STUDENT ANSWER SHEET
1. The command is used to interpret and run the Java bytecode. [1 Mark(s)]
A. javac B. java
C. javap D. javadoc
2. Which of the following options are the correct implementations of a Queue? (Choose
two correct answers) [1 Mark(s)]
A. LinkedList B. ArrayList
C. PriorityQueue D. CircularQueue
3. Which of the following area in the memory stores object references, method
parameters, and its local variables? [1 Mark(s)]
A. Stack B. Heap
C. Accumulator D. Register
4. Which of the following is not the Java keyword? [1 Mark(s)]
A. final
B. super C. base D. static
5. Which of the following methods cannot have a body in Java? [1 Mark(s)] A. final
B. static C. local
D. native
6. The class is declared without a name within a code block such as the body of a

method. [1 Mark(s)]
A. Local inner class B. Anonymous class C. Static Nested class D. Final class
7. Which of the following interface does not inherit from the Collection interface? [1 Mark(s)] A. Set B. List C. Map D. Queue
8. Consider the following method declaration? [1 Mark(s)] Public short getInt() { int s = 5; return s; } Which of the following statements is true regarding the method declaration? A. The method parameter list cannot be empty B. The method will not compile as the variable s needs to cast C. The method will compile successfully D. The statement int s = 5 throws runtime exception
9. The keyword is used in an instance method or a constructor to refer to the current object. [1 Mark(s)] A. super B. static C. this D. new
10. Which of the following methods of an Exception class return the details about the exception that has occurred? [1 Mark(s)] A. getMessage() B. getCause() C. printStackTrace() D. StackTraceElement()

11. Given the statements: [1 Mark(s)]

SavingAccount objSA = new SavingAccount(); Account objAcc = objSA;

Which of the following options correctly indentifies the type of casting performed in these statements?

- A. Implicit
- B. Explicit
- C. Upcasting
- D. Downcasting

12. Consider the following declaration of a StringBuilder class: [1 Mark(s)] StringBuilder objSb = new StringBuilder("ABC");

Which of the following methods of the StringBuilder class when used will display the output as ABC123?

- A. objSb.concat("123");
- B. objSb.insert(1, "123");
- C. objSb.insertLast("123");
- D. objSb.append("123");

13. **Consider the following declaration:** [1 Mark(s)] double d = 15.3446;

Which of the following option shows the correct statement that produces the output, |015.345|?

- A. System.out.printf("|%07d|\n", d);
- B. System.out.printf("|%07.3f|\n", d);
- C. System.out.printf("|%07.3d|\n", d);
- D. System.out.printf("|%07.3e|\n", d);

14. Which of the following command is used to extract contents of a .jar file [1.5 Mark(s)]

- A. jar cf jar-file-name
- B. jar xf jar-file-name
- C. jar tf jar-file-name
- D. java -jar jar-file-name

15. Which of the following keywords are used to explicitly raise an exception from a

method? (Choose two correct answers) [1.5 Mark(s)]

- A. try
- B. catch
- C. throw
- D throws
- 16. Which of the following statements are true regarding transient modifier? (Choose three correct answers) [2 Mark(s)]
 - A. Can only be used with instance variables
 - B. Useful to prevent security sensitive data from being copied to a source in which no security mechanism has been implemented
 - C. Informs the JVM not to store the variable when the object, in which it is declared, is serialized
 - D. Involves performance issues and also increases cost
- 17. Which of the following statements are true regarding local inner classes? (Choose two correct answers) [2 Mark(s)]
 - A. Associated with an instance of the enclosing class
 - B. Cannot access private members of the enclosing class
 - C. Can access any local variables, method parameters, or exception parameters within scope of the local method declared as final
 - D. Can implement anonymous interfaces

STUDENT ANSWER SHEET

1. Which of the following statements truly specifies the characteristics of static methods in Java? (Choose two correct answers) [1 Mark(s)]
A. Can access only static data B. Can invoke static and normal methods C. Can use super keyword D. Cannot use this keyword
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4. Which of the following area in the memory stores object references, method parameters, and its local variables? [1 Mark(s)]
A. Stack B. Heap C. Accumulator D. Register
5. Consider the following code snippet: [1 Mark(s)] 1. Iterator itr = arraylist.iterator(); 2. // insert code here 3. {
4. System.out.println(itr.next());5. }

