**//1) What will be the output of following program?**

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**int** i;

System.***out***.println(i);

**int** j = 100;

System.***out***.println(j);

}

}

//**Ans:** Compile time error. variable i is not initialized.

**// 2) What will be the output of following program?**

**public** **class** Test {

**int** i;

**static** **int** j;

**public** **static** **void** main(String[] args) {

System.out.println(i); //Compile error - Cannot use non static in static method.

System.out.println(j);

}

**public** **void** non\_static() {

System.out.println(i);

System.out.println(j);

}

}

**// 3) What will be the output of following program?**

**public** **class** Test {

**public** **static** **void** main(String[] args) {

non\_static();

}

**public** **void** non\_static() {

System.out.println("pass");

}

}

//Ans: Compile error. Static method can only access static stuff

**// 4) What will be the output of following program?**

**public** **class** Test {

**int** i;

**static** **int** j;

**public** **static** **void** main(String[] args) {

non\_static();

}

**public** **static** **void** non\_static() {

System.out.println("pass");

}

}

//Ans : pass

**// 5) What will be the output of following program?**

**public** **class** Test {

**int** i;

**static** **int** j;

**public** **static** **void** main(String[] args) {

Test t = **new** Test();

t.non\_static();

t.meth\_static2(); //Warning

meth\_static2();

t.i = 100;

j = 200;

t.j = 400; //Warning

}

**public** **void** non\_static() {

System.out.println("pass1");

}

**public** **static** **void** meth\_static2() {

System.out.println("pass1");

}

}

//Ans: pass1 /n pass1

**// 6) Will this code compile?**

**public** **class** Demo1 {

**int** var = 10;

**public** **static** **void** main(String s[]) {

**int** local = var;

}

}

//Ans: No. Cannot use non-static variable var inside static method.

**// 7) Will this code compile?**

**class** Demo {

**static** **int** *var* = 9;

**public** **static** **void** func() {

System.***out***.println("learning static keyword");

}

}

**public** **class** Test {

**public** **static** **void** main(String s[]) {

Demo ob = **new** Demo();

ob.*var* = 9; // Warning : Demo.var = 9;

ob.*func*(); // Warning : Demo.func();

}

}

Ans: Yes. It will execute with couple of warnings.

**// 8) What will be the output of following program?**

**public** **class** Test {

**int** var;

**static** **int** *stc* = 7;

**public** **static** **void** main(String s[]) {

Test ob1 = **new** Test();

ob1.var = 9;

System.***out***.println("var of ob1 " + ob1.var);

Test ob2 = **new** Test();

ob2.var = 90;

System.***out***.println("var of ob2 " + ob2.var);

ob1.*stc* = ob1.*stc* + 100;

System.***out***.println("ob1 " + ob1.*stc*);

System.***out***.println("ob2 " + ob2.*stc*);

}

}

//Ans:

//var of ob1 9

//var of ob2 90

//ob1 107

//ob2 107

**// 9) What will be the output of following program?**

**public** **class** Test {

**int** i;

Test(**int** i) {

i = i; //Correction - this.i = i;

}

**public** **static** **void** main(String[] args) {

Test t = **new** Test(7);

System.out.println(t.i);

}

}

**// 10) What will be the output of following program?**

**public** **class** Test {

**int** age;

String name;

Test(**int** age, String name) {

**this**.age = age;

**this**.name = name;

}

**public** **static** **void** main(String[] args) {

Test t1 = **new** Test(17, "A");

Test t2 = **new** Test(13, "B");

Test t3 = **new** Test(14, "C");

t3 = t2;

t2 = t1;

t1 = t3;

System.out.println(t1.age);

System.out.println(t2.age);

System.out.println(t3.age);

}

}

//Ans:131713

**// 11) Whats the output of following program?**

**public** **class** Test {

**int** age;

String name;

Test() {

non\_static\_meth();

static\_meth();

}

**public** **static** **void** main(String[] args) {

Test t1 = **new** Test();

