template with example.	(8)	
(b) Explain pure virtual function with example.	(7)	
