1. char what\_char = "L";

Which of the following statements would not produce the compile error?

* 1. char my\_char = 'c';
  2. char your\_char = 'int';
  3. char what = 'Hello';
  4. char what\_char = "L";
  5. char ok = '\u3456';

1. What is the result of the compilation of following code:

public class Que2{

public static void main(String []args) {

float luckyNumber = 1.25;

System.out.println("Lucky Number = " +luckyNumber);

} }

1. Lucky Number = 1.25f
2. Lucky Number = 1.25
3. This code would not compile.
4. This code would compile, but would throw an exception at run time
5. What is the output of this code?

1. class A {

2. A(String message) {

3. System.out.println(message + " from A.");

4. }

5. }

6. class B extends A{

7. B() {

8. System.out.println("Hello from B.");

9. }

10. }

11. class RunSubClass {

12. public static void main(String[] args) {

13. B b = new B();

14. }

15. }

1. Hello from B.
2. A compiler error occurs at line 2.
3. A compiler error is triggered by the call made at line 13
4. It compiles fine but throws a runtime exception

4. Which of the following statement(s) is / are true about the following code?

1. class MySuperClass {

2. public void message() {

3. System.out.println("From the super class!");

4. }

5. }

6. public class MySubClass extends MySuperClass {

7. void message() {

8. System.out.println("From the subclass!");

9. }

10. public static void main(String args[]) {

11. MySubClass mysub = new MySubClass();

12. mysub.message();

13. }

14. }

a. The code would compile and execute, and generate the output: From the subclass!.

b. The code would compile and execute, and generate the output: From the super class!.

c. Line 7 would generate a compiler error

d. Line 11 would generate a compiler error.

5. Consider the following code fragment:

1. class MySuperClass {

2. static void message() {

3. System.out.println("From the super class!");

4. }

5. }

6. public class MySubClass extends MySuperClass {

7. void message() {

8. System.out.println("From the subclass!");

9. }

10. public static void main(String args[]) {

11. MySubClass mysub = new MySubClass();

12. mysub.message();

13. }

14. }

Which of the following modifiers placed in the beginning of line 7 will make the code compile and execute without error?

1. static
2. public
3. protected
4. final

6. Consider the following code fragment

1. package RobotDrivers ;

2. import robots.\*;

3. public class RobotPlayer extends FunnyRobot {

4. static int i =5;

5. public static void main(String[] args){

6. i = 6;

7. RobotPlayer rp = new RobotPlayer();

8. rp.dance();

9. }

10. }

Which of the following statements is true about this code fragment?

1. The code will compile and execute correctly, and generate the output: The funny robot is dancing
2. There would be a compiler error at line 7 because the method dance() is protected and the classes RobotPlayer and FunnyRobot are in different packages
3. There would be a compiler error at line 6.
4. The code will compile, but will generate a runtime exception

7. Which of the following statements is true?

1. Only primitive data types, and not the object references, can be converted implicitly
2. Only the object references, and not the primitive data types, can be cast (converted explicitly)
3. Both object references and primitive data types may be converted implicitly and explicitly
4. Casting primitive data types is checked only at execution time

8. You have been given a design document for implementation in Java. It states:

*A room has a table, and a chair. A classroom is a room that has a teacher and students.*

*Assume that the Room class has already been defined*.

Which of the following data members would be appropriate to include in the class ClassRoom?

A. Room aRoom;

B. Table aTable;

C. Chair aChairbb;

D. Teacher aTeacher;

E. Student aStudent;

9. What output is generated when the class Test is run?

class SuperClass {

SuperClass() {

System.out.print(" I was in Super Class." );

}

public void aMethod (int i) {

System.out.print (" The value of i is " + i );

}

}

class SubClass extends SuperClass {

public void aMethod(int j) {

System.out.print (" The value of j is " + j );

}

}

class Test {

public static void main(String args[]) {

SubClass sub = new SubClass();

sub.aMethod(5);

} }

A. The value of i is 5.

B. The value of j is 5.

C. I was in Super Class. The value of i is 5.

D. I was in Super Class. The value of j is 5.

10. Consider the following code fragment:

1 for (int i = 0; i < 2; i++) {

2 for ( int j = 1; j < 4; j++) {

3 if ( i == j ) {

4 continue;

5 }

6 System.out.println ( " i = " + i + " j = " + j );

7 }

8 }

Which of the following lines would be part of the output? (Choose all that apply.)

