LESSON PLAN:

Theory – 1hour per week (15 hours in semester)

Lab – 4hours per week (60 hours in semester)

Total=5 hours per week (75 hours in semester)

Sno	MODULE	Hour	Topic
WEEK-1			
1	1	1	**Subject Introduction** **Java Basics - OOP Paradigm- Features of Java Language - JVM - Bytecode**
2	1	1	**Java Programming Structure**
3	1	1	**Basic programming constructs- data types - variables – Java naming conventions**
4	1	1	**Operators**
5	1	1	PRACTICE
WEEK-2			
6	2	1	**Looping Constructs and Arrays** Control
7	2	1	looping constructs
8	2	1	looping constructs
9	2	1	looping constructs – enhanced loop
10	2	1	Array
WEEK-3			
11	2	1	One dimensional
12	2	1	Multi dimensional
13	2	1	Strings
14	2	1	Strings, Wrapper class
15	2	1	PRACTICE
WEEK-4			
16	2	1	PRACTISE
17	PAT 1	1	Module 1,2
18	PAT 2	1	
19	3	1	**Classes and Objects** Class fundamentals – Access and non-access specifiers – Declaring objects and assigning object reference variables
20	3	1	Class fundamentals – Access and non-access specifiers – Declaring objects and assigning object reference variables
WEEK-5			
21	3	1	Class fundamentals – Access and non-access specifiers – Declaring objects and assigning object reference variables
22	3	1	array of objects
23	3	1	Constructors and destructor

24	3	1	Usage of “this” and “static” keywords
25	3	1	“static” keywords
WEEK-6			
26	3	1	PRACTICE
27	3	1	PRACTICE
28	PAT 3	1	Module 3
29	4	1	**Inheritance and Polymorphism** Inheritance – types, – use of “super” – final keyword
30	4	1	Inheritance – types, – use of “super” – final keyword
WEEK-7			
31	4	1	Inheritance – types, – use of “super” – final keyword
32	4	1	Polymorphism-Overloading and Overriding
33	4	1	Polymorphism-Overloading and Overriding
34	4	1	abstract class
35	4	1	Interfaces
WEEK-8			
36	4	1	Interfaces
37	4	1	PRACTICE
38	4	1	PRACTICE
39	PAT 4	1	Module 4
40	5	1	**Packages and Exception handling** Packages: Creating and Accessing – Sub packages. Exception Handling – Types of Exception – Control flow in Exceptions – Use of try, catch, finally, throw, throws in Exception handling - User defined exceptions
WEEK-9			
41	5	1	Packages: Creating and Accessing – Sub packages
42	5	1	Exception Handling – Types of Exception – Control flow in Exceptions – Use of try, catch, finally, throw, throws in Exception handling - User defined exceptions
43	5	1	Exception Handling – Types of Exception – Control flow in Exceptions – Use of try, catch, finally, throw, throws in Exception handling - User defined exceptions
44	5	1	Exception Handling – Types of Exception – Control flow in Exceptions – Use of try, catch, finally, throw, throws in Exception handling - User defined exceptions

45	5	1	Exception Handling – Types of Exception – Control flow in Exceptions – Use of try, catch, finally, throw, throws in Exception handling - User defined exceptions
WEEK-10			
46	5	1	PRACTICE
47	5	1	PRACTICE
48	5	1	PRACTICE
49	MAT	1	Module 1,2,3,4
50	MAT	1	
WEEK-11			
51	6	1	Java I/O Streams – FileInputStream & FileOutputStream – FileReader & FileWriter – DataInputStream & DataOutputStream – BufferedInputStream & BufferedOutputStream – PrintOutputStream
52	6	1	Java I/O Streams – FileInputStream & FileOutputStream – FileReader & FileWriter – DataInputStream & DataOutputStream – BufferedInputStream & BufferedOutputStream – PrintOutputStream
53	6	1	Java I/O Streams – FileInputStream & FileOutputStream – FileReader & FileWriter – DataInputStream & DataOutputStream – BufferedInputStream & BufferedOutputStream – PrintOutputStream
54	6	1	Serialization and Deserialization
55	6	1	PRACTICE
WEEK-12			
56	6	1	PRACTICE
57	6	1	PRACTICE
58	PAT 5	1	Module 5
59	PAT 6	1	Module 6
60	7	1	**Collection framework** Generic classes and methods – Collection framework: List and Map.
WEEK-13			
61	7	1	Generic classes and methods – Collection framework: List and Map.
62	7	1	Generic classes and methods – Collection framework: List and Map.

63	7	1	Generic classes and methods – Collection framework: List and Map.
64	7	1	Generic classes and methods – Collection framework: List and Map.
65	7	1	Generic classes and methods – Collection framework: List and Map.
WEEK-14			
66	7	1	PRACTICE
67	7	1	PRACTICE
68	7	1	PRACTICE
69	PAT-7	1	Module 7
70	REVISION		
WEEK-15			
71	FAT	2 (1-Lab session)	Module 1 to 7
72			
73			
74			
75			

Note:

By WEEK-4 PAT1,2 needs to be conducted

By WEEK-8 PAT3,4 needs to be conducted

By WEEK-10 MAT needs to be conducted

By WEEK-12 PAT5,6 needs to be conducted

By WEEK-14 PAT7 needs to be conducted

ASSESSMENT COMPONENTS:

PAT (Periodic Assessment Test) – one HOT coding question (10 marks for each PAT) 45min

MAT (Midterm Assessment Test) – two HOT coding question (2 X 20=40 marks), Quiz (1 X 10=10 marks) =50 marks

FAT (Final Assessment Test) – two HOT coding question (2 X 20=40 marks), Quiz (1 X 10=10 marks) =50 marks

VTOP MARK CONFIGURATION:

Component	Max Marks	Weightage (%)
PAT1	10	5
PAT2	10	5
PAT3	10	5
PAT4	10	5
PAT5	10	5
PAT6	10	5
PAT7	10	5
MAT	50	25
FAT	50	40
	Total Weightage	100

***Weightage must be common to all slots

GENERAL GUIDELINES:

All the assessment components (PAT, MAT, FAT) must be conducted only during lab session and not during theory hour

MAT to be conducted during one lab session

FAT to be conducted according to Academic calendar in the last week during one lab session

Lab session must be used for teaching and conducting assessments

Theory session is a practice session