**LIST PROJECT - OOPS ASSESSMENT**

**1. Which statement about methods is true?**

**(a)** A method is an implementation of an abstraction.

**(b)** A method is an attribute defining the property of a particular abstraction.

**(c)** A method is a category of objects.

**(d)** A method is an operation defining the behavior for a particular abstraction.

**2.Which statement about objects is true?**

**(a)** An object is what classes are instantiated from. **(b)** An object is an instance of a class.

**(c)** An object is a blueprint for creating concrete realization of abstractions. **(d)** An object is a reference.

**3. Which is the first line of a constructor declaration in the following code?**

public class Counter

{ // (1)

int current, step;

public Counter(int startValue, int stepValue)

{ // (2)

setCurrent(startValue);

setStep(stepValue);

}

public int getCurrent()

{

return current;

} // (3)

public void setCurrent(int value)

{

current = value;

} // (4)

public void setStep(int stepValue)

{

step = stepValue;

} // (5)

}

**(a)** (1) **(b)** (2) **(c)** (3) **(d)** (4) **(e)** (5)

**4. Given that Thing is a class, how many objects and how many reference variables**

**are created by the following code?** **Select the two correct answers.**

Thing item, stuff;

item = new Thing();

Thing entity = new Thing();

**(a)** One object is created. **(b)** Two objects are created. **(c)** Three objects are created.

**(d)** One reference variable is created. **(e)** Two reference variables are created.

**(f)** Three reference variables are created.

**5. Which statement about instance members is true?**

**(a)** An instance member is also called a static member. **(b)** An instance member is always a field.

**(c)** An instance member is never a method. **(d)** An instance member belongs to an instance, not to the class as a whole. **(e)** An instance member always represents an operation.

**6. How do objects communicate in Java? Select the one correct answer.**

**(a)** They communicate by modifying each other’s fields.

**(b)** They communicate by modifying the static variables of each other’s classes.

**(c)** They communicate by calling each other’s instance methods.

**(d)** They communicate by calling static methods of each other’s classes.

**7. Given the following code, which statements are true? Select the two correct answers.**

class A {

int value1;

}

class B extends A {

int value2;

}

**(a)** Class A extends class B. **(b)** Class B is the superclass of class A.

**(c)** Class A inherits from class B. **(d)** Class B is a subclass of class A.

**(e)** Objects of class A have a field named value2. **(f)** Objects of class B have a field named value1.

8. Which command from the JDK should be used to compile the following source code contained in a file named SmallProg.java?

public class SmallProg {

public static void main(String[] args) {

System.out.println("Good luck!"); }

}

**(a)** java SmallProg **(b)** javac SmallProg **(c)** java SmallProg.java **(d)** javac SmallProg.java

**9. Which command from the JDK should be used to execute the main() method of a class named SmallProg?**

**(a)** java SmallProg **(b)** javac SmallProg **(c)** java SmallProg.java **(d)** java SmallProg.class

**10. Which one of these declarations is a valid method declaration?**

**(a)** void method1 { /\* ... \*/ } **(b)** void method2() { /\* ... \*/ }

**(c)** void method3(void) { /\* ... \*/ } **(d)** method4() { /\* ... \*/ }

**11. Which statements, when inserted at (1), will not result in compile-time errors?**

public class ThisUsage {

int planets;

static int suns;

public void gaze() {

int i; // (1) INSERT STATEMENT HERE

}

}

**Select the three correct answers.**

**(a)** i = this.planets; **(b)** i = this.suns; **(c)** this = new ThisUsage();

**(d)** this.i = 4; **(e)** this.suns = planets;

**12. Given the following pairs of method declarations, which statements are true?**

void fly(int distance) {}

int fly(int time, int speed) {

return time\*speed;

}

void fall(int time) {}

int fall(int distance) {

return distance;

}

void glide(int time) {}

void Glide(int time) {}

**Select the two correct answers.**

**(a)** The first pair of methods will compile, and overload the method name fly.

**(b)** The second pair of methods will compile, and overload the method name fall.

**(c)** The third pair of methods will compile, and overload the method name glide.

**(d)** The second pair of methods will not compile. **(e)** The third pair of methods will not compile.

**13. Given a class named Book, which one of these constructor declarations is valid for the class Book?**

**(a)** Book(Book b) {} **(b)** Book Book() {} **(c)** private final Book() {}

**(d)** void Book() {} **(e)** public static void Book(String[] args) {} (f) abstract Book() {}

**14. Which statements are true? Select the two correct answers.**

**(a)** A class must define a constructor. **(b)** A constructor can be declared private.

**(c)** A constructor can return a value. **(d)** A constructor must initialize all fields when a class is instantiated.

**(e)** A constructor can access the non-static members of a class.

**15. What will be the result of compiling the following program?**

public class MyClass { long var;

public void MyClass(long param) { var = param; } // (1)

public static void main(String[] args) {

MyClass a, b; a = new MyClass(); // (2)

b = new MyClass(5); // (3)

}

}

**(a)** A compilation error will occur at (1), since constructors cannot specify a return value.

**(b)** A compilation error will occur at (2), since the class does not have a default constructor.

**(c)** A compilation error will occur at (3), since the class does not have a constructor that takes one argument of type int.

**(d)** The program will compile without errors.

**JAVA ASSESSMENT 1 – LICT PROJECT**

LOCATION: BRAC, DHAKA DATE: 03-01-18

BATCH CODE: TUP - BRAC - TOPIC: Java OOPS

NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BDS ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ MARKS: 20

**Please write correct answer (a,b,c,d,e) with in the box:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Question No. | Answer |  | Question No. | Answer |
| 1 |  | 11 |  |
| 2 |  | 12 |  |
| 3 |  | 13 |  |
| 4 |  | 14 |  |
| 5 |  | 15 |  |
| 6 |  |  |  |
| 7 |  |  |  |
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**Total Marks : \_\_\_\_\_\_\_\_\_ Student Sign :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Trainer Sign:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**