

**Exam. Code : 208604**

**Subject Code : 4486**

**M.Sc. Information Technology 4<sup>th</sup> Semester**

**ADVANCED JAVA TECHNOLOGY**

**Paper—MIT-401**

Time Allowed—2 Hours] [Maximum Marks—100

Note :— Attempt any *four* questions. All questions carry equal marks.

1. Explain the use of `Bytestream` class and `Characterstream` class using suitable example.
2. (a) What is the purpose of `file` class ? Discuss various constructors used for constructing `File` objects.  
(b) Write a program that will read a file of `Int` type numbers, sort them in descending order and output the sorted data into second file.
3. (a) Using an example, explain how thread is created using `Runnable` class.  
(b) What is `Thread Priority` ? How can a priority be assigned to a thread ?
4. (a) Discuss the various attributes of the `<Applet>` tag. How parameters can be passed to applets ?  
(b) Write an `Applet` that asks the user to input three numbers and then display the smallest and greatest of these numbers.

5. (a) Every event class is associated with an Event Listener Interface. Explain using suitable example.  
(b) Write a program that uses four buttons 'Left', 'Right', 'Up', 'Down' to control the movement of a circle. The buttons should be in the North and panel should be in center.
6. (a) With the help of an example, add colors to a GUI program.  
(b) What is Font Metric ? Explain the use of Font metrics class using an example.
7. (a) Write down the steps for creating a servlet code.  
(b) Develop the HTTP servlet that display current time and date.
8. (a) Write down the steps for sending Cookies using suitable example.  
(b) Write a servlet that uses Cookies to detect whether the visitor is a first time visitor or repeated visitor.