

**Government College of Engineering, Aurangabad**  
(An Autonomous Institute of Government of Maharashtra)  
**SE (Information Technology) Examination**

End Semester Examination 2016

**IT244: Object Oriented Programming**

Time : Three Hours

Date- 12.11.2016

Max. Marks: 60

*“Verify the course code and check whether you have got the correct question paper”*

*N.B.:-*

- 1. All Questions are Compulsory*
- 2. Figure to the right indicates full marks*
- 3. Assume suitable data if necessary and state it clearly*
- 4. Use of non-programmable calculator is allowed*

**Q.1 Attempt any two**

**12 Marks**

- a) Explain for loop syntax , using for loop write a program for fibonacci series .
- b) What is OOP? In what way it is different from procedure oriented programming? Explain.
- c) Write a program to declare a structure student having data members rollno, name, percentage. Accept this data for 5 objects. Display name of student having highest percentage

**Q.2 Attempt any two**

**12 Marks**

- a) Write a program to declare a class 'motor bike' having data member as brand\_ name, average distance for one liter offered. Accept and display this data for 50 bikes.
- b) One interesting use of static member variable to keep track of number of objects of a class that are in existence at any given instance of time. The way to do this is to increment a static member variable each time when an object is created & decremented when an object is destroyed. Write a program to implement such schemes.
- c) What is friend function? How it is differ from member function. Explain with suitable example(program).

**Q.3 Attempt any two**

**12 Marks**

- a) Differentiate between compile time polymorphism and run time

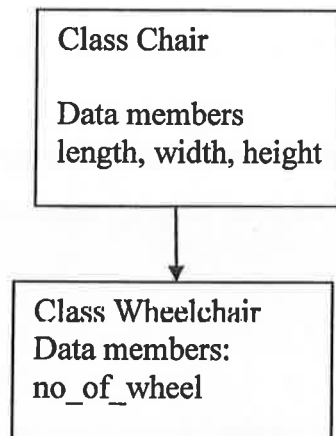
polymorphism

- b) Can base class pointer used to call virtual function. Justify your answer.
- c) Create a class Sample that contain one float data member. Overload all the four arithmetic operators so that they operate on the objects of Sampl

**Q.4 Attempt any two**

**12 Marks**

- a) Create a class distance to store distance in feet and inches. Overload unary – operato
- b) Give comparison between static binding and dynamic binding
- c) Identify what type of Inheritance is this? Write program for it crate 100 objects



**Q.5 Attempt any two**

**12 Marks**

- a) What is difference between manipulators and ios member functions in implementation give example.
  - b) What is file mode? Explain various file mode options available.
  - c) Write a program to open an existing file in read mode and count new lines, chrecters and tabs in the file.
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