003-003507

B.C.A. (CBCS) Sem.-V Examination
December-2014
CS-25 : Advance Java Programming (J2EE) (New)

Faculty Code : 003
Subject Code : 003507

Time : 2½ Hours]   [Total Marks : 70

1. Attempt all MCQ answer :   **20**

    (1) What is the output of this program?

    import java. lang. reflect.*;

    class Additional_packages {

        public static void main(String args[]) {

            try {

                Class c = Class. forName("java.awt. Dimension");

                Constructor constructors[] = c.getConstructors();

                for (int i = 0; i < constructors. length; i++)

                    System. out. println(constructors[i]);

            }

            catch (Exception e){

            System. out. print("Exception");

            }

        }

    }

    (a) Program prints all the constructors of "Java. awt. Dimension' package.

    (b) Program prints all the possible constructors of class 'Class'.

    (c) Program prints "Exception"

    (d) Runtime Error

(2) What is the length of the application box made by this program ?

```
import java.awt.*;
import java.applet.*;
public class myapplet extends Applet {
    Graphic g;
    g.drawString("A Simple Applet", 20, 20);
}
```

(a) 20   (b) Default value

(c) Compilation Error   (d) Runtime Error

(3) What is the output of this program ?

```
import java.lang.reflect.*;
class AdditionaLpackages {
    public static void main(String args[]) {
        try{
            Class c = Class.forName("java.awt.Dimension");
            Field fields[] = c.getFields();
            for (int i = 0; i < fields.length; i + + )
                System.out.println(fields[i]);
        }
        catch (Exception e){
        System.out.print("Exception");
        }
    }
}
```

(a) Program prints all the constructors of 'java.awt.Dimension' package.

(b) Program prints all the methods of 'java.awt.Dimension' package.

(c) Program prints all the data members of 'java.awt.Dimension' package.

(d) Program prints all the methods and data member of 'java.awt.Dimension' package.

(4) What is the output of this program ?

```
import java.lang.reflect.*;
class Additional_packages {
    public static void main(String args[]) {
        try {
            Class c = Class.forName("java.awt.Dimension");
            Method methods[] = c.getMethods();
            for (int i = 0; i < methods.length; i + + )
                System.out.println(methods[i]);
        }
        catch (Exception e){
        System.out.print(" Exception");
        }
    }
}
```

(a) Program prints all the constructors of 'java.awt.Dimension' package.

(b) Program prints all the data members of 'java.awt.Dimension' package,

(c) Program prints all the methods of 'java.awt.Dimension' package.

(d) Program prints all the methods and data member of 'java.awt.Dimension' package.

(5) Under what circumstances might you use the yield method of the Thread class

(a) To allow a thread of higher priority to run

(b) To call on a waiting thread to allow it to run

(c) To call from the currently running thread to allow another thread of the same or higher priority to run

(d) To call from the currently running thread with a parameter designating which thread should be allowed to run

(6) DeflaterOutputStream and InflaterInputStream classes are available in which package ?

(a) java.io   (b) java.util

(c) java.util.zip   (d) java.io.zip

(7) When several threads act on object simultaneously and the result is reliable then it is known as

    (a) Boxing   (b) Unsynchronized

    (c) synchronized   (d) none of these

(8) What is the default buffer size used by any buffered class ?

    (a) 128 bytes   (b) 256 bytes

    (c) 512 bytes   (d) 1024 bytes

(9) FileOutputStream class store the data in the form of _____.

    (a) character   (b) file

    (c) bytes   (d) bit

(10) Action Servlet, RequestProcessor and Action classes are the components of

    (a) View   (b) Model

    (c) Controller   (d) Deployment

(11) Application module selection is done by

    (a) Action class

    (b) RequestProcessor

    (c) ActionServlet

    (d) All of the above

(12) struts framework is

    (a) should always decouple the application from a specific model implementation

    (b) provides model components

    (c) does not support JavaBeans and EJB

    (d) has built-in support for the model

(13) which of the following tags in struts-config.xml file defines the availability of necessary Struts JSP custom tag libraries ?

    (a) < taglib>   (b) < struts-taglib>

    (c) < jsp-lib>   (d) < jsp-taglib>

(14) Which tag is used along with uri, to specify the tiles framework's .tld file ?

