

Given:

```
1. import java.util.*;
2. public class Alpha {
3.     public static void main(String args [ ] ) {
4.         ArrayList< Object > x1= new ArrayList < Object> ();
5.         alphaM(x1);
6.     }
7.     public static void alphaM(List < Object > list) {
8.     }
9. }
```

What will be the result?

Please select :

- ☐ A. Code will compile successfully.
- ☐ B. Compilation will fail due to error on line 4.
- ☐ C. Compilation will fail due to error on line 5.
- ☐ D. Exception will be thrown at runtime.

Given :

```
public class Basket<E> {  
    private E element;  
    public void setElement(E element) {  
        this.element = element;  
    }  
    public E getElement() {  
        return element;  
    }  
}
```

```
class Fruit { }  
class Apple extends Fruit { }
```

What is the result of compiling the following code?

1. `Basket<Fruit> basket = new Basket<>();`
2. `basket.setElement(new Apple());`
3. `Apple apple = basket.getElement();`

Please select :

- ☐ A. The code compiles and runs successfully with no output
- ☐ B. The code gives compiler error at line 1
- ☐ C. The code gives compiler error at line 2
- ☐ D. The code gives compiler error at line 3

Given :

```
public class Basket<E> {  
    private E element;  
    public void setElement(E element) {  
        this.element = element;  
    }  
    public E getElement() {  
        return element;  
    }  
}  
class Fruit { }  
class Apple extends Fruit { }  
class Orange extends Fruit { }
```

What is the result of compiling the following code?

1. Basket<Fruit> basket = new Basket<>();
2. basket.setElement(new Apple());
3. Orange orange = (Orange) basket.getElement();

Please select :

- ☐ A. The code compiles and runs successfully with no output
- ☐ B. The code gives compiler error at line 1
- ☐ C. The code throws exception at line 2
- ☐ D. The code throws exception at line 3

Given the following code :

```
3. import java.util.*;
   4. public class ListProvider {
   5.     public void takeList(List<? extends String> list) {
   6.         // insert code here
   7.     }
   8. }
```

Which three code fragments, inserted independently at line 6, will compile? (Choose three options.)

Please select :

- ☐ A. list.add("foo");
- ☐ B. Object o = list;
- ☐ C. String s = list.get(0);
- ☐ D. list = new ArrayList<>();
- ☐ E. list = new ArrayList<Object>();

Given :

```
//insert code here ....line 11
private N less, more;
public N getLess() { return less; }
public N getMore() { return more; }
public void add(N added) {
    if (less == null || added.doubleValue() < less.doubleValue())
        less = added;
    if (more == null || added.doubleValue() > more.doubleValue())
        more = added;
}
}
```

Which two, inserted at line 11, will allow the code to compile?
(Choose two options.)

Please select :

- ☐ A. public class LessMore<?> {
- ☐ B. public class LessMore<? extends Number> {
- ☐ C. public class LessMore<N extends Object> {
- ☐ D. public class LessMore<N extends Number> {
- ☐ E. public class LessMore<? extends Object> {
- ☐ F. public class LessMore<N extends Integer> {

Given :

```
1. import java.util.*;
2. public class X {
3.     public static void main(String [ ] args) {
4.         //insert code here
5.     }
6.     public static void foo(List<Object> list) {
7.     }
8. }
```

Which block of code inserted at line 4, will allow the code to compile?

(Choose two options.)

Please select :

- ☐ A. `ArrayList<String> x1 = new ArrayList<String>(); foo(x1);`
- ☐ B. `ArrayList<Object> x2 = new ArrayList<String>(); foo(x2);`
- ☐ C. `ArrayList<Object> x3 = new ArrayList<Object>(); foo(x3);`
- ☐ D. `ArrayList x4 = new ArrayList(); foo(x4);`

Given :

```
3. import java.util.*;
4. public class ListOper {
5.     public void editList(List<? extends String> list) {
6.         // insert code here
7.     }
8. }
```

Which three code fragments, inserted independently at line 6, will compile?
(Choose three options.)

Please select :

- ☐ A. list.add("foo");
- ☐ B. Object o = list;
- ☐ C. String s = list.get(0);
- ☐ D. list = new ArrayList();
- ☐ E. list = new ArrayList();

Given :

```
import java.util.*;  
public class Hancock {  
    // insert code here Line 5  
    list.add("smith");  
}  
}
```

Which two code fragments, inserted independently at line 5, will compile without warnings?

(Choose two options.)

Please select :

- ☐ A. public void addStrings(List list) {
- ☐ B. public void addStrings(List<String> list) {
- ☐ C. public void addStrings(List<? super String> list) {
- ☐ D. public void addStrings(List<? extends String> list) {

Given :

```
public class Box<T> {  
    // T stands for "Type"  
    private T t;  
    public void add(T t) {  
        this.t = t;  
    }  
    public T get() {  
        return t;  
    }  
}
```

Which type used instead of T to substitute the generics will not compile?

Please select :

- ☐ A. String
- ☐ B. boolean
- ☐ C. Float
- ☐ D. Integer