

**OBJECT ORIENTED PROGRAMMING**

(Common to CSE, IT & CSS)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 Explain the following:
  - (a) Inheritance and polymorphism.
  - (b) Dynamic binding and message passing.
  
- 2 Write a java program that will compute the following series:
  - (a)  $1/1+1/2+1/3+\dots+1/n$ .
  - (b)  $1/1+1/2+1/2^2+1/2^3+\dots+1/2^n$ .
  
- 3
  - (a) Explain about "extends" keywords.
  - (b) What is the mechanism by which a call to an overridden method is resolved at run time? Explain with an example.
  
- 4
  - (a) Define an interface? Write a program which illustrates the design and implementation of an interface?
  - (b) What are the advantages of packages?
  
- 5 Write a program to implement the stack operations by handling the exceptions.
  
- 6 Design a scientific calculator using AWT?
  
- 7
  - (a) Explain the functionality of JComponent with an example.
  - (b) Differentiate JComponent and JPanel.
  
- 8 Write about the following:
  - (a) Server socket.
  - (b) Datagram socket.

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