Printed Pages: NBC-402

PAPER ID

(Following Paper ID and Roll No. to be filled in your Answer Books)

M.C.A. (DUAL DEGREE)

Theory Examination (Semester-IV) 2015-16

OBJECT ORIENTED PROGRAMMING USING C++

Time: 3 Hours Max. Marks: 100

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SECTION-A

Q1: Attempt ALL of the following:

 $(10 \times 2 = 20)$

- a) What do you mean by Polymorphism?
- **b)** What is Object Oriented Approach?
- c) Discuss the difference between C and C⁺⁺.
- d) Define Applet.
- e) What is operator overloading?
- f) How event handling is done in JAVA?
- g) What do you mean by hybrid inheritance?
- h) Define concept of Object & Class.
- i) Define aggregation.
- j) Enlist the operators that can not be overloaded.

SECTION-B

Q2: Attempt any FIVE of the following:

 $(5 \times 10 = 50)$

- a) What are events and states in dynamic modeling? Explain with example.
- **b)** Explain call by value? Write a program to explain how parameters are passed in a java Program in call by value method.
- **c**) What do you mean by states? Explain the difference between states and events with proper example.
- d) Discuss dynam Man My Mocatton tunotes.com
- e) Explain access control. What is abstract class?
- **f**) Compare overloading and overriding with examples.
- **g**) Explain stream classes and give stream classes for console operation. What is the difference between opening a file with constructor function and opening a file with open() function.

h) What is runtime polymorphism? Write a program to illustrate the concept of parameterized constructor.

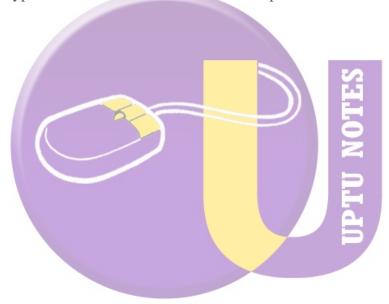
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SECTION-C

Note: Attempt any TWO of the following: $(2\times15=30)$

- Q3 (a) What is exception handling? How are exceptions handled in c^{++} .
 - **(b)** What is constructor? Explain different types of constructor.
- Q4 (a) Explain the use of interface class with an example.
 - **(b)** What is multithreading? Explain Thread life cycle.

Q5 Explain different types of inheritance with suitable example.



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