(a) < %@taglib uri = "/WEB-INF/tiles.tld" prefix="tiles"%>

(b) < %@taglib url = "/WEB-INF/tile.tld" prefix="tiles"%>

(c) < %@taglibs uri = "/WEB-INF/tiles.tld" prefix="tiles"%>

(d) < %@taglib uri="/WEB-INF/tlds/tiles.tld" prefix="tiles"%>

(15) Which of the following acts as a bridge connection between user-invoked URI and business method ?

(a) Action class   (b) HttpRequest

(c) ActionServlet   (d) RequestProcessor

(16) Which http method send by browser that gives the server what user data typed in the form ?

(a) put   (b) post

(c) get   (d) none of these

(17) What is the limitation of creating ActionServlet instances per web application ?

. (a) Two   (b) One

(c) Unlimited   (d) Three

(18) Which of these methods are member of Remote class ?

(a) checklP()

(b) addLocation()

(c) AddServer()

(d) None of the mentioned

(19) Which of these class is used for creating a client for a server-client operations ?

(a) serverClientjava   (b) Client.java

(c) ServerClient.java   (d) AddClient.java

(20) Which of the following methods is overridden by Action Class ?

(a) destroy()   (b) service()

(c) run()   (d) execute()

2.   (A)   Attempt any **Three** :   6

   (1)   What is difference between LookupDispatchAction and DispatchAction ?

   (2)   Explain different types of JDBC Driver Managers.

   (3)   Write an exhaustive note on "Design pattern of Java Beans".

   (4)   Explain 4 ways of session tracking in servlet.

   (5)   According to JSP terminology, how do you forward a page request ?

   (6)   Explain the significance of Java beans.

   (B)   Attempt any **Three** :   9

   (1)   Explain RMI Architecture.

   (2)   How will you pass values from HTML page to the servlet ?

   (3)   What are the difference between ForwardAction and IncludeAction ?

   (4)   What are the difference between RMI and Servlets ?

   (5)   What is the difference between RMI registry and OS Agent ?

   (6)   Explain Servlet lifecycle.

   (C)   Attempt any **Two** :   10

   (1)   Write a servlet to print the Armstrong number which are in the range of 101 –999 (for example 153 is an armstrong number $1^3 + 5^3 + 3^3 = 153$)

   (2)   Write a program on RMI and JDBC using Stored Procedure.

   (3)   Write a code segment to create connection to an access mysql database through a Java server page and display list of tables in the database. Assume suitable data.

   (4)   Write a program to create an JSP page that will accept values of three test marks i.e. testl, test2, test3, each out of 25. The user will enter the marks in three Separate text fields. The JSP page will have a button labelled "Find average". When the user will click on the button, the average of test marks will be displayed in the fourth text field.

   (5)   Write a program to demonstrate passing and retrieving values of parameter to a servlet.

3. (A) Attempt any **Three** : 6

    (1) Explain RMI stub and skeleton.

    (2) Explain types of EJB.

    (3) Explain ResultSetMetaData and DatabaseMetaData.

    (4) Explain JSP lifecycle.

    (5) Explain Features of Hibernate.

    (6) Explain spring Framework definition.

(B) Attempt any **Three** : 9

    (1) Why session management is necessary? Discuss in detail about several session management techniques.

    (2) What are the difference between servlet's doGet() and doPost() method ?

    (3) What are the different features of Java bean ?

    (4) What is JSP ? Why JSP is slower than servlet ? Create a JSP program to access a Java Bean.

    (5) What is the role of servlet in web application ? What are the differences between HttpServlet and GenericServlet? Create the structure of deployment discripter web.xml.

    (6) What are the differences between Statement and Prepared Statement interface ? Create a JDBC program to update data into database using PreparedStatement and type - 1 driver.

(C) Attempt any **Two** : 10

    (1) Explain JSP architecture.

    (2) Explain cons and pros of hibernate.

    (3) Explain Hibernate Configuration file.

    (4) Explain Inheritance Annotations.

    (5) Explain Struts Flow of Control.

    (6) What is the life cycle of ActionForm struts ?