}

**public** **void** non\_static\_meth() {

System.out.print("NM ");

}

**public** **static** **void** static\_meth() {

System.out.println("SM");

}

}

//Ans: NM SM

**// 12) In real world, Constructors are used to:**

// 1) Initialize all variables of a class

// 2) Initialize non-static variables of a class

// 3) static variables can be initialized in constructors

// 4) Give initial state to object

**// 12) Whats the output of following program?**

**public** **class** Test {

**int** i;

**int** j;

Test(**int** i, **int** j) {

**this**.i = i;

**this**.j = j;

}

**public** **static** **void** main(String[] args) {

Test t1 = **new** Test(); //Compile Error

Test t2 = **new** Test(); //Compile Error

}

}

//Ans: Constructor arguments not matching

**// 13) Whats the output of following program?**

**public** **class** Test {

**int** i;

**int** j;

**public** **static** **void** main(String[] args) {

Test t1 = **new** Test();

Test t2 = **new** Test();

t1.j = t2.i = 5;

t1.i = t2.j = 6;

System.out.print(t1.j++ + " " + t2.i--);

}

}

**// 14) Whats the output of following program?**

**public** **class** Test {

Test t1 = **new** Test();

**int** i;

**static** **int** j;

**static** Test t2 = **new** Test();

**public** **static** **void** main(String[] args) {

t1.i = 10; // 1

i = 19; // 2

j = 10; // 3

t2.i = 19; // 4

}

}

**// 15) Compile-time errors are generated at which lines?**

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**public** **int** a; // 1

**protected** **int** b; // 2

**private** **int** c; // 3

**static** **int** d; // 4

**transient** **int** e; // 5

**volatile** **int** f; // 6

**final** **int** g = 1; // 7

**int** i = 7; // 8

**int** h; // 9

System.out.println(h); // 10

}

}

// 1. 1

// 2. 2

// 3. 3

// 4. 4

// 5. 5

// 6. 6

// 7. 7

// 8. 8

// 9. 9

// 10. 10

**// 16) What will be output of follwoing?**

**class** JavaClass {

**static** **int** *i*;

**static** JavaClass *obj*;

**public** **static** **void** main(String[] args) {

System.***out***.println(*obj* + "" + *i*);

}

}

**// 17) What will be output of follwoing?**

**public** **class** Test {

**static** **int** i;

**static** Test obj;

**public** **static** **void** main(String[] args) {

Test obj;

**int** i;

System.out.println(obj + "" + i);

}

}

**// 18) A compile-time error is generated at which line?**

**public** **class** Training {

**public** **static** **void** main(String[] args) {

**static** **int** a = 1; // 1

**int** b = 1; // 2

}

**public** **void** abc() {

**static** **int** a = 1; // 3

**int** b = 1; // 4

}

}

**// 19) Which is the valid way of calling the main1 method?**

**public** **class** JavaClass {

**public** **static** **void** main(String[] arg) {

main1(); // 1

JavaClass j = **new** JavaClass();

j.main1(); // 2

}

**public** **void** main1() {

}

}

// a) 1

// b) 2

// c) Both 1 and 2

// d) Neither 1 nor 2

// e) None of these

**// 20) Compile time errors are generated at which lines?**

**public** **class** JavaClass {

**int** i = 1;

**static** **int** a = 1;

**public** **static** **void** main(String[] args) {

}

**public** **void** nonstaticMethod() {

calArea(); // 1

nonstaticMethod(); // 2

JavaClass.calArea(); // 3

JavaClass t = **new** JavaClass();

t.calArea(); // 4

i = i + 1; // 5

a = a + 1; // 6

**static** **int** b = 1; // 7

}

**public** **static** **int** calArea() {

**return** 8 \* 8;

}

}

// a) 1,2,5,7

// b) 2,5,7

// c) 7

// d) 2,4,6,7

// e) 4,5,7

**// 21) Compile time errors are generated at which lines?**

**public** **class** JavaClass {

**int** i = 1;

**static** **int** a = 1;

**public** **static** **void** main(String[] args) {

JavaClass t = **new** JavaClass();