Which of the following statement added at line 2 will compile the code successfully? A. while (itr.moreElements()) B. while (itr.hasElements()) C. while (itr.hasNext()) D. while (itr.next()) 6. Which of the following statements are true regarding the Java Virtual Machine? (Choose two correct answers) [1 Mark(s)] A. It is an execution engine which creates a platform independent execution environment for executing compiled code B. The same implementation of JVM is available for different platforms C. The same bytecode can be executed by the same implementation of JVM D. It is an imitation of a Java processor on the physical machine 7. Identify which of the following declarations of a class will generate errors during compilation? (Choose three correct answers) [1 Mark(s)] A. class c1 { } B. class B implements i1 implements i2 { } C. class D extends c1, implements i2 {} D. class E extends i1, i2 { } 8. Consider the following code: [1 Mark(s)] public class TestArray { public static void main(String [] args) { int arr[] = $\{1, 2, 3, 4\}$; for(int x = 1; x < arr.length; x++) { System.out.print(arr[x++] + " "); } } } What is the result of the code on execution? A. 13 B. 234 C. 1234 D. 24

E. F. G

- 9. Consider a directory structure created on the Window system: A directory named AlphaProject has been created. It contains two sub-directories named source and classes. The source directory contains a Java file named MyProgram.java. Assume that the current directory has been set to AlphaProject. Then, what will be the result of the following command invocation on the command prompt, javac -d classes source/MyProgram.java. [1.5 Mark(s)]
 - A. If the command is executed successfully, then MyProgram.class file is added in the source directory
 - B. If the command is executed successfully, then MyProgram.class file is added in the current directory
 - C. If the command is executed successfully, then MyProgram.class file is added in the classes directory
 - D. The MyProgram, java file is not compiled successfully because the command result in a error
- 10. "Given that the root directory contains a subdirectory called ""BankApp"" that contains files for a Java application. The following command is invoked from the root directory in order to create a JAR file containing the ""BankApp"" directory: jar -cf X Y, where X and Y are arguments. Which of the following statements correctly identify the arguments X and Y in the jar command?" [1.5 Mark(s)]
 - A. X should be the file name of the JAR file, and Y should be "BankApp"
 - B. X should be "BankApp", and Y should be the file name of the JAR file
 - C. Both X and Y specifies file name of the JAR file
 - D. If a file name is not specified, then file named BankApp.jar will be created
- 11. Which of the following statements are true while using the import statement? (Choose three correct answers) [1.5 Mark(s)]
 - A. Not required to import classes present in the java.lang package
 - B. import statement is not required for the classes inherited from some other package
 - C. import statement is not required for the classes located in the same package
 - D. Classes that are declared and used along with their package name do not require the import statement
- 12. After the installation of JDK is completed on the system, a directory structure is created under the default directory, that is, C:\Program Files\Java. [1.5 Mark(s)] Which of the following folder in the directory structure contains tools, such as compiler and JVM used for developing a Java application?

```
A. bin
 B. db
 C. include
 D. lib
13. Consider the following code: [1.5 Mark(s)]
public class Test {
static int count = 0;
Test() { while(count < 10) new Test(++count); }
Test(int x) { }
public static void main(String[] args) {
 new Test();
 new Test(count);
 System.out.println(count++);
What is the output of the code on execution?
 A. 10
 B. 11
 C 12
 D. Compilation fails
14. Consider the following declarations: (Choose two correct answers) [1.5 Mark(s)]
boolean b = false;
int i = 7;
double d = 1.23;
float f = 4.56f;
Which of the following options are the correct format specifiers to format and print the value
of these variables on the console?
 A. System.out.printf(" %b", b);
 B. System.out.format(" %d", i);
 C. System.out.format(" %d", d);
 D. System.out.printf(" %i", i);
```

15. Identify which among the following are the valid development tools provided by Java Development Kit. (Choose two correct answers) [1.5 Mark(s)]

- A. javah
- B. docjava
- C. javadoc
- D. jar
- 16. Which of the following statements are true regarding transient modifier? (Choose three correct answers) $[1.5\ Mark(s)]$
 - A. Can only be used with instance variables
 - B. Useful to prevent security sensitive data from being copied to a source in which no security mechanism has been implemented
 - C. Informs the JVM not to store the variable when the object, in which it is declared, is serialized
 - D. Involves performance issues and also increases cost

