

**MASTER OF COMPUTER APPLICATION  
THIRD SEMESTER (REPEAT)  
PROGRAMMING WITH JAVA  
MCA-304**

**Duration: 3 Hrs.**

**Marks: 70**

PART : A (OBJECTIVE) = 20  
PART : B (DESCRIPTIVE) = 50

**[ PART-B : Descriptive ]**

**Duration: 2 Hrs. 40 Mins.**

**Marks: 50**

**[ Answer question no. One (1) & any four (4) from the rest ]**

1. Describe the complete life cycle of a thread with suitable a diagram. (10)
2. What is an applet? How do applets differ from application programs? (2+4+4=10)  
Write an applet program to find sum of two numbers.
3. What is thread? Explain the concept of multiprocessing and multithreading. Explain how AWT is different from Swing. (2+4+4=10)
4. List at least five major differences between C++ and Java. How Java is strongly associated with the internet? Write a program to Count the total number odd and even digit of a given number. (3+3+4=10)
5. What is an exception? Explain the types of error. List some of the most common types of exception that might occur in java with example. Write a program to implement Arithmetic Exception. (2+2+3+3=10)
6. What is socket programming? Explain the steps for establishing TCP connection between two computers using sockets. What is an interface? Write a java program to find area of a rectangle and circle using interface. (2+2+2+4=10)
7. What is a stream? How are the stream classes classified explain with example. Explain how constructor and destructor differ from normal function. (2+4+4=10)
8. What is Inheritance and how does it help us to create new classes quickly. Write a program to implement single inheritance in java. (5+5=10)

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**[ PART-A : Objective ]**

**Choose the correct answer from the following:**

**1×20=20**

1. In Java arrays are:
  - a. Objects.
  - b. Object reference.
  - c. Primitive data type.
  - d. None of the above.
2. Which of the following keyword is used to define package in Java?
  - a. pkg
  - b. Pkg
  - c. package
  - d. Pakage
3. The command javac:
  - a. Convert a java program into binary code.
  - b. Convert a java program into byte code.
  - c. Convert a java program into machine language.
  - d. None of the above.
4. Which of the function is called to display the output of an applet?
  - a. display()
  - b. paint()
  - c. displayApplet()
  - d. paintApplet()
5. Which method will a web browser call on a new applet?
  - a. main method
  - b. destroy method
  - c. execute method
  - d. init method
6. Which class cannot be sub classed (or extended) in java?
  - a. Abstract class
  - b. Final class
  - c. Parent class
  - d. None of the above
7. The new operator in java:
  - a. Returns a pointer to a variable.
  - b. Creates a variable called new.
  - c. Tell compiler how much memory is available.
  - d. Obtains memory for a new variable.
8. What does the AWT stands for?
  - a. Abstract Windows toolkit.
  - b. Application with types.
  - c. A web toolkit.
  - d. Absolutely wonderful toolkit.
9. Which among the following is the compulsory section of java program?
  - a. Package statement.
  - b. Import statement.
  - c. Class declaration section.
  - d. Documentation section.
10. Which of the following keyword must be used to monitor exceptions?
  - a. try
  - b. through
  - c. catch
  - d. finally
11. Command to execute a compiled java program is:
  - a. javac
  - b. java
  - c. run
  - d. execute
12. Java programs are:
  - a. Platform independent.
  - b. Interpreter dependent.
  - c. Platform independent.
  - d. Interpreter independent.
13. Which will legally declare, construct and initialize an array?
  - a. `int [] mylist = {"1", "2", "3"};`
  - b. `int [] mylist = (5, 8, 2);`
  - c. `int mylist [ ] [ ] = {4, 9, 7, 0};`
  - d. `int mylist [ ] = {4, 3, 7};`
14. What is byte code in java?
  - a. Code generated by a java compiler.
  - b. Code generated by a java virtual machine.
  - c. Name of java source code file.
  - d. Block of code written inside a class.

15. Which one is a template for creating different objects?
  - a. An array
  - b. A class
  - c. Interface
  - d. Method
16. Which one is true about a constructor?
  - a. A constructor must have the same name as the class it is declared within.
  - b. A constructor is used to create objects.
  - c. Constructor never return a value not even void.
  - d. All of the above.
17. When exception in java does arise in code sequence?
  - a. Run time.
  - b. Compile time.
  - c. Can occur any time.
  - d. None of the mentioned.
18. Which of the following is correct way of implementing an interface salary by class manager?
  - a. class manager extends salary { }
  - b. class manager implements salary { }
  - c. class manager imports salary { }
  - d. All of the above
19. Which of this package contain all the collection classes?
  - a. java.lang
  - b. java.net
  - c. java.util
  - d. java.awt
20. Which of these is used to perform all input and output operations in java?
  - a. streams
  - b. variables
  - c. classes
  - d. methods

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# UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



**[PART (A) : OBJECTIVE]**

Duration : 20 Minutes

Serial no. of the  
main Answer sheet

Course : .....

Semester : ..... Roll No : .....

Enrollment No : ..... Course code : .....

Course Title : .....

Session : ..... 2017-18 ..... Date : .....

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### Instructions / Guidelines

- The paper contains twenty (20) / ten (10) questions.
- Students shall tick (✓) the correct answer.
- No marks shall be given for overwrite / erasing.
- Students have to submit the Objective Part (Part-A) to the invigilator just after completion of the allotted time from the starting of examination.

Full Marks	Marks Obtained
20	

Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature