END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY-JUNE 2016

Paper Code: BCA-206	
Time : 3 Hours	Subject: Java Programming
	Maximum Marks :75

Note: Attempt any five question including Q.No.1 which is compulsory.

Q1 Answer the following questions: **(2.5x10=25)**
- (a) How can we pass parameters to an applet?
- (b) What is the role of layout manager in AWT orswing?
- (c) Can applet class have a constructor? Justify your answer.
- (d) What is the purpose of the jar tool?
- (e) What is the difference between Integer and int?
- (f) Why is it illegal for static method to invoke a non-static method?
- (g) What do you understand by daemon thread.
- (h) State the uses of 'super' keyword with an example.
- (i) Write a note on inner classes.
- (j) What do you understand by garbage collection in java?

Q2 (a) What is the difference between equality of objects and equality of references that refer to them? **(6)**
(b) Write an application that computes the value of following expression 'exp' using the formula: $exp = 1 + x/1! + x2/2! + x3/3! + \ldots$ **(6.5)**

Q3 (a) What is the role of priorities in multithreading. What are its limitations? Explain with the help of an example how to set and get priority values for threads in Java. **(5)**
(b) What do you understand by inter-thread communication in java? **(5)**
(c) What is the role of stack in exception handling? **(2.5)**

Q4 (a) Write a java program to accept two file names as command line argument. Copy only those lines from the first file to second which contains the word 'computer'. **(8)**
(b) Discuss in detail 'throw' and 'throws' keywords. **(4.5)**

Q5 (a) Explain in brief Java's event handling mechanism with the help of an example. **(5)**
(b) What is a container? Explain how components are added to a container. What is a default layout of an applet? How can you change it? **(4.5)**
(c) List the methods under Window Listener Interface. **(3)**

Q6 (a) Swing components are lightweight components. Comment. **(4.5)**
(b) What is a String Buffer class and how does it differ from String class? **(4)**
(c) Why do we need both run() and start() methods in multithreading? Can we achieve it with only run() method? Explain. **(4)**

Q7 (a) Explain in detail various input and output streams and their corresponding classes in Java. **(6.5)**
(b) Explain the life cycle of an applet. **(6)**

Q8 Write notes on the following: **(3.5, 3, 3, 3)**
- (a) Interfaces
- (b) Adapter classes
- (c) Life cycle of Java Servlet
- (d) Checked Exceptions

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