

**Mid Semester Examination**  
**School of Computer Engineering**  
**KIIT University**  
**Subject : Programming Tools & Techniques**

Time : 2hrs

Full Marks: 25

**(Answer any Five Questions including Question No. 1)**

- Q.1 Answer the following questions briefly. /1 X 5
- (i) Write any two difference between abstract class and interface in Java.
  - (ii) Explain any one technique of attaching external stylesheet.
  - (iii) Explain any two usage of 'final' keyword with example in Java.
  - (iv) Write the output of the following Java code with justification.  

```
class p{
String s= "abc";
public static void main (String a[]){
    System.out.println(s);}
}
```
  - (v) What is Orthogonality and what is its disadvantage?
- Q.2 What is command line argument in Java ? Write a program in Java to find no. of even and odd numbers out of five numbers entered at the command line. /1+4
- Q.3 Explain in detail the characteristics of a good programming language. /5
- Q.4 Design a registration form in HTML with following fields. /5
- |             |   |
|-------------|---|
| Name        | -textfield  |
| Photo       | -image  |
| Address     | -textarea   |
| Password    | -password field                                     |
| DateOfBirth | - three separate combo box for date, month and year |
| Gender      | -radio button ( male or female)                     |
| Hobbies     | -checkbox (minimum three hobbies)                   |
| Submit      | -button   |
- Q.5. In an organization there are two types of employees – technical and non-technical, each with name, department name and unique ID. The rules for salary calculation are as follows –  
 Earnings = basic + DA (80% of basic) + HRA (15% of basic)  
 Deduct = 12 % of basic  
 Bonus = 40% of basic  
 Net salary = earnings –deduct + bonus (if any)  
 Bonus is given only to the non-technical employees. Write all the programs in Java to print salary slip for an employee for the user entered basic salary amount using method overriding technique. /5
- Q.6 . What is Dynamic Method Dispatch ? Explain it with suitable example in Java. /5
- Q.7. Write short notes on any two of the following – /5
- i) frames in HTML
  - ii) static modifier in Java
  - iii) Programming environment
  - iv) package in Java