

MID-TERM EXAMINATION PAPER

FACULTY : COMPUTER SCIENCE AND MULTIMEDIA

COURSE : BACHELOR OF INFORMATION TECHNOLOGY (BIT)

YEAR/ SEMESTER : SECOND YEAR / FOURTH SEMESTER

MODULE TITLE : JAVA PROGRAMMING

CODE :

DATE : 27th FEBURARY 2022

TIME ALLOWED : 3 HOURS

START : 6:30AM – 9:30 AM

SET : B

Instruction to candidates

1. This question paper has THREE (3) Section
2. Answer **ALL** questions in Section A, MCQ.
3. Answer **5** questions in Section B, MSAQ
4. Answer **2** questions in Section C, MEQ
5. No scripts or answer sheets are to be taken out of the Examination Hall.
6. For Section A, answer in the OMR form provided.

Do not open this question paper until instructed.

(Candidates are required to give their answers in their own words as far as practicable)

SECTION A

Multiple Choice Questions

(30*1=30)

1. Which of the following is not an OOPS concept?
 - a. Encapsulation
 - b. Polymorphism
 - c. Exception
 - d. Abstraction

2. Which feature of OOPS described the reusability of code?
 - a. Abstraction
 - b. Encapsulation
 - c. Polymorphism
 - d. Inheritance

3. What does the expression `float a = 35 / 0` return?
 - a. 0
 - b. Not a number
 - c. Infinity
 - d. Run time exception

4. The cookie manipulation is done using which property?
 - a. Cookies
 - b. Cookie
 - c. Modify
 - d. Manipulate

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. What concepts come under Polymorphism in java?

- a. Method overloading
- b. Constructor overloading
- c. Method overriding
- d. All the above

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. What is constructor in JAVA?

- a. It is an object of code.
- b. It is a recursive block of code.
- c. It is a block of code like method.
- d. All of the above.

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 error?

a. StackOverflow

b. OutOfMemory

c. Linkage

d. ArrayIndexOutOfBoundsException

15. Which is not an exception in Java?

a. Arithmetic

c. FileNotFoundException

b. NullPointerException

d. Assertion

16. How many exceptions can be thrown using the “Throw” keyword?

a. 2

c. 4

b. 1

d. As many as we can.

17. Which is not an Inheritance of JAVA?

a. Single Inheritance

c. Multilevel Inheritance

b. Multiple Inheritance

d. Hierarchical Inheritance

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

a. abstract class

c. inner class

b. public class

d. anonymous class

19. 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.

20. An Abstract class in JAVA can be created using the keyword_____.

- a. final
- b. interface
- c. abstract
- d. static

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

- a. length()
- b. len()
- c. capacity()
- d. size()

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

- a. mkdir()
- b. list()
- c. createFile()
- d. getName()

23. 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)

24. 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

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

- a. ArithmeticException
- b. ArrayIndexOutOfBoundsException
- c. NullPointerException
- d. FileNotFoundException

26. What exception will the given below function throw?

```
int[] a = {5,3,2,9};  
for(int i = 0; i <= a.length; i++) {  
    System.out.println("Execute : "+a[i])  
}
```

- a. ArithmeticException
- b. ArrayIndexOutOfBoundsException
- c. NullPointerException
- d. FileNotFoundException

27. What is a subclass?

- a. Parent Class
- b. The class being inherited from.
- c. The class that inherits from another class.
- d. The class that inherits another class

28. 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

29. 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.

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

- a. IOException
- b. FileNotFoundException
- c. FileInputException
- d. FileOutputException

SECTION B

Short Answer Questions

Answer any five (5) questions out of eight (8) questions. (5*6=30)

1. Explain variable and member function with suitable Example. Briefly Explain Chain of Constructor with examples. (3+3) (Unit 1 : Elements of Java Language)
2. Under what oop concept does superclass and subclass come under? 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. Write an example of interface and abstract class? Write a program of encapsulation which takes employee_id,employee_name,employee_salary. (3+3) (Unit 2 : OOP in JAVA)
4. Explain Polymorphism with examples. (6) (Unit 2 : OOP in JAVA)
5. How do you define File Handling in Java? Explain different operations in file handling. (1+5) (Unit 3 : Exception, Stream & I/O)
6. What is servlet? Explain the life cycle of servlets?. (1+5) (Unit 5 : JAVA Servlets)

7. Explain the following terms. (3+3) (Unit 5 : JAVA Servlets)
 - a. Cookies
 - b. Session
8. Explain following terms with respect to Exception. (6) (Unit 3 : Exception, Stream & I/O)
 - a. try
 - b. catch
 - c. throw
 - d. finally

SECTION C

Long Answer Questions

Attempt any two (2) questions out of three (3) questions. (2*20=40)

1. Explain the OOP Concept with examples of each. Write a program to satisfy the perfect example of Inheritance must have at least 3 class.. (13 + 7)
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 two inputs and displays the sum on submit (Add.java). (10 + 10)