A. i = 0 j = 1

B. i = 0 j = 2

C. i = 0 j = 3

D. i = 1 j = 1

E. i = 1 j = 2

F. i = 1 j = 3

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. Given the following class definition

1. public class DoSomething {

2. public void go() {

3. System.out.print(“A”);

4. try {

5. stop();

6. }catch(ArithmeticException e) {

7. System.out.print(“B”);

8. }finally {

9. System.out.print(“C”);

10. }

11. System.out.print(“D”);

12. }

13.

14. public void stop() {

15. System.out.print(“E”);

16. Object x = null;

what is printed before the stack trace caused by the NullPointerException thrown on line 17 displays?

A. AE

B. AECD

C. AEC

D. AEBCD

E. No output appears before the stack trace displays.

12.

What is the output of the following program?

1. public class MathProblem {

2. public static int divide(int a, int b) {

3. try {

4. return a / b;

5. }catch(RuntimeException e) {

6. return -1;

7. }catch(ArithmeticException e) {

8. return 0;

9. }finally {

10. System.out.print(“done”);

11. }

12. }

13.

14. public static void main(String [] args) {

15. System.out.print(divide(12, 0));

16. }

17. }

A. - 1

B. 0

C. done0

D. done - 1

E. The code does not compile.

13. What is the output of the following program?

1. public class Vowels {

2. public static int countVowels(String input) {

3. int count = 0;

4. int length = input.length();

5. int i = 0;

6.

7. String lowercase = input.toLowerCase();

8. while(i < length) {

9. switch(lowercase.charAt(i)) {

10. case ‘a’:

11. case ‘e’:

12. case ‘i’:

13. case ‘o’:

14. case ‘u’:

15. count++;

16. }

17. i++;

18. }

19. return count;

20. }

21.

22. public static void main(String [] args) {

23. int x = countVowels(“Supercalifragilisticexpialidocious”);

24. System.out.print(x);

25. }

26. }

A. 0

B. 16

C. 34

D. 35

E. The code does not compile.

14. What is the output of the following program?

1. public class Laptop {

2. public void start() {

3. try {

4. System.out.print(“Starting up”);

5. throw new Exception();

6. }catch(Exception e) {

7. System.out.print(“Problem”);

8. System.exit(0);

9. }finally {

10. System.out.print(“Shutting down”);

11. }

12. }

13.

14. public static void main(String [] args) {

15. new Laptop().start();

16. }

17. }

A. Starting up

B. Starting upProblem

C. Starting upProblemShutting down

D. Starting upShutting down

E. The code does not compile.

15. What gets printed in the following program?

1. public class Mouse {

2. public String name;

3.

4. public void run() {

5. System.out.print(“1”);

6. try {

7. System.out.print(“2”);

8. name.toString();

9. System.out.print(“3”);

10. }catch(NullPointerException e) {

11. System.out.print(“4”);

12. throw e;

13. }

14. System.out.print(“5”);

15. }

16.

17. public static void main(String [] args) {

18. Mouse jerry = new Mouse();

19. jerry.run();

20. System.out.print(“6”);

21. } }

A. 1

B. 2

C. 3

D. 4

E. 5

F. 6

G. Stack trace for a NullPointerException

16. What is the result of the following code?

1. public class Shape {

2. private String color;

3.

4. public Shape(String color) {

5. System.out.print(“Shape”);

6. this.color = color;

7. }

8.

9. public static void main(String [] args) {

10. new Rectangle();

11. }

12. }

13.

14. class Rectangle extends Shape {

15. public Rectangle() {

16. System.out.print(“Rectangle”);

17. }

18. }

A. ShapeRectangle

B. RectangleShape

C. Rectangle

D. Line 4 generates a compiler error.

E. Line 15 generates a compiler error.

17. Given the following class definitions:

1. public class Parent {

2. public Parent() {

3. System.out.print(“A”);

4. }

5. }

6.

7. class Child extends Parent {

8. public Child(int x) {

9. System.out.print(“B”);

10. }

11.

12. public Child() {

13. this(123);

14. System.out.print(“C”);

15. }

16.}

what is the output of the following statement?

new Child();

A. ABC

B. ACB

C. AB

D. AC

E. This code does not compile.

18. What is the output of the following program?

1. public class WaterBottle {

2. private String brand;

3. private boolean empty;

4.

5. public static void main(String [] args ) {

6. WaterBottle wb = new WaterBottle();

7. if(!wb.empty) {

8. System.out.println(“Brand = “ + wb.brand);

9. }

10. }

11.}

A. Line 6 generates a compiler error.

B. Line 7 generates a compiler error.

C. Line 8 generates a compiler error.

D. There is no output.

E. Brand = null

19. Given the following my.school.ClassRoom and my.city.School class definitions:

1. //ClassRoom.java

2. package my.school;

3. public class ClassRoom {

4. private int roomNumber;

5. protected String teacherName;

6. static int globalKey = 54321;

7.

