



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad -500 043

## INFORMATION TECHNOLOGY

### ASSIGNMENT QUESTIONS

**Course Name** : JAVA PROGRAMMING  
**Course Code** : A40503  
**Class** : II B. Tech II Semester  
**Branch** : Information Technology  
**Year** : 2016 – 2017  
**Course Faculty** : Mr. G Chandra Sekhar , Assistant Professor

#### OBJECTIVES

To meet the challenge of ensuring excellence in engineering education, the issue of quality needs to be addressed, debated and taken forward in a systematic manner. Accreditation is the principal means of quality assurance in higher education. The major emphasis of accreditation process is to measure the outcomes of the program that is being accredited.

In line with this, Faculty of Institute of Aeronautical Engineering, Hyderabad has taken a lead in incorporating philosophy of outcome based education in the process of problem solving and career development. So, all students of the institute should understand the depth and approach of course to be taught through this question bank, which will enhance learner's learning process.

S. No.	Question	Blooms Taxonomy Level	Programme Outcome
<b>UNIT – I</b>			
1	<b>Describe</b> about the Object Oriented Programming concepts.	Understand	1,2,3
2	<b>What</b> is the Difference between procedure oriented and object oriented programming paradigm?	Remembering	1,2,3
3	<b>Explain</b> briefly about History of JAVA.	Understanding	1,2,3
4	<b>Explain</b> about different constants available in java.	Understanding	1,2,3
5	<b>What</b> is variable? Write briefly about different types of variables in Java.	Remembering	1,2,3
6	<b>Explain</b> about different parameter passing techniques in java.	Understanding	1,2,3
7	<b>What</b> is garbage collection? Explain its usage.	Remembering	1,2,3
8	<b>Explain</b> about static fields, constructors, methods with example programs.	Understanding	1,2,3
9	<b>Explain</b> about type conversion and casting with example programs.	Understanding	1,2,3
10	<b>Describe</b> about different operators and data types in java.	Understand	1,2,3
<b>UNIT – II</b>			
1	<b>Describe</b> Inheritance? Discuss its uses, Hierarchical abstractions with an example.	Understanding	4
2	<b>What</b> are different types of inheritances in java? <b>Explain</b> each of them in detail with necessary example.	Remembering	4
3	<b>Explain</b> about Object class in detail.	Understanding	4

S. No.	Question	Blooms Taxonomy Level	Programme Outcome
4	<b>What</b> is the use of ‘Super’ keyword, discuss accessing the member of a super class.	Understanding	4
5	<b>Describe</b> package? Discuss its advantages? <b>Explain</b> with example.	Remembering	4
6	<b>Explain</b> different Types of Packages. <b>Explain</b> in detail about Creating, importing packages.	Understanding	4
7	<b>What</b> is method overriding? <b>Explain</b> with an example program.	Remembering	4
8	<b>Explain</b> the usage of abstract classes and methods?	Understanding	4
9	<b>Define and Describe</b> interface? How a interface can be implemented explain with example program.	Remembering	4
10	<b>Explain</b> about inner classes, anonymous inner classes, and static inner classes with an example program?	Understanding	4
<b>UNIT – III</b>			
1	<b>Explain</b> creation of thread using runnable interface and extending thread class with an example.	Understanding	5,6
2	<b>Write</b> a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.	Understanding	5,6
3	<b>Develop</b> a Java program that creates three threads. First thread displays “Good Morning” every one second, the second thread displays “Hello” every two seconds and the third thread displays “Welcome” every three seconds.	Creating	5,6
4	<b>Explain</b> about thread interrupts with an example.	Understanding	5,6
5	<b>What</b> is an Exception? Explain how an exception can be handled in Java? Also list the benefits of exception handling.	Remembering	
6	<b>What</b> are Checked and Unchecked Exceptions? And also explain differences.	Remembering	5,6
7	<b>Develop</b> and explain with an example, how java performs thread synchronization?	Applying	5,6
8	<b>Discuss</b> the usage of try, catch, finally, throw, and throws in Exception Handling with necessary examples.	Creating	5,6
9	<b>What</b> is thread? Explain the life cycle of a thread with necessary examples.	Remembering	5,6
10	<b>Compare</b> and Contrast Multi-tasking and Multi-threading	Understanding	5,6
<b>UNIT – I V</b>			
1	<b>Explain</b> the Java Collection frame work with an hierarchy	Understanding	7,8
2	<b>Discuss</b> briefly about ArrayList and Vector classes with examples.	Creating	7,8
3	<b>What</b> is hash table? Explain its importance with examples.	Remembering	7,8
4	<b>Explain</b> enumeration and iterator with an example.	Understanding	7,8
5	<b>Discuss</b> about StringTokenizer class.	Creating	7,8
6	<b>Explain</b> Random and scanner with examples.	Understanding	7,8
7	<b>Explain</b> in details about calendar class and also discuss its properties.	Understanding	7,8
8	<b>Develop</b> a Java program that reads a file name from the user, then displays information about whether the file exists, whether the file is readable, whether the file is writable, the type of file and the length of the file in bytes	Creating	7,8
9	<b>Explain</b> binary input/output file operations and random access file operations and Develop a Java program to implement character streams (reader classes).	Understanding	7,8

S. No.	Question	Blooms Taxonomy Level	Programme Outcome
10	<b>Explain</b> different types of JDBC drivers with diagrams and <b>Write</b> a Java Program that connects to a database using JDBC and does add, delete, modify and retrieve operations.	Understanding	7,8
<b>UNIT – V</b>			
1	<b>Explain</b> in detail about hierarchy for Swing and AWT?	Understanding	9,10
2	<b>How</b> parameters are passed to an applet explain with an example program.	Remembering	9,10
3	<b>Develop</b> an applet that receives an integer in one text field and computes its factorial value and returns it in another text field, when the button named “compute” is clicked using swing components?	Creating	9,10
4	<b>Develop</b> an applet that receives an integer in one text field and computes its factorial value and returns it in another text field, when the button named “compute” is clicked using awt components?	Creating	9,10
5	<b>Define</b> JFrame, JApplet, JDialog and JPanel, JButton, JLabel, JTextField and JTextArea? <b>Write</b> a java program that simulates a traffic light. The program lets the user select one of three lights: red, yellow, or green with radio buttons. On selecting a button an appropriate message with “STOP” or “READY” or ”GO” should appear above the buttons in selected color. Initially, there is no message shown	Creating	9,10
6	<b>Discuss</b> in detail about different types of layout manager. <b>Write</b> a Java program that works as a simple calculator. Use a grid layout to arrange buttons for the digits and for the +,-,*, % operations. Add a text field to display the result. Handle any possible exception like divided by zero	Creating	9,10
7	<b>Explain</b> in detail about Delegation event model? And also discuss the relationship between Event sources and Listeners?	Understanding	9,10
8	<b>Develop</b> a java program for handling mouse events and keyboard events with an example program.	Creating	9,10
9	<b>Demonstrate</b> applet life cycle? Difference between applet and application?	Understanding	9,10
10	<b>Demonstrate</b> applet security issues?	Understanding	9,10

Prepared by:

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