calArea(); // 1

nonstaticMethod(); // 2

JavaClass.calArea(); // 3

t.calArea(); // 4

i = i + 1; // 5

a = a + 1; // 6

**static** **int** b = 1; // 7

}

**public** **void** nonstaticMethod() {

}

**public** **static** **int** calArea() {

**return** 1 \* 1;

}

}

// a) 1,2,5,7

// b) 2,5,7

// c) 4,6,7

// d) 2,4,6,7

// e) 4,5,7

**// 22) What will be outut of following program?**

**public** **class** Test {

**int** i;

**int** j;

**public** **static** **void** main(String[] args) {

**int** area = calArea1(3, 4);

System.out.println(area);

Test t = **new** Test();

area = calArea2(t);

System.out.println(area);

}

**public** **static** **int** calArea1(**int** i, **int** j) {

**return** i \* j;

}

**public** **static** **int** calArea2(Test t) {

t.i = t.i + 10;

t.j = t.i + 20;

**return** t.i \* t.j;

}

}

**Module5:**

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**try** {

**int** o[] = **new** **int**[2];

o[3] = 23;

} **catch** (Exception e) {

System.***out***.println(e.getMessage());

e.printStackTrace();

}

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**try** {

**int** o[] = **new** **int**[2];

o[3] = 23;

o[1] = 33;

} **catch** (Exception e) {

System.***out***.println(e.getMessage());

e.printStackTrace();

}

System.***out***.println(o[1]);

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**int** o[] = **new** **int**[2];

**try** {

o[3] = 23;

o[1] = 33;

} **catch** (Exception e) {

System.***out***.println(e.getMessage());

e.printStackTrace();

}

System.***out***.println("2nd pos --" + o[1]);

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

Phone obj = **null**;

**try** {

obj.call();

System.***out***.println("success");

} **catch** (Exception e) {

System.***out***.println(e.getMessage());

e.printStackTrace();

}

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**int** a = *divide*(4, 2);

System.***out***.println(a);

**int** b = *divide*(4, 0);

System.***out***.println(b);

}

**public** **static** **int** divide(**int** a, **int** b) {

**int** result = 4;

**try** {

result = a / b;

} **catch** (Exception e) {

e.printStackTrace();

}

**return** result;

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**try** {

**int** a = *divide*(4, 2);

System.***out***.println(a);

**int** b = *divide*(4, 0);

System.***out***.println(b);

} **catch** (Exception e) {

System.***out***.println("error");

}

}

**public** **static** **int** divide(**int** a, **int** b) {

**int** result = a / b;

**return** result;

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**try** {

**int** a = *divide*(4, 2);

System.***out***.println(a);

**int** b = *divide*(4, 0);

System.***out***.println(b);

} **catch** (Exception e) {

System.***out***.println("error 1");

}

}

**public** **static** **int** divide(**int** a, **int** b) {

**int** result = 0;

**try** {

result = a / b;

} **catch** (Exception e) {

System.***out***.println("error 2");

}

**return** result;

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

System.***out***.println("A");

Thread.*sleep*(5000L);

System.***out***.println("B");

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**throw** **new** Exception("Some exception");

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

*xyz*();

}

**public** **static** **void** xyz() **throws** Exception {

**throw** **new** Exception("Some exception");

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) {

**try** {

*xyz*();

} **catch** (Exception e) {

System.***out***.println("error 1");

e.printStackTrace();

}

}

**public** **static** **void** xyz() **throws** Exception {

**throw** **new** Exception("Some exception");

}

}

//------------------------------------

**public** **class** Test {

**public** **static** **void** main(String[] args) **throws** Exception {

*xyz*();

}

**public** **static** **void** xyz() **throws** Exception {

**throw** **new** Exception("Some exception");

}

}