

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING – SEMESTER – IV-EXAMINATION – WINTER 2015**

**Subject Code: 3341602****Date: 12/12/2015****Subject Name: Object Oriented Programming****Time: 02:30 PM TO 5:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. દશમાંથી કોઇપણ સાતના જવાબ આપો. **14**
1. Define Object Oriented Programming.
  ૧. Object Oriented Programming ને દર્શાવો.
  2. List out applications of Object Oriented Programming.
  ૨. Object Oriented Programming applications ની યાદી આપો.
  3. What is use of abstract class?
  ૩. Abstract class નો ઉપયોગ શું છે?
  4. What is meant by 'this' pointer?
  ૪. 'this' pointer નો અર્થ શું છે ?
  5. Types of casting.
  ૫. Casting ની પ્રકાર.
  6. What is an inline function?
  ૬. Inline function શું છે?
  7. Define class and object.
  ૭. Class અને object દર્શાવો.
  8. Define parameterized constructor.
  ૮. Parameterized constructor દર્શાવો.
  9. Classifications of data types.
  ૯. Data types નું વર્ગીકરણ કરો.
  10. Define ifstream & fstream.
  ૧૦. ifstream & fstream દર્શાવો.
- Q.2** (a) Explain access modifier. **03**
- પ્રશ્ન. ૨** (અ) Access modifier સમજાવો. **03**
- OR**
- (a) Explain default arguments. **03**
- (અ) Default arguments સમજાવો. **03**
- (b) Explain pure virtual function? Give suitable example. **03**

	(બ) Pure virtual function સમજાવો? યોગ્ય ઉદાહરણ આપો.	03
	OR	
	(b) Explain the nested class with example.	03
	(બ) Nested class ને ઉદાહરણ સાથે સમજાવો.	03
	(c) Explain function overloading with example.	04
	(ક) Function overloading ને ઉદાહરણ સાથે સમજાવો.	04
	OR	
	(c) What is friend function? What are the merits and demerits of friend functions?	04
	(ક) Friend function શું છે? તેના લાભ અને ગેરલાભ શું છે?	04
	(d) Explain in detail about operator overloading.	04
	(ડ) Operator overloading ને વિગતવાર સમજાવો.	04
	OR	
	(d) Difference between class and structure.	04
	(ડ) Class અને structure વચ્ચેનો તફાવત.	04
Q.3	(a) What are reference variables?	03
પ્રશ્ન. 3	(અ) Reference variables એટલે શું?	03
	OR	
	(a) Comparison between constructor and destructor.	03
	(અ) Constructor and destructor વચ્ચેનો તફાવત આપો.	03
	(b) What is Static function? Explain with suitable example.	03
	(બ) Static function એટલે શું? યોગ્ય ઉદાહરણ સાથે સમજાવો.	03
	OR	
	(b) What is the use of explicit constructor?	03
	(બ) Explicit constructor નો ઉપયોગ શું છે?	03
	(c) Show the use of multilevel inheritances with the help of proper programming example.	04
	(ક) યોગ્ય પ્રોગ્રામીંગ ની મદદ સાથે multilevel inheritances નો ઉપયોગ બતાવો.	04
	OR	
	(c) Explain call by value and call by reference.	04
	(ક) Call by value and call by reference સમજાવો.	04
	(d) Explain hierarchical and hybrid inheritance with example.	04
	(ડ) Hierarchical અને hybrid inheritance ઉદાહરણ સાથે સમજાવો.	04
	OR	
	(d) What is virtual base class? Give suitable example.	04
	(ડ) Virtual base class શું છે? યોગ્ય ઉદાહરણ આપો.	04
Q.4	(a) Write a brief note on Memory management operator in C++	03
પ્રશ્ન. 4	(અ) C++ માં Memory management operator વિશે ટૂંક નોંધ લખો.	03
	OR	
	(a) Basic structure of JAVA programming.	03
	(અ) JAVA programming નું Basic માળખું.	03
	(b) Explain scope resolution operator with example.	04
	(બ) Scope resolution operator ઉદાહરણ સાથે સમજાવો.	04

OR

	(b) Give advantages of JAVA.	04
	(બ) JAVA ની ફાયદા આપો.	૦૪
	(c) Write a program to implement constructor, copy constructor and destructor.	07
	(ક) Write a program to implement constructor, copy constructor and destructor.	૦૭
<b>Q.5</b>	(a) Explain the features of I/O system supported by C++.	04
<b>પ્રશ્ન. ૫</b>	(અ) C++ દ્વારા આધારભૂત I/O system ની લક્ષણો સમજાવો.	૦૪
	(b) What is stream? Explain C++ stream classes with diagram.	04
	(બ) Stream શું છે? C++ સ્ટ્રીમ ક્લાસ આકૃતિ દોરી સમજાવો.	૦૪
	(c) Explain types of polymorphism.	03
	(ક) Polymorphism ની પ્રકાર સમજાવો.	૦૩
	(d) Explain in detailed about manipulators.	03
	(ડ) Manipulators ને વિગતવાર સમજાવો.	૦૩

\*\*\*\*\*