**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Session Even Semester**

**(2017-18)**

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| **Schedule** | | | **Subject 1 (Period 1st)**  **Room No : 318** | **Subject 2 (Period 2nd)**  **Room No: 102** | **Subject 3 (Period 7th)**  **Room No: 111** |
| **BSc Computer Sc. 3rd Web Programming ()** | **B.A. & BSc 2nd Computer Networksand Web Programming(IT Elective)** | **B.A. & BSc 1stC (IT Elective)** |
| **Week No** | **Date From** | **Date Up to** | **Topics to be covered** | **Topics to be covered** | **Topics to be covered** |
| Week 1 | Jan 08, 2018 | Jan 13, 2018 | Internet:Evolution of Internet, Future of Internet, Services provided on the Internet, Internet Access Methods.World Wide Web Evolution of www, Future of www, Fundamentals of web. | Networking: Definition, Network hardware and Software, Network Topologies | Overview of Programming: Introduction to computer based problem solving: |
| Week 2 | Jan 15, 2018 | Jan 20, 2018 | Web Browser and Web Server: Architecture, Working with Examples. Hypertext Markup Language : Introduction to HTML | Types and Uses of Computer Networks, Brief Introduction to OSI reference model  and TCP/IP reference Model | Requirements of problem solving by the computer |
| Week 3 | Jan 22, 2018 | Jan 27, 2018 | Building Blocks of HTML, HTML Lists, HTML Links,  Images in HTML. | Internet, WWW, URL, Introduction to Search engines.HTML: Introduction to HTML, Building blocks of HTML, lists, links, images, tables, frames, layers forms | Problem identification, Problem  Definition |
| Week 4 | Jan 29, 2018 | Feb 3, 2018 | Advanced HTML : HTML Tables, Frames, Forms, Editors | DHTML: Introduction to cascading style sheets (CSS), Types of Style sheets(Inline ,  embedded, external) ,class | Examples for problem solving, Problem solving strategies |
| Week 5 | Feb 5, 2018 | Feb 10, 2018 | Cascading Style Sheets : Introduction to CSS, Limitation of HTML, CSS Positioning, Layers | Applying CSS. Java Script: Features, tokens, data types, variables | Program  Design and implementation issues |
| Week 6 | Feb 12, 2018 | Feb 17, 2018 | Developing Simple Website : Website development using latest website development open source tool | operations, control constructs,  strings arrays, functions, core language objects, | Programs and Algorithms |
| Week 7 | Feb 19, 2018 | Feb 24, 2018 | Dynamic HTML : Moving elements and images, changing colors and hiding elements, moving between layers, mouse  rollovers. | Document object model,client side  objects, event handling. Applications related to client side form validation. | Top-down design  **Class Test** |
| Week 8 | Feb 26, 2018 | Mar 03 , 2018 | Java Scripting : Features, tokens, data types, variables, operators, control structs | Fundamentals of Java: Java Vs. C++, Byte lode, Java virtual machine, constants,  variables, data types | stepwise refinement (breaking a problem into sub-tasks) |
| Week 9 | March 15, 2018 | March 17, 2018 | strings, arrays, functions, core  language objects, client side objects, event handling, | operators, expressions, control structures, defining class, creating objects, accessing class members, constructions, method overloading. | Construction of loops basic  programming, |
| Week 10 | March 19 , 2018 | March 24, 2018 | Application related to client side from validation.  **Class Test** | Arrays, String handling Inheritance: Basics, member access, using super to call super  class constructors, creating a multi-level hierarchy, | establishing initial conditions, |
| Week 11 | March 26, 2018 | March 31, 2018 | Fundamentals of Java Programming Language : Java vs. C++, byte code, java virtual machine | method overriding, Dynamic  Method dispatch, using abstract classes, using Final. | terminating conditions,  **Class Test**| |
| Week 12 | April 02, 2018 | April 07, 2018 | constants, variables,  data types, operators, expressions, control structures | Packages and Interfaces: Defining a package, understanding CLASSPATH, Access  protection: Importing packages | Implementation (use of procedures for Modular design, choice of variable names, |
| Week 13 | April 09, 2018 | April 14 , 2018 | defining class, creating objects, accessing class members, | Interfaces, Defining an Interface, Implementing.  Interfaces, Applying, Interfaces, Variables in Interfaces. | **Class Test** |
| Week 14 | April 16, 2018 | April 21, 2018 | constructors, method overloading  **Class Test** | Exception Handling: Fundamentals, exception types, using Try and catch, Multiple Try and  Catch clauses, Nested Try statements, Built – in exceptions. | documentation of programs, program testing |
| Week 15 | April 23, 2018 | April 28, 2018 | Implementation of following programs in Java:  1. Program to identify whether entered number is prime or not.  2. Program to show table of a given number upto given limit.  3. Program to calculate factorial of a given number. | Multi-threaded Programming: The Java Thread model, Thread priorities, synchronizations,  messaging. The thread class and run able Interface, The Main Thread: Creating a Thread,  Implementing Runnable | Programming Environment,  