STUDENT ANSWER SHEET

1. Consider the following code snippet: [1 Mark(s)] ArrayList marks = new ArrayList(); marks.add(67); marks.add(90); marks.add(78); marks.add(90); marks.add(34); marks.add(56); Collections.sort(marks); System.out.println(marks);
What is the output of the code?
A. [34, 56, 67, 78, 90, 90] B. [90, 90, 78, 67, 56, 34] C. [90, 78, 67, 56, 34] D. Compilation error
2. Which of the following statements truly specifies the characteristics of static methods in Java? (Choose two correct answers) [1 Mark(s)]
A. Can access only static data B. Can invoke static and normal methods C. Can use super keyword D. Cannot use this keyword
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```
5. Consider the following code: [1 Mark(s)]
public class TestArray {
  public static void main(String [] args) {
    int arr[] = {1, 2, 3, 4};
    for(int x = 1; x < arr.length; x++) {
        System.out.print(arr[x++] + " "); }
  }
}
What is the result of the code on execution?

A. 1 3
B. 2 3 4
C. 1 2 3 4
D. 2 4
E.
F.
G.
```

6. Match the following modifiers with their description. [1 Mark(s)]

```
7. Consider the code snippet: [1 Mark(s)]
```

Consider the code snippet:

```
int x =0;
int y = 10;
do {
    y--;
    ++x;
} while (x < 5);
System.out.print(x + "","" + y);</pre>
```

What is the output of the following code?

A. 5, 6

```
B. 6, 5
C. 5, 5
D. 6, 6
```

- 8. Which of the following statements are true regarding the static methods? (Choose two correct answers) $[1 \ Mark(s)]$
 - A. Can invoke only static methods and variables
 - B. Cannot use this keyword

public class Account {
int accountID = 110;

- C. Can invoke super class methods
- D. Can be used as static constructors

```
9. Consider the following code: [1.5 Mark(s)]
class Student {
 String name;
 int age;
 boolean fullTimeCourse = true;
 public void display() { System.out.println("Name: " + name); }
 public boolean isFullTimeCourse() { return fullTimeCourse; }
class TestStudent {
public static void main(String[] args) {
  Student jack = new Student();
  Student jill = new Student();
 jack.name = "Jack";
 jack.age = 18;
 jill = jack;
 jill.name = "Jill";
 System.out.println("Jack's Name:" + jack.name);
} }
What is the output of the code on execution?
 A. Jack's Name:Jill
 B. Jack's Name: Jack
 C. Exception is thrown at runtime
 D. Jack's Name:
```

10. Consider the following declaration of a class Account: [1.5 Mark(s)]

```
String holderName = ""Jill Rock"";
String accountType = ""Current"";
/* Initialization block */
{
    accountID = 100;
    holderName = ?John Anderson?;
    accountType = ?Savings?;
}
Which of the following statements are true with respect to the object instantiation for the class Account?
```

- A. The newly created object will be initialized with the values 110, Jill Rock, Current
- B. The newly created object will be initialized with the values 100, John Anderson, Savings
- C. The newly object will be initialized with values 0, null, null as constructor is missing
- D. The object can be instantiated for the class Account as its compilation fails

11. Consider the following code: [1.5 Mark(s)]

```
public class Test {
static int count = 0;
Test() { while(count < 10) new Test(++count); }
Test(int x) { }
public static void main(String[] args) {
    new Test();
    new Test(count);
    System.out.println(count++);
}
}
What is the output of the code on execution?

A. 10
B. 11
C. 12
D. Compilation fails</pre>
```

12. Consider the following declarations: (Choose two correct answers) [1.5 Mark(s)]

```
boolean b = false;
int i = 7;
double d = 1.23;
float f = 4.56f;
Which of the following options are the correct format specifiers to format and print the value of these variables on the console?

A. System.out.printf(" %b", b);
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C. System.out.format(" %d", d);
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 - D. Can implement anonymous interfaces

- 16. Which of the following statements are true with respect to exceptions in Java? (Choose two correct answers) $[1.5 \, Mark(s)]$
 - A. The try statement must be followed by only one catch or a finally block
 - B. The Exception subclasses are used when the called method handles the exception
 - C. Repeated re-throwing of the same exception must be avoided as it may slow down programs that are known for frequently raising exceptions
 - D. Use the throw statement to throw an exception that a method does not handle by itself

