G. H. Raisoni College of Engineering and Management, Pune.
(An Autonomous Institution)
S.Y B. Tech (Com/IT) (Term-III)
ESE WINTER-2020 (2019/2016 Pattern)
Object Oriented Programming (BCOL19202)

[Time: 3Hour]
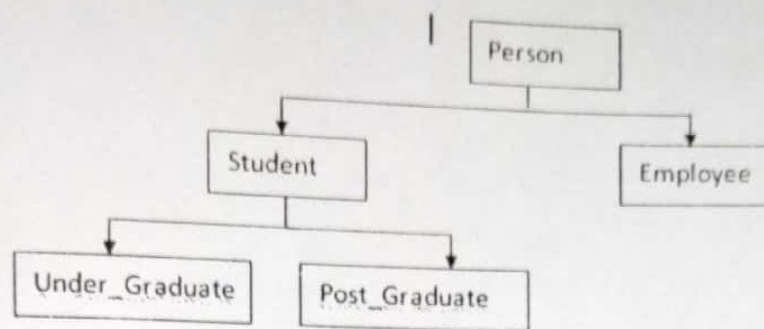
[Max. Marks-60]

COURSE OUTCOMES:
1. Describe the fundamental principles of Object oriented programming.
2. Understand and implement appropriate methods to solve a problem.
3. Adapt the various strengths of object oriented programming concepts to develop suitable application.
4. Analyze and Design solution for real world problems using object oriented concepts.

Instructions to the candidates:
1) At the beginning of question/sub question indicates the course outcome related to the question.
2) All questions compulsory.
3) All questions carry equal marks.
4) Assume suitable data, if necessary.

CO1: a)	Explain the basic features of Object Oriented Programming in detail (Any five)	[5]
b)	Define Constructor. Explain various types of Constructor with suitable example	[5]
c)	Explain the concept of function overloading and operator overloading with example	[5]
CO2: a)	What id Data Encapsulation? Explain how Encapsulation is achieved in the C++ with example	[5]
b)	Define Polymorphism? Differentiate the types of polymorphism in detail	[5]
c)	What is Inheritance? Explain various Types of Inheritance in detail with suitable example	[5]
CO3: a)	Write a program for Music_player_system application by using suitable Object Oriented Programming Concepts. The class must contain the following function 　　1. Create_List 　　2. Insert_Song 　　3. Display_SongList	[5]

b) Write a program to implement following type of Inheritance [5]

c) What is Exception Handling? Explain the difference between Error and Exception. [5]
Write a CPPC program for Array out of Bound Exception

CO4: a) Implement a Library system with suitable data members having three functions as [5]
i. Book_details
ii. Students_details
iii. Employee_details

b) Create a class which will accept the student full name by user. [5]
Declare two methods
i. Calculate_Length()
ii. Reverse_name()
(Note: Function should define oust side of the class)

c) Explain minimum how many functions are there in any Object Oriented Program? What is the need of function in OOP? Differentiate Function Types in detail [5]

OR

d) What is template? Write a program to find Largest number amongst three nos. using template [5]

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