Programmkonstruktion - Principles of Computing

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writen examination, 90 minutes, 72 Points

First name	
Sure name	
Matr. number	
Points	
Mark	

1. Write the binary number 10010010 in decimal notation. (Points: 4)

2. We have the following variables within a JAVA-program: hour, days, months, years (containing values already entered) which describe some time interval, write an expression, that assigns the number of hours to the variable lengthOfTime. (Points: 8)

3. This JAVA code write something on the screen, give the result: (Points: 6)

```java
public static void numberGame()
{
  int n=0;
  do{
    n++;
    System.out.print(n+"1");
  }while(n < 5);
}
```

4. Define the public class book, the class contains the ISBN of the book, the title and the author of the book. The author is of the type personName, which is defined at some other place. The constructor of this class sets the ISBN of the book. No other methods or variables are defined. (Points: 10)

5. libraryBook is a public class, that heritage the methods and variables of the superclass standardBook, write the first line. (Points: 3)

6. Define an array, that contains the days of the week.(Points: 5)

7. Describe this principle of an object oriented computer language. Give two examples of such a language and one language which is not object oriented.(Points 10)

8. The following part of a JAVA program processes nodes, there are three errors, please mark them and give the correction. List, LinkedList and orderedInsert are defines elsewhere (Points: 6)

```java
public class ListInsert {

    public static void main(String[]) {
        List list = new LinkedList();
        for (int i == 0; i < args.length; i++)
            orderedInsert(list,args[i])
        System.out.println(list);
    }
```

9. What is the task of a Javacompiler, why is it fundamental for platform independent programming. (Points: 5)

10. Applets have no main methode, how do you invoke activities, give an example? (Points: 5)

11. The displayBanner applet needs a working space of 468 by 60 Pixel within the browser. Write the HTML code. If the browser can not display an applet, it should display the text "Sorry, no JAVA available". (Points: 10)