

# Training Syllabus (Android)

## Lecture wise

## Foundation of 'C'

L.N.	Contents	Hours
1	1) Introduction of programming 2) Translator 3) Introduction of 'C' 4) History of 'C' 5) C tokens <ul style="list-style-type: none"> <li>a. Keywords</li> <li>b. Identifiers</li> <li>c. Variables/Constant</li> <li>d. Data types</li> <li>e. Operators</li> <li>f. Function</li> <li>g. Header Files</li> </ul>	2
2	1) Decision making statements <ul style="list-style-type: none"> <li>a. If               <ul style="list-style-type: none"> <li>i. Simple if</li> <li>ii. Else if</li> <li>iii. Nested if</li> <li>iv. Else if ladder</li> </ul> </li> <li>b. Switch case</li> <li>c. Goto</li> </ul> 2) Looping statements / Iterative statements <ul style="list-style-type: none"> <li>a. While loop</li> <li>b. For loop</li> <li>c. Do while loop</li> </ul>	2
3	1) Array <ul style="list-style-type: none"> <li>a. Single Dimensional Arrays</li> <li>b. Double Dimensional Arrays</li> </ul> 2) String <ul style="list-style-type: none"> <li>a. String Handling</li> <li>b. String Function</li> </ul>	2

4	<p><b>1) Function</b></p> <ul style="list-style-type: none"> <li>a. Built in/Library Functions</li> <li>b. User Define Functions           <ul style="list-style-type: none"> <li>i. Declaring a function</li> <li>ii. Defining a function               <ul style="list-style-type: none"> <li>1. No Return, No Parameter</li> <li>2. Return, No Parameter</li> <li>3. No Return, Parameter</li> <li>4. Return, Parameter</li> </ul> </li> <li>iii. Calling a function</li> </ul> </li> </ul>	2
5	<p>1) Recursion</p> <p>2) Type Casting</p> <p>3) Scope of variable</p> <ul style="list-style-type: none"> <li>a. Local variable</li> <li>b. Global variable</li> </ul> <p>4) Storage Classes</p> <ul style="list-style-type: none"> <li>a. Automatic</li> <li>b. Register</li> <li>c. Static</li> <li>d. External</li> </ul>	2
6	<p>1) Preprocessors</p> <ul style="list-style-type: none"> <li>a. File inclusion (#include)</li> <li>b. Macro Expansion (#define)</li> </ul> <p>2) Header files</p> <ul style="list-style-type: none"> <li>a. Built in/Library header Files</li> <li>b. User Define header file           <ul style="list-style-type: none"> <li>i. Creating user define header file</li> <li>ii. Using user define header file</li> </ul> </li> </ul>	2
7	<p>1) Problem Solving &amp; Recovery Session</p> <p>2) Test</p>	2

## Foundation of 'Core Java'

L.N.	Content	Hours

	1) Introduction of Java 2) History of Java 3) Introduction of JVM 4) Environment Setup for Java in Windows OS 5) Basic Syntax of Java Programming Language 6) Run First Java Program 7) Java Tokens	
8	a. Keywords b. Identifiers c. Variables d. Data types e. Operators 8) Introduction of OOPs 9) Basic Concept of OPPs with its Properties 10) Java Input/Outputs	2
9	1) Decision Making Statements <ul style="list-style-type: none"> <li>a. If Statement</li> <li>b. If...Else Statement</li> <li>c. If...Else...If...Else Statement</li> <li>d. Nested if Else Statement</li> <li>e. Switch Statement</li> <li>f. Ternary Operator (Condition?True:False)</li> </ul> 2) Looping Statement <ul style="list-style-type: none"> <li>a. While Loop</li> <li>b. For Loop</li> <li>c. Do While Loop</li> <li>d. Break Statement</li> <li>e. Continue Statement</li> </ul> 3) Type Conversion	2
10	1) Arrays <ul style="list-style-type: none"> <li>a. Single Dimensional Array</li> <li>b. Double Dimensional Array</li> </ul> 2) For each loop         3) String         4) Object         5) Classes         6) Constructor         7) Member Variables         8) Member Functions         9) Create Instance/Object of Class         10) User Class Members	2

