

# CSE 101 Midterm 1

Olcay Taner YILDIZ, Esma MERAL

1. What is the correct syntax for the main method of a java class?
- public static int main(String[] args)
  - public int main(String[] args)
  - public static void main(String[] args)
  - public void main(String[] args)
  - None of the above
2. Which of the following can not be a variable name?
- sum
  - sum1
  - count
  - int
  - toplam
3. Given  $T$  as an integer, how do you check if  $T$  is between 0 and 10?
- if ( $0 < T < 10$ )
  - if ( $T > 0 \parallel T < 10$ )
  - if ( $T < 0 \parallel T > 10$ )
  - if ( $T < 0 \&\& T > 10$ )
  - if ( $T > 0 \&\& T < 10$ )
4. What is the value of integer variable x after the execution of the following line?
- ```
int x = 1 / 2 + 1 / 2 + 1 / 4 + 1 / 4;
```
- 0
  - 0.5
  - 1
  - 1.5
  - 2
5. Which of the following expressions result in value 2?
- $2 \% 1$
  - $15 \% 4$
  - $25 \% 5$
  - $38 \% 6$
  - $16 \% 3$
6. Which of the following code pieces will print the value of the variable x to the screen?
- System.out.println(x)
  - System.out.println("x")
  - System.out.println('x')
  - System.out.println(value of x)
  - System.out.println("value\_of\_x")
7. Which statement reads an integer value from user?
- Scanner input= new Scanner (System.in)
  - System.out.println("Enter\_a\_new\_integer");
  - int x = input.nextInt();
  - int x = Scanner.nextInt();
  - integer x = input.nextInt();
8. Suppose that x is a user given 3 digit integer (e.g. 635), which of the following prints its tens digit (e.g. 3)?
- System.out.println(x \* 10);
  - System.out.println(x / 10);
  - System.out.println((x / 10) % 10);
  - System.out.println((x % 10) % 10);
  - System.out.println(x % 10);
9. Translate this statement into Java: If the bmi is between 24 and 29, print "overweight".
- ```
if (bmi >24 && bmi < 29);
    System.out.println("overweight");
```
  - ```
if (bmi > 24 && bmi <29)
    System.out.println("overweight");
```
  - ```
if (24 < bmi < 29)
    System.out.println("overweight");
```
  - ```
if (bmi > 24 and bmi <29)
    System.out.println("overweight");
```
  - ```
if (bmi > 24 and bmi <29);
    System.out.println("overweight");
```

10. Suppose x is 42, what is the output of the following code?

```

if (x < 18)
    System.out.println("1");
else
    if (x < 40)
        System.out.println("2");
    else
        if (x < 60)
            System.out.println("3");
        else
            if (x < 80)
                System.out.println("4");
            else
                System.out.println("5");

```

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5

11. Suppose x is 42, what is the output of the following code?

```

if (x < 18)
    System.out.print("1");
if (x < 40)
    System.out.print("2");
if (x < 60)
    System.out.print("3");
if (x < 80)
    System.out.print("4");

```

- a) 1
- b) 2
- c) 3
- d) 34
- e) 4

12. What is the value of num after the following loop is executed?

```

for (num = 1; num <= 5; num++){
}
System.out.println(num);

```

- a) 2
- b) 3
- c) 4
- d) 5
- e) 6

13. Which of the following codes print numbers from 1 to 10?

a) 

```
for (int i = 0; i < 10; i++)
    System.out.println("i");
```

b) 

```
for (int i = 0; i < 10; i++)
    System.out.println(i);
```

c) 

```
for (int i = 1; i <=10; i++)
    System.out.println("i");
```

d) 

```
for (int i = 1; i <=10; i++)
    System.out.println(i);
```

e) None of the above

14. Which of the following for loops prints all the multiples of 4 from 4 to 48.

a) 

```
for (int i = 4; i <= 48; i++)
    System.out.println(i);
```

b) 

```
for (int i = 4; i < 48; i = i + 4)
    System.out.println(i);
```

c) 

```
for (int i = 4; i <= 48; i = i + 4)
    System.out.println(i);
```

d) 

```
for (int i = 4; i <= 48; i = i - 4)
    System.out.println(i);
```

e) None of the above

15. Which of the following codes prints 5 times "Hello World" to the screen?

a) 

```
for (int i = 0; i < 5; i++)
    System.out.println("Hello World");
```

b) 

```
for (int i = 0; i <= 5; i++)
    System.out.println("Hello World");
```

c) 

```
for (int i = 1; i <= 5; i = i + 2)
    System.out.println("Hello World");
```