8. ClassRoom(int r, String t) {

9. roomNumber = r;

10. teacherName = t;

11. }

12. }

//School.java

1. package my.city;

2. import my.school.ClassRoom;

3. public class School {

4. public static void main(String [] args) {

5. System.out.println(ClassRoom.globalKey);

6. ClassRoom room = new ClassRoom(101, “Mrs. Anderson”);

7. System.out.println(room.roomNumber);

8. System.out.println(room.teacherName);

9. }

10. }

which of the following line numbers in main generate a compiler error? (Select all that apply.)

A. None; the code compiles fine.

B. Line 5

C. Line 6

D. Line 7

E. Line 8

20. Suppose we have the following class named ClassRoom :

1. package my.school;

2. public class ClassRoom {

3. public static int globalKey = 54321;

4. }

Now suppose we have the following class named Administrator:

1. package my.city;

2.

3. public class Administrator {

4. public int getKey() {

5. return globalKey;

6. }

7. }

Which one of the following statements inserted at line 2 of the Administrator class will make the Administrator class compile successfully?

A. import my.school.ClassRoom;

B. import static my.school.ClassRoom.\*;

C. import static my.school.ClassRoom;

D. import static my.school.\*;

E. Nothing — the class compiles.

21. Given the following interface and class defined in a file named Traceable.java , what is the result of compiling this code?

1. public interface Traceable {

2. public static int MAX\_TRACE;

3. public void trace();

4. }

5.

6. class Picture implements Traceable {

7. public void trace() {

8. System.out.println(“Tracing a picture”);

9. }

10. }

A. Two bytecode files: Traceable.class and Picture.class

B. One bytecode file: Traceable.class

C. Compiler error on line 2

D. Compiler error on line 3

E. Compiler error on line 6

F. Compiler error on line 7

22. Given the following class definitions:

1. class Parent {

2. public void printResults(String... results) {

3. System.out.println(“In Parent”);

4. }

5. }

6.

7. class Child extends Parent {

8. public int printResults(int id) {

9. System.out.println(“In Child”);

10. return 0;

11. }

12.}

what is the result of the following statement?

new Child().printResults(0);

A. In Parent

B. In Child

C. 0

D. Line 2 generates a compiler error.

E. Line 8 generates a compiler error.

23.

What is the result of the following program?

1. class Parent {

2. public float computePay(double d) {

3. System.out.println(“In Parent”);

4. return 0.0F;

5. }

6. }

7.

8. public class Child extends Parent {

9. public double computePay(double d) {

10. System.out.println(“In Child”);

11. return 0.0;

12. }

13.

14. public static void main(String [] args) {

15. new Child().computePay(0.0);

16. }

17. }

A. In Parent

B. In Child

C. 0.0

D. null

E. The code does not compile.

24. Suppose a method in a class has the following method declaration:

public java.io.OutputStream createStream(String fileName) {

//method body here...

}

Which of the following methods could appear in a child class and override createStream ?

A. public java.io.OutputStream createStream(String f)

B. public java.io.OutputStream createStream(char c)

C. public java.io.FileOutputStream createStream(String f)

D. public void createStream(String c)

E. public java.io.OutputStream createStream(StringBuffer fileName)

F. protected java.io.OutputStream createStream(String fileName).

25. Given the following class definitions, what is the output of the statement new Child(); ?

1. class Parent {

2. {

3. System.out.print(“1”);

4. }

5.

6. public Parent(String greeting) {

7. System.out.print(“2”);

8. }

9. }

10.

11. class Child extends Parent {

12. static {

13. System.out.print(“3”);

14. }

15.

16. {

17. System.out.print(“4”);

18. }

19. }

A. 1234

B. 3123

C. 3142

D. 3124

E. The code does not compile.

26. Given the following class definitions:

1. class Parent {

2. public void print(double d) {

3. System.out.print(“Parent”);

4. }

5. }

6.

7. class Child extends Parent {

8. public void print(int i) {

9. System.out.print(“Child”);

10. }

11.}

what is the result of the following code?

15. Child child = new Child();

16. child.print(10);

17. child.print(3.14);

**A.** ChildParent

**B.** ChildChild

**C.** ParentParent

**D.** Line 8 generates a compiler error.

**E.** Line 17 generates a compiler error.

27. Given the following interface definitions:

1. //Readable.java

2. public interface Readable {

3. public abstract void read();

4. }

1. //SpellCheck.java

2. public interface SpellCheck extends Readable {

3. public void checkSpelling();

4. }

which of the following statements are true? (Select all that apply.)

