

Midterm Exam II

Started: Oct 27 at 5:04pm

Quiz Instructions

Notes and scratch papers are allowed.

Questions

- Question 1

Question 2

Question 3

Question 4

Question 5

Question 6

Question 7

Question 8

Time Running: 

Hide Time

Attempt due: Oct 27 at 6:20pm

1 Hour, 14 Minutes, 20 Seconds

Question 1

20 pts

Consider the following code snippet.

```
int input=5;
if (input>0)
    while(input!=0)
        if (input%2==1)input--;
    else{
        input=input/2;
        System.out.println("halves the input");
    }
System.out.println("input is " + input);
```

a. (10 points) Using only spaces and line breaks, reformat the code snippet to make the algebraic operations, assignments, comparisons, and the control flow easier to understand.

b. (5 points) Use braces, { and }, to further clarify the code.

c. (5 points) What does the code print on screen?

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12pt Paragraph B I U A T<sup>2</sup>

p 0 words

Question 2

10 pts

Predict the output of the following program:

```
public class C{
    public static void main(String[]args) {
        int i; int j;
        for(i = 0; i < 4; i++){
            for(j = i; j < 4 + i; j++)
                System.out.print("");
            System.out.println();
        }
    }
}
```

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Question 3

20 pts

Complete the following Java program so that it checks the value of integer to see if it is between 5 and 20 (including 5 and 20). While is less than 5 or is greater than 20, it must keep asking the user to re-enter a new value for using keyboard. At the end, the program needs to calculate and print the square root of on the screen.

```
import java.util.Scanner;
public class MonthName {
    public static void main(String[]args) {
        Scanner s = new Scanner(System.in);
        int i = s.nextInt();
        //Your code comes here...
    }
}
```

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Question 4

10 pts

Predict the output of the following program:

```
public class A{
    public static void main(String[]args) {
        for(int i = 20; i < 30; i = i + 5)
            System.out.print(i + " ");
    }
}
```

☐ 20 21 22 23 24 25 26 27 28 29

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Question 5

10 pts

The output of the following program is

```
public class B{
    public static void main(String[]args) {
        int i = 0;
        while (i < 12) {
            i++;
            System.out.print("B");
            if (i == 2 && i == 4)
                continue;
            if (i == 6)
                break;
            System.out.print("E");
        }
    }
}
```

Question 6

10 pts

The output of the following program is

```
public class D{
    public static void main(String[]args) {
        String data = "monarchy";
        int i;
        for(i = data.length() - 1; i >=0; i--){
            switch(data.charAt(i)){
                case 'a':
                    System.out.print("X");
                    break;
                case 'h':
                    System.out.print("Y");
                    break;
                default:
                    System.out.print("Z");
            }
        }
    }
}
```

Question 7

10 pts

Predict the output of the following program:

```
public class E{
    public static void main(String[]args) {
        int[] numbers = {5, 6, 7, 8, 1, 2};
        for(int i = numbers.length - 1; i > - 1; i -= 2){
            System.out.print(numbers[i]);
        }
    }
}
```

Question 8

10 pts

The output of the following program is , ,

```
public class F{
    public static void main(String[]args) {
        int[] number = {6, 5, 4, 3, 9, 8, 7, 2, 1, 0};
        int i;
        for(i = 1; i <= number.length; i++)
            if(i % 4 != 0)
                System.out.print(number[i - 1]);
            else
                System.out.print("");
    }
}
```

Quiz saved at 5:05pm

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