

Which of the following is true?

- A program will terminate only when all user threads stop running.
- A program will terminate only when all daemon stop running.
- A daemon thread always runs at Thread.MIN\_PRIORITY.
- None of the above.

ANS: A program will terminate only when all user threads stop running.

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```
class B implements Runnable{
    public void run() {
    }
}
class A {
public static void main(String[] args) {
    Thread my1 = new Thread();
    Thread my2 = new Thread("B");
    Thread my3 = new Thread(new B());
    Thread my4 = new Thread("B", new B());
}
}
```

What is the result?

- A compile-time error is generated at line 6
- A compile-time error is generated at line 7
- A compile-time error is generated at line 8
- A compile-time error is generated at line 9
- None of the above

Ans A compile-time error is generated at line 9 (Thread my4 = new Thread("B", new B());)

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```
class B extends Thread {
public String x;
B(String in) {
    x = in;
}
public void run() {
    for(int i=1; i<5; i++) {
        System.out.println(x+"-"+i);
    }
}
}
class A {
public static void main(String[] args) {
```

```
B obj1 = new B("o");
B obj2 = new B("x");
obj1.setPriority(1);
obj2.setPriority(10);
obj1.start();
obj2.start();
}
}
```

Which of the following is true?

- This program will go exception when compiling.
- Obj1 runs at Thread.MIN\_PRIORITY.
- Obj2 runs at Thread.MIN\_PRIORITY.
- The Thread.setDaemon method can change Thread.MIN\_PRIORITY.
- None of the above.

Ans Obj1 runs at Thread.MIN\_PRIORITY.

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```
class A extends Thread {
    private String i;
    public void run() {
        i = "A";
    }
    public static void main(String[] args) {
        A a = new A();
        a.start();
        System.out.print(a.i);
    }
}
```

Which of the following are possible results of attempting to compile and run the program?

- prints: A
- prints: 0
- prints: null
- prints: i
- Compile-time error

Ans : prints: null

Thread 2 is called at a.start() but the thread1 which is the main thread is not yet pointing to i

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```

public B extends Thread {
    public void run() {
        System.out.print("A");
    }
}
class A {
    public static void main (String[] args) {
        B obj = new B() ;
        obj.start() ;
        obj.start() ;
    }
}

```

What is the result of attempting to compile and run the program?

- The program compiles and runs fine but prints nothing.
- prints: A
- Compiler error
- An `IllegalThreadStateException` is thrown at run-time
- None of the above

Ans An `IllegalThreadStateException` is thrown at run-time  
( Throws `IllegalStateException` and also Prints A.)

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```

public class Hello implements Runnable {
    public void run () {
        System.out.print ( "running" );
    }
    public static void main ( String[] args ) {
        Thread t = new Thread ( new Hello());
        t.run ();
        t.run ();
        t.start ();
    }
}

```

What is the result?

- Compilation fails
- An exception is thrown at runtime
- The code executes and prints "running"
- The code executes and prints "runningrunning"
- The code executes and prints "runningrunningrunning"

Ans: The code executes and prints "runningrunningrunning"

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```

class A extends Thread {
    public void m1( ) {
        System.out.print("A" );
    }
    public void m2( ) {
        synchronized(System.out) {
            try {
                Thread.sleep(1000) ;
                System.out.print("B") ;
            }
            catch(InterruptedException e) { }
        }
    }
    public void run( ) {
        this.m1( ) ;
        this.m2( ) ;
    }

    public static void main(String args[ ]) {
        A obj1 = new A( ) ;
        obj1.start( ) ;
        A obj2 = new A( ) ;
        obj2.start( ) ;
    }
}

```

Which of the following are possible results of attempting to compile and run the program?

- ABAB
- BABA
- AABB
- BBAA
- ABBA

ANS: ABAB

---

```

class A implements Runnable {
    boolean obj1_ok = false;
    A( ) {
        Thread obj1 = new Thread(this, "o");
        Thread obj2 = new Thread(this, "x");
        obj2.start( ) ;
        obj1.start( ) ;
    }
    public synchronized void my( ) {

```

```

        if(Thread.currentThread( ).getName( ).equals("x")) {
            while( !obj1_ok) {
                try {
                    System.out.print("A");
                    wait( ) ;
                } catch(InterruptedException e) {
                }
            }
        }
        System.out.print("B"); obj1_ok = true ; notifyAll( ) ;
    }

    public void run( ) { my( ) ;
    }
    public static void main (String[ ] args) {
        A obj = new A( ) ;
    }

```

Which of the following are possible results of attempting to compile and run the program?

- ABA
- BAB
- AAB
- BBA
- ABB

Ans ABB

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