

[Total No. of Questions - 9] [Total No. of Printed Pages - 4]
(2064)

14644

B. Tech 4th Semester Examination

Internet Technology (N.S.)

CS-223

Time : 3 Hours

Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt all Sections.

SECTION - A

Note: Attempt any One Question.

1. Answer all parts of the following: (4×5=20)
 - (i) What is meaning of constructor overloading? Give example.
 - (ii) What is access specifier? How many access specifier available in Java? Explain with the help of example.
 - (iii) What are Java Buzz words? Explain with proper example.
 - (iv) Write a program to demonstrate difference between implicit and explicit type casting.
2. Answer all parts of the following: (4×5=20)
 - (i) How is Java more secured than other programming languages?
 - (ii) What is the usage of final keyword? Give example for every use.
 - (iii) Write a program to check if a string is palindrome.

14644/600

[P.T.O.]

- (iv) Write a program to check whether a number is power of 2 or not. (i.e. If input: 16 then your program should print true)

SECTION - B

Note: Attempt any One Question.

3. Answer all parts of the following: (4×5=20)

- (i) What is multiple inheritance? Why Java doesn't support multiple inheritance?
- (ii) Explain the difference between following
 - (a) throw and throws
 - (b) catch and finally
- (iii) Explain architecture of JVM.
- (iv) Suppose the following programming situation:
 - (a) A method is used to calculate the area of a rectangle when length and breadth are given.
 - (b) The same method may be used to calculate the area of a circle when radius is given.

Use method overloading facility available in Java to implement the above programming situation.

4. Answer all parts of the following: (4×5=20)

- (i) What is difference between abstract class and interface? Give example also to support your answer.
- (ii) What kind of polymorphism is available in Java? Use examples to support your answer.
- (iii) Write a program that will read a number, create your own exception that will print a message "enter larger number" if entered number is less than 10.

- (iv) Define an abstract class Shape, having a function area(). Create a subclass Rectangle and overrides area() method that will calculate the area of the rectangle.

SECTION - C

Note: Attempt any One Question.

5. Answer both parts of the following: (2×10=20)
- (i) Explain thread life cycle. Write a program to create a thread and also demonstrate life cycle with the help of example. Also change priority of thread.
 - (ii) (a) What is Event Delegation Model? Write a program with the help of Action Listener, Mouse Listener to demonstrate event handling.
(b) Why we use Layout Managers in Java? Explain Different type of Layout Managers used in Java AWT.
6. Answer both parts of the following: (2×10=20)
- (i) What is filter stream? Write a program to write primitive data into file and also read the data in primitive data type.
 - (ii) Why swing is light weight than AWT? What is event dispatch thread? Write a program in Java using swing to create a simple frame in EDT.

SECTION - D

Note: Attempt any One Question.

7. Answer both parts of the following: (2×10=20)
- (i) Write the Java code required to create a moving banner for an input string. Embed this applet in an HTML tag.
 - (ii) What are different types of Driver? Write a program in Java using prepared Statement to show data from a table. What is advantage of using Prepared Statement over Statement [table: emp(emp_id, name, salary)].

[P.T.O.]

8. Answer both parts of the following: (2×10=20)
- (i) (a) Describe the different stages in the life cycle of an applet. Distinguish between init() and start() methods.
 - (b) What is a Java Bean? What are the advantages of using Java Beans?
 - (ii) What is Scrollable Result Set? Write a program using JDBC which demonstrate use of scrollable Result Set.

SECTION - E

9. Answer all parts of the following: (10×2=20)
- (i) What is javadoc command? Which comment style used for javadoc?
 - (ii) What is a literal? How many types of literals are there in Java?
 - (iii) List out some method for String manipulation in Java.
 - (iv) What is meant by garbage collection?
 - (v) What is the use of super keyword?
 - (vi) What are Packages? What is the use of Packages?
 - (vii) What would be the output of following Java Code?

```
class ABC{
    public static void main (String args[ ]){
        int m,n,r;
        int x=40, y=35, z=20, w=10;
        m=x*y/z-w;
        n=x*y/ (z-w);
        r=m-n;
        system.out.print ("Value of r: "+r);}}
```
 - (viii) What is the use of synchronized keyword? Give a situation where use of synchronized if preferred?
 - (ix) What are the Action Listeners?
 - (x) What is the significance of static keyword in Java programming?