**A.** The SpellCheck interface does not compile.

**B.** A class that implements Readable must override the read method.

**C.** A class that implements SpellCheck inherits both the checkSpelling and read methods.

**D.** A class that implements SpellCheck only inherits the checkSpelling method.

**E.** An interface cannot extend another interface.

28. Given the following class definitions:

1. class Pet {

2. {

3. System.out.print(“A”);

4. }

5. public Pet() {

6. System.out.print(“B”);

7. }

8. {

9. System.out.print(“C”);

10. }

11.

12.}

13.

14. class Cat extends Pet {

15. public Cat() {

16. System.out.print(“D”);

17. }

18. static {

19. System.out.print(“E”);

20. }

21.}

what is the result of the following statement?

new Cat();

**A.** ABCDE

**B.** ACBED

**C.** EACBD

**D.** EBACD

**E.** The output may vary.

29. Given the following TV class:

1. public class TV {

2. private String make;

3. private String model;

4.

5. public TV(String make, String model) {

6. this.make = make;

7. this.model = model;

8. }

9.

10. public boolean equals(TV other) {

11. return make.equals(other.make) & &

12. model.equals(other.model);

13. }

14.

15. public int hashCode() {

16. return make.length() \* 10 + model.length();

17. }

18. }

what is the result of the following statements?

TV a = new TV(“Philips”, “42PFL5603D”);

TV b = new TV(“Philips”, “42PFL5603D”);

if(a.equals(b)) {

System.out.println(“equal”);

} else {

System.out.println(“not equal”);

}

**A.** equal

**B.** not equal

**C.** Line 10 causes a compiler error.

**D.** Line 11 causes a compiler error.

**E.** Line 15 causes a runtime exception to occur.

30.

What is the result of the following program?

1. public class Vehicle {

2. public boolean used;

3. public String make;

4.

5. public static void main(String [] args) {

6. Vehicle v = new Vehicle();

7. if(v.used) {

8. System.out.println(v.make);

9. } else {

10. System.out.println(v.make.length());

11. }

12. }

13. }

A. null

B. 0

C. Line 7 generates a compiler error.

D. Line 8 generates an exception at runtime.

E. Line 10 generates an exception at runtime.

31.

What is the result of the following program?

1. public abstract class Message {

2. public String recipient;

3.

4. public abstract final void sendMessage();

5.

6. public static void main(String [] args) {

7. Message m = new TextMessage();

8. m.recipient = “6055551212”;

9. m.sendMessage();

10. }

11. }

12.

13. class TextMessage extends Message {

14. public final void sendMessage() {

15. System.out.println(“TextMessage to “

16. + recipient);

17. }

18. }

A. TextMessage to 6055551212

B. TextMessage to null

C. Compiler error on line 1

D. Compiler error on line 4

E. Compiler error on line 9

32.

Given the following Parent class definition:

1. public class Parent {

2. Object doSomething(int x) {

3. return null;

4. }

5. }

which of the following methods could appear in a child class of Parent

**A.** public void doSomething(int x)

**B.** protected String doSomething(int x)

**C.** private Thread doSomething(int x)

**D.** private Thread doSomething(short x)

**E.** public double doSomething(int y)

33.

What is the result of the following program?

1. public class MathFunctions {

2. public static void addToInt(int x, int amountToAdd)

3. {

4. x = x + amountToAdd;

5. }

6.

7. public static void main(String [] args) {

8. int a = 15;

9. int b = 10;

10. MathFunctions.addToInt(a, b);

11. System.out.println(a);

12. }

13. }

**A.** 25

**B.** 15

**C.** 10

**D.** A compiler error occurs on line 4.

**E.** A compiler error occurs on line 10.

34.

Given the following interface and class definitions:

1. //Readable.java

2. public interface Readable {

3. public void read();

4. public int MAX\_LENGTH = 10;

5. }

1. //MyReader.java

2. public class MyReader implements Readable {

3. public void read() {

4. Readable.MAX\_LENGTH = 25;

5. System.out.println(Readable.MAX\_LENGTH);

6. }

7. }

what is the result of the following statement?

new MyReader().read();

**A.** 25

**B.** 10

**C.** Compiler error on line 3 of Readable.java

**D.** Compiler error on line 4 of Readable.java

**E.** Compiler error on line 4 of MyReader.java

35.

What is the result of the following code?

21. final byte b = 1;

22. int value = 2;

23. switch(value) {

24. case b : System.out.print(“A”);

25. break;

26. case 2 : System.out.print(“B”);

27. case 3 : System.out.print(“C”);

28. default : System.out.print(“D”);

29. break;

30. }

**A.** Compiler error on line 24

**B.** B

**C.** BC

**D.** BCD

**E.** Compiler error on line 29