TEXAS COLLEGE OF MANAGEMENT

AND IT

MID TERM EVALUATION

Class - BIT 4th Semester (Sec B + D) Set-1

Subject : JAVA

SECTION - A   **30 * 1 = 30**

Multiple Choice Question

1. **Which of the following languages was developed as the first purely object programming language?**
   a. **SmallTalk**
   b. C++
   c. Kotlin
   d. JAVA

2. **Servlet is a ……………. Framework?**

   a. Desktop Application

   b. **Web Application**

   c. Mobile Application

   d. Linux Application

3. **What does the expression float a = 35 / 0 return?**

   a. 0

   b. Not a number

   c. **Infinity**

   d. Run time exception

4. **CGI starts new …………. For each request.**

   a. Thread

   b. **Process**

   c. Request

   d. Response

5. **Which of the following is not a session tracking method?**

   a. URL Rewriting

b. **History**

c. Cookies

d. SSL Sessions

6. **Evaluate the following Java expression, if x=3, y=5, and z=10:**

    ++z + y - y + z + x++

    a. 24

    b. 23

    c. 20

    d. **25**

7. **What will be the output of the following program?**

    public class Test {

        public static void main(String[] args) {

          int count = 1;

          while (count <= 15) {

            System.out.println(count % 2 == 1 ? "***" : "+++++");

            ++count;

        }   // end while

      }   // end main

    }

    a. 15 times ***

    b. 15 5imes +++

    c. **8 times *** and 7 times +++**

    d. Both will print only once

8. **Which of these is the correct way of inheriting class A by class B?**

    a. class B + class A {}

    b. class B inherits class A {}

c. **class B extends A {}**

d. class B extends class A {}

9. When do Exceptions in Java arise in code sequence?

a. **Run Time**

b. Compilation Time

c. Can Occur Any time

d. None of the above

10. Which of these keywords is not a part of exception handling?

a. try

b. finally

c. **thrown**

d. catch

11. Which of the following is a true statement?

a. Error can be handled.

b. Error happens at compile time.

c. **Errors are unchecked type.**

d. Error caused by application itself.

12. Which of the following code is used to get names of the parameters in servlet?

a. **request.getParametersName()**

b. response.getParametersName()

c. Header.getParametersName()

d. None of the above.

13. Which of the following is stored at the client side?

a. URL rewriting

b. Hidden from fields

c. SSL Sessions

d. **Cookies**

14. Which is not an exception in Java?

    a. Arithmetic

    b. NullPointer

    c. FileNotFound

    d. Assertion

15. How many exceptions can be thrown using the "Throw" keyword?

    a. 2

    b. 1

    c. 4

    d. As many as we can.

16. An Interface in JAVA is like a 100% _____ .

    a. abstract class

    b. public class

    c. inner class

    d. anonymous class

17. Choose Correct statement about Java Interface.

    a. Interface contains only abstract methods by default.

    b. A java class can implement multiple interfaces.

    c. An interface can extend or inherit another interface.

    d. All the above.

18. An abstract class in JAVA usually contains one or more abstract _____ .

    a. constructors

    b. methods

    c. variables

    d. none

19. Which of these methods of class File is used to find the length of the file?

    a. length()

    b. len()

c. capacity()

d. size()

20. Which of the following is false in File Handling?

    a. mkdir()

    b. list()

    c. createFile()

    d. getName()

21. Which of the following is the correct form of File constructor?

    a. File()

    b. File(int size)

    c. File("record.txt")

    d. File(record.txt)

22. Use of "super" Keyword

    a. super can be used to refer to an immediate parent class instance variable.

    b. super can be used to invoke the immediate parent class method.

    c. super() can be used to invoke immediate parent class constructor.

    d. All of the above

23. What happens if we inherit two or more classes in JAVA?

    a. Compile Time Error invokes

    b. Run Time Error Occurs

    c. IOException Occurs

    d. StackOverFlowError Occurs

24. What exception will the given below function throw?
int a = 100/0;

    a. ArithmeticException

    b. ArrayIndexOutOfBoundException

    c. NullPointerException

    d. FileNotFoundException

25. What is a superclass?

a. Child Class

b. The class being inherited from.

c. The class that inherits from another class.

d. The class that inherits another class.

26. **Which of the following code is used to delete a HTTP Session object in servlets?**

    a. session.invalidate()

    b. response.deleteSession()

    c. request.deleteSession()

    d. None of the above

27. **What is Hierarchical Inheritance?**

    a. When a class inherits another class.

    b. Chain of inheritance.

    c. When two or more class inherit a single class.

    d. When a single class inherits multiple class.

28. **Which of the following is true about the init() method of servlet?**

    a. The init() method simply creates or loads some data that will be used throughout the life of the servlet.

    b. The init() method is not called again and again for each user request.

    c. Both of above

    d. None of above

29. **Which of these exceptions is thrown in cases when the file specified for writing is not found?**

    a. IOException

    b. FileException

    c. FileNotFoundException

    d. FileInputException

30. **Which of these methods are used to read in from a file?**

    a. get()

b. **read()**

c. write()

d. readFileInput()

SECTION - B   5 * 6 = 30
Answer any 5 out of 8 Questions.

1. What is Class and Object? Explain with an Example. Briefly Explain Chain of Constructor with examples. (1+2+3) (**Unit 1 : Elements of Java Language**)

2. What is inheritance? What is the type of Inheritance? Which Inheritance is not supported by JAVA and what is an alternative for this problem? (1+3+1+1) (**Unit 2 : OOP in JAVA**)

3. What is the difference between Interface and Abstract Class? Write a program of encapsulation which takes student_id,student_name,student_address. (3+3) (**Unit 2 : OOP in JAVA**)

4. Explain Method Overloading and Method Overriding in JAVA with examples. (6) (**Unit 2 : OOP in JAVA**)

5. What is file Handling? Explain different operations in file handling. (1+5) (**Unit 3 : Exception, Stream & I/O**)

6. What is an exception? How is it handled? Explain with examples. (6) (**Unit 3 : Exception, Stream & I/O**)

7. Define Servlet Technology. What are the cons of CGI? What are the pros of Servlet? (1+2+3) (**Unit 5 : JAVA Servlets**)

8. Explain the following terms. (3+3) (**Unit 5 : JAVA Servlets**)

   a. Cookies

   b. Session

SECTION - C   **20 * 2 = 40**

Answer any 2 out of 3 Questions

1. Explain the OOP Concept with examples of each. Why is multiple inheritance not supported in JAVA? Explain with examples and the solution for multiple inheritance in JAVA. (15 + 2 + 3)

2. Explain the hierarchy of Exceptions with figures. What is the difference between error and exception? Write a program to throw a user defined exception "String Mismatch" if two strings are not equal. (10 + 3 + 7)

3. Create a file name of **student_record.txt** and write name,email,address,phone,roll number in file. Write a program in servlet by creating **index.html** a form which takes username and password and displays the username and password on button submit **(Login.java)**. (10 + 10)