PROGRAMMING IN JAVA

Assignment4

TYPE OF QUESTION: MCQ

Number of questions: 10 **Total mark: 10× 1 = 10**

QUESTION 1:

Which of the following is/are interface(s) of `java.awt` package?

a. CardLayout
b. Checkbox
c. Choice
d. MenuContainer

Correct Answer: d

Detailed Solution:
MenuContainer is interface of java.awt package, all others are class.

QUESTION 2:

Which of the following keyword is used to define a package in Java?

a. class
b. implements
c. extends
d. package

Correct Answer: d

Detailed Solution:

For example: `package mypack;`

Detailed Solution:

QUESTION 3:

Which of the following is/are true?

1) Every class is a part of some package.
2) All classes in a file are part of the same package.
3) If no package is specified, the classes in the file go into a special unnamed package.
4) If no package is specified, a new package is created with folder name of class and the class is put in this package.

a. Only 1, 2 and 3
b. Only 3 and 4
c. Only 1 and 3
d. Only 3

Correct Answer: a

Detailed Solution:
This according to the property of package concept in Java.

QUESTION 4:

Which of the following statement(s) is (are) CORRECT regarding an interface in Java?

a. An interface can contain only abstract methods and standard methods but no static methods are allowed.
b. Method bodies in an interface doesn't exist for default methods and abstract methods.
c. An interfaces cannot be instantiated but can be implemented by classes.
d. An interfaces cannot be instantiated but can be extended by other interfaces.

Correct Answer: c, d

Detailed Solution:

In the Java programming language, an interface is a reference type, similar to a class, which can contain only constants, method signatures, default methods, static methods, and nested types. Method bodies exist only for default methods and static methods. Interfaces cannot be instantiated—they can only be implemented by classes or extended by other interfaces.

QUESTION 5:

How Java Runtime Environment (JRE) knows where to look for a package that you create?

a. It searches in the current directory.
b. It searches in the location set in the CLASSPATH environment variable.
c. A user can set the path during runtime using the `–classpath` option.
d. Using the `–path` option, a user can set the path.

Correct Answer: a, b, c

Detailed Solution:

- First, by default, the Java run-time system uses the current working directory as its starting point. Thus, if your package is in a sub-directory of the current directory, it will be found.
- Second, you can specify a directory path or paths by setting the CLASSPATH environmental variable.
- Third, you can use the -classpath option with **java** and **javac** to specify the path to your classes.

QUESTION 6:

Which of the following is/are NOT correct regarding packages in Java?

a. Java supports both pre-defined and user-defined packages.
b. Packages are used to organize a set of related classes and interfaces.
c. Pre-defined packages help to develop programs easily by providing thousands of classes.
d. Packages are used to organize only a set of related classes and not interfaces.

Correct Answer: d

Detailed Solution:

A package is a namespace that organizes a set of related classes and interfaces. It is just like a folder in your computer, where, you might keep HTML pages in one folder, images in another, and scripts or applications in yet another. Since, Java programs can be composed of hundreds or thousands of individual classes, it makes sense to keep things organized by placing related classes and interfaces into packages.

QUESTION 7:

Which of the following package(s) stores all the standard java classes?

a. lang
b. java
c. util
d. java.packages

Correct Answer: b

Detailed Solution:

The`java` package stores all the standard java classes.

QUESTION 8:

Consider the program given below.

```
import java.lang.Math.*;
public class Main{
      public static void main(String args[]){

            System.out.println(PI*1/PI);
      }
}
```

What will be the output if the above programis executed?

a. It will give compile-time error
b. It will give run-time error
c. 1.0
d. 3.14

Correct Answer: a

Detailed Solution:

The static import statement is used to import the static members(e.g. ,PI) of java.lang.Math.
`import static java.lang.Math.*;`

QUESTION 9:

Which of the following statement(s) is/are NOT true?

a. The default package in the Java language is java.lang.
b. String is a final class and it is present in java.lang package.
c. Runnable is a class present in java.lang package.
d. Thread is a class present in java.lang package.

Correct Answer: c

Detailed Solution:

Runnable is an interface in java.lang package.

QUESTION 10:

Which of the following statement(s) is/are true?

a. With the import statement, generally import only a single package member or an entire package.
b. To import all the types contained in a particular package, use the import statement with the asterisk (*) wildcard character.

```
import  package.*;
```

c. import package.A*; it used to match a subset of the classes in a package starts with "A".
d. import package.A*; it generates compilation error.

Correct Answer: a,b,d

Detailed Solution:
import package.A*; it generates compilation error.

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