View student result
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A. Stack
В. Неар
C. Accumulator
D. Register
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B. super
C. base
D. static
5. Which of the following methods cannot have a body in Java? [1 Mark(s)]
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6. The class is declared without a name within a code block such as the body of a method. [1 Mark(s)]
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D. Final class
7 Which of the following interface does not inherit from the Collection interface? [1 Mark(s)]

```
D. StackTraceElement()
11. Given the statements: [1 Mark(s)]
SavingAccount objSA = new SavingAccount();
Account objAcc = objSA;
Which of the following options correctly indentifies the type of casting performed in these
statements?
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 B. Explicit
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 int x = 0;
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 System.out.println(count++);
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B. X should be "BankApp", and Y should be the file name of the JAR file

- C. Both X and Y specifies file name of the JAR file
- D. If a file name is not specified, then file named BankApp.jar will be created
- 17. Which of the following statements are true while using the import statement? (Choose three correct answers) [2 Mark(s)]
 - A. Not required to import classes present in the java.lang package
 - B. import statement is not required for the classes inherited from some other package
 - C. import statement is not required for the classes located in the same package
 - D. Classes that are declared and used along with their package name do not require the import statement

STUDENT ANSWER SHEET
1. Which of the following patterns represents a file name ending with an extension of .java? [1 Mark(s)]
A. \.java B. *.java C. *.java* D. **.java
2. The method retrieves and removes next watch key and waits if none are yet present [1 Mark(s)]
A. void poll(long timeout, TimeUnit unit) B. WatchKey poll(long timeout, TimeUnit unit) C. void take() D. WatchKey take()
3 is the process of designing an application so that it can be adapted to various languages and regions without engineering changes. [1 Mark(s)]
A. Localization B. Finalization C. Serialization D. Internationalization
4. Sometimes the term internationalization is abbreviated as[1 Mark(s)]
A. i18n B. 110n C. inter18n D. global18n
5. The class is used to tailor program output to the conventions of a particular geographic, political, or cultural region. [I Mark(s)]
A. Localization B. Internationalization

C. Locale D. Globalization
6. In the internationalization and localization process, a language is represented usingcode. [1 Mark(s)] A. ISO 3166 B. ISO 2005-2008 C. ISO 639 D. ISO 5033
7. The language that is used to uniquely encode characters for various languages in the world using hexadecimal values is known as [1 Mark(s)] A. ISO 2099 B. ISCII C. ASCII D. Unicode 16
8. The following method of Local class returns a Local Object. [1 Mark(s)] A. getDefault() B. getDisplayCountry() C. getDisplayLanguage() D. getLocalObject()
9. In internationalization file stores the information about the characteristics of a program or environment. [1 Mark(s)] A. Install file B. Config file C. Properties file D. Resource file
10. Which one of the following is a 16-bit char value? [1 Mark(s)] A. Code Point B. Character C. Code Unit D. Character Set

11. Identify the code that represents a country in the Internalization process. [1 Mark(s)]
A. ISO 3166 alpha-2 code B. ISO 3166 alpha-4 code C. alpha-3 ISO 639 code D. alpha-4 ISO 639 code
12. The atomic method includes memory consistency features similar to the simple arithmetic methods that apply to integer atomic variables. [1 Mark(s)]
A. Notify() B. Synchronize() C. compareAndSet() D. tryLock()
13. The package provides a framework for locking and waiting for conditions. [1 Mark(s)]
A. java.util.concurrent.locks
B. java.util.concurrent.Atomic C. java.util.concurrent
D. java.util.concurrent.Executors
14 is a subinterface of Executor and helps manage the development of the executor tasks and individual tasks. [1 Mark(s)]
A. RecursiveAction
B. ExecutorService C. ScheduledExecutorService
D. Executor
15. Localization is the process of adapting software for a specific or by adding locale-specific components and translating text. (Choose two correct answers) [1.5 Mark(s)]
A. Country
B. Region C. Culture
D. Language
16. Internationalization textual data such as messages and GUI component labels are and (Choose two correct answers) [1.5]

Mark(s)

- A. hardcoded
- B. not hardcoded
- C. received as input from the user
- D. dynamically read from properties file
- 17. Which one of the following should you use to create a compound message in the internationalization process? [1.5 Mark(s)]
 - A. Exception class
 - B. Enum class
 - C. MessageFormat class
 - D. Thread class
- 18. Which of the following interfaces provide methods to submit large collections Callable of objects. [1.5 Mark(s)]
 - A. ExecutorService
 - B. ScheduledExecutorService
 - C. RecursiveAction
 - D. Executor