11	<p>1) Modifiers</p> <ul style="list-style-type: none"> <li>a. Access Modifiers           <ul style="list-style-type: none"> <li>i. Public</li> <li>ii. Private</li> <li>iii. Protected</li> </ul> </li> <li>b. Static</li> <li>c. Final</li> <li>d. Abstract</li> </ul> <p>2) This Keywords</p> <p>3) Polymorphism</p> <ul style="list-style-type: none"> <li>a. Method Overloading</li> <li>b. Method Overriding</li> </ul>	2
12	<p>1) Inheritance</p> <ul style="list-style-type: none"> <li>a. Type of Inheritance           <ul style="list-style-type: none"> <li>i. Single Inheritance</li> <li>ii. Multilevel Inheritance</li> <li>iii. Hierarchical Inheritance</li> <li>iv. Multiple Inheritance</li> <li>v. Hybrid Inheritance</li> </ul> </li> <li>b. Extend keyword</li> </ul>	2

## Foundation of ‘Android’

L.N.	Content	Hours
13	<p>1) Introduction of Mobile Application</p> <p>2) Introduction Of Android OS</p> <p>3) Installation of Android Studio</p> <p>4) Overview of Android Studio</p> <p>5) Creating First Project in Android Studio</p> <p>6) What is Android?</p> <p>7) History of Android and its Versions</p> <p>8) Hello Android App</p>	2
14	<p>1) Android Application Architecture</p> <p>2) Application Components</p> <p>3) Resources</p> <p>4) Activities</p> <p>5) Services</p> <p>6) Broadcast Receivers</p> <p>7) Content Providers</p>	2

15	1) Fragment 2) Intents & Filters 3) Android Layouts 4) Creating Layouts 5) Views 6) View holders 7) UI Elements	2
16	1) Relative Layout 2) Linear Layouts 3) Coordinator Layout 4) Table Layout 5) Constraint Layout	2
17	1) TextView 2) EditText 3) Spinner 4) RadioButton 5) CheckBox 6) Button	2
18	1) ImageView 2) ToggleButton 3) Switch 4) View 5) CalendarView 6) ProgressBar	2
19	1) Seekbar 2) RatingBar 3) ScrollView 4) NestedScrollView	2
20	1) CardView 2) RecyclerView 3) ListView 4) AppBarLayout	2
21	1) WebView 2) Video 3) Audio	2
23	1) Tab Layout	2

24	1) NavigationDrawer	2
25	1) Bottom Navigation	2
26	1) Context Menu 2) Search View	2
27	1) Design Form 2) SQLite Database Connectivity 3) Database Insert Operation	2
28	1) Database Select Operation 2) Show Data in Recycler View	2
29	1) Database Update Operation 2) Database Delete Operation	2
30	1) Networking Class (Volley/Retrofit) 2) Sample API Calling	2
31	1) Get and Set data from API 2) JSON Parsing 3) Glide	2
32	1) Slider 2) Card Scrolling View 3) Share App Module	2
33	1) Login 2) Registration	2
34	1) OTP Validation	2
35	1) Location 2) Google Map	2

36	1) Get Data from API 2) Post Data to API 3) API Example App	2
37	1) Problem Solving & Recovery Class 2) Test 3) Project Allotment 4) Divide Team & Project Coordinators	2
38-44	1) Project Development (Complete All Project Modules)	2
45	1) Project Testing & Submission	2
46	Advance Android Application Development	2
47	SMS Gateway Integration	2
48	Payment Gateway Integration	2
49	Email API	2
50	Social Media APIs Integration	2
51	Live Chatting Integration	2
52	Material Design Features	2
53	App Hosting and Publishing	2