d) 

```
for (int i = 0; i < 5; i = i + 2)
    System.out.println("Hello World");
```

e) None of the above

16. Which of the following codes produce the following output?

```
Hello
World
Hello
World
Hello
World
```

a)

```
for (int i = 1; i <= 6; i++){
    System.out.println("Hello");
    System.out.println("World");
}
```

b)

```
for (int i = 1; i <= 3; i++){
    System.out.println("Hello");
    System.out.println("World");
}
```

c)

```
for (int i = 1; i <= 6; i = i + 2){
    System.out.println("Hello");
}
for (int i = 2; i <= 6; i = i + 2){
    System.out.println("World");
}
```

d)

```
for (int i = 1; i <= 6; i++){
    System.out.print("Hello");
    System.out.print("World");
}
```

e)

```
for (int i = 1; i <= 3; i++){
    System.out.print("Hello");
    System.out.print("World");
}
```

17. What is the correct syntax for importing a library, Scanner?

- public static int main(String[] args)
- import static Scanner
- import java.util.Scanner;
- public class Scanner
- None of the above

18. What is the output of the following code, if the user enters 0?

```
int choice = input.nextInt ();
switch (choice){
    case 0:
        System.out.print("Gunaydin");
    case 1:
        System.out.print("Good_morning");
        break;
    case 2:
        System.out.print("Guten_morgen");
        break;
    case 3:
        System.out.print("Bonjour");
        break;
    default:
        System.out.println(" Invalid_input");
        break;
}
```

- Good morning
- GunaydinGood morning
- Bonjour
- Guten morgen
- Gunaydin

19. If you want to store the value 3 in a variable, which type(s) can you use?

- int, double
- double
- int
- boolean
- char, boolean

20. If you want to store the value 3.4 in a variable, which type(s) can you use?

- int, double
- double
- int
- boolean
- char, boolean

21. How can you define a constant PI with value 3.1415?

- final double PI;
- double PI;
- final double PI = 3.1415;
- double PI = 3.1415;
- None of the above

22. Which of the following codes is the same as the following code?

```
if (x == 2 || x == 4 || x == 9)
    System.out.println("Done");
else
    if (x == 1 || x == 3)
        System.out.println("Not_done");
    else
        System.out.println(" Invalid ");
```

a)

```
switch (x){
    case 2:
    case 4:
    case 9: System.out.println("Done");
    case 1:
    case 3: System.out.println("Not_done");
}
```

b)

```
switch (x){
    case 2:
    case 4:
    case 9: System.out.println("Done");
        break;
    case 1:
    case 3: System.out.println("Not_done");
        break;
}
```

c)

```
switch (x){
    case 2:
    case 4:
    case 9: System.out.println("Done");
        break;
    case 1:
    case 3: System.out.println("Not_done");
        break;
    default: System.out.println(" Invalid ");
}
```

d)

```
switch (x){
    case 2:
    case 4:
    case 9: System.out.println("Done");
    case 1:
    case 3: System.out.println("Not_done");
        break;
}
```

e)

```
switch (x){
    case 2:
    case 4:
    case 9: System.out.println("Done");
        break;
    case 1:
    case 3: System.out.println("Not_done");
    default: System.out.println(" Invalid ");
}
```

23. Which of the following is the java counterpart for the following math expression?

$$x^2y + \frac{z}{t}$$

- a)  $x^2y + \frac{z}{t}$
- b)  $x^2 * y + zt$
- c)  $x * x * y + z/t$
- d)  $x^2 * y + z/t$
- e) None of the above

24. What is the output of the following program?

```
int a = 4;
int b = 8;
int c = 12;
System.out.println(a + b * c);
```

- a) 144
- b) 100
- c) 24
- d) 80
- e) None of the above

25. What is the operator for checking equality of two variables in Java?

- a) ==
- b) =
- c) <>
- d) !=
- e) =!