1129
B. E. (Information Technology)
Fifth Semester
ITE-505(a): Java Programming / Technologies

Time allowed: 3 Hours   **Max. Marks: 50**

NOTE: Attempt _five_ questions in all, including Question No. I which is compulsory
and selecting two questions from each Unit.

x-x-x

I.   Attempt the following:-

a) What are the advantages of using ArrayList over Array?

b) What are the various ways by which a thread can enter in waiting state?

c) Differentiate between byte streams and character streams.

d) What is JavaBeans?

e) Mention any two advantages of using J2EE.   (5x2)

UNIT – I

II. a) What is an exception? Differentiate between checked and unchecked exceptions
with example.

b) What is the significance of assigning priority to threads? How can we set a thread's
priority?

c) What is the need of synchronization of threads?   (5,3,2)

III. a) With the help of an example highlight the differences between overriding and
overloading.

b) Write the output of the following Java Program.
```
class Test {
        public static void main(String args[]) {
            int arr[] = new int[2];
            System.out.println(arr[0]);
            System.out.printm(arr[l]);
    }

    }
```
c) Explain the use *of static and final* keywords.   (5,2,3)

IV. a) What are applets? How are they different from application programs? Write down
the code for creating an applet which will display a message "Hello World".

b) Explain *Panel, Frame* and *Canvas* classes.   (2x5)

UNIT – II

V.   a) What are the common tasks performed by servlet container?

b) Explain any one method of session management in servlets?   (5,5)

VI.   a) Explain various methods used to fire SQL statements on the database.

b) Explain the component based architecture of J2EE.   (5,5)

VII.   a) Differentiate between stateful and stateless session beans.

b) Describe the life cycle of an entity bean.

c) What are the benefits of using EJB over other components architecture?   (3,4,3)

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