

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

FOURTH SEMESTER B. E. (COMPUTER) DEGREE EXAMINATION – DECEMBER 2006**SUBJECT: ADVANCED JAVA PROGRAMMING (CSE 210)
(CREDIT SYSTEM)**

Wednesday, December 13, 2006

Time: 3 Hrs.

Max. Marks: 100

Answer any FIVE full questions..

1A. Explain the following oop concepts:

- i) Encapsulation ii) Inheritance iii) Polymorphism iv) abstraction

1B. Give a program to illustrate the following:

- i) Method overriding ii) Dynamic method dispatch

(10+10 = 20 marks)

2A. Discuss "Access protection" with respect to packages.

2B. Define a stack interface. Use it to implement a fixed stack (fixed length) and a Dynamic stack (doubles its size on requirement).

2C. Write a java program to validate the given no. If the no. is outside the predefined range, raise an exception. Use an user defined Exception class.

(5+10+5 = 20 marks)

3A. Write a java program to create one main thread and two child threads. Each child thread displays 1 to n with a gap of 1 sec. value of n is 10 for child1 and 20 for child2. The main thread should wait until both the threads terminates.

3B. Describe interthread communication using wait() and notify().

3C. Give an example for serialization.

(6+6+8 = 20 marks)

4A. Discuss the role of following in writing applets:

- i) init() ii) start() iii) paint()
iv) stop() v) destroy()

4B. Write an event driven java program to implement the following:

<u>Event</u>	<u>Action</u>
Mouse enters / exits window	Display a message "Entered / Exited" at Upper / left corner
Mouse click / press / Release	Display "click / press / Release" at current position
Mouse Moved	Display "Moving mouse at position x, y" at the bottom

(10+10 = 20 marks)

- 5A. How can you add, remove and respond to controls in a window?
- 5B. Display the status of individual check boxes in a checkbox Group of size 5. The checkbox Group allows the user to select any one of the 5 different operating systems.
- 5C. Write an applet program to create a 4×4 grid and fills it with 15 buttons, each labeled with its index.

(5+8+7 = 20 marks)

- 6A. Discuss the steps involved in connecting a java program to a database. How can you implement read and write operations?
- 6B. Explain the steps that you must follow to create a new Bean.

(10+10 = 20 marks)

- 7A. Write a note on the following swing components:

i) Tabbed Panes ii) Trees

- 7B. Explain the life cycle of a servlet.

- 7C. How can you read the names and values of parameters that are included in a client request?

(10+5+5 = 20 marks)

