

# END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY 2017

Paper Code: BCA-206

Subject: Java programming

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q no.1 which is compulsory.

- Q1 Answer the following:- (5x5=25)
- (a) What is type casting? Illustrate with example what is meant by Automatic type promotion.
  - (b) What is delegation event model?
  - (c) Discuss the uses of 'throw' and 'throws' keywords.
  - (d) Explain the different uses of 'super' keyword.
  - (e) Explain the lifecycle of an applet.
- Q2 (a) Explain why the main function is declared as "public static void main (String args[])"? (4)
- (b) List and explain any 8 Java buzzwords. (4)
- (c) List and explain the OOP principles. (4.5)
- Q3 (a) Explain the concept of abstract classes in Java. (6)
- (a) What is a Package? Discuss with suitable example the steps involved in creating and using packages. (6.5)
- Q4 (a) What are interfaces? What are their benefits? Give the general form of a class that implements interfaces. (6)
- (b) Write a Java class called as SavingsAccount with members as AccountNo and Balance. Provide depositAmount() & withdrawAmount() functions. If user tries to withdraw more money than his balance, then throw a User Defined Exception. (6.5)
- Q5 (a) Explain the different ways of creating threads in java with syntax. (6)
- (b) How shared object can be protected from multiple access of threads? (6.5)
- Q6 (a) Bring out the differences between AWT and Swings using suitable example. (6)
- (b) Discuss various layout managers available in AWT. (6.5)
- Q7 (a) Write a program to illustrate BufferedInputStream and BufferedOutputStream. (6)
- (b) Compare byte stream class and character stream class. (6.5)
- Q8 Write short notes on the following:-
- (a) JDBC architecture (3)
  - (b) Adapter classes (3)
  - (c) Applets and comparison with application program (3)
  - (d) Check box and choice list (3.5)

\*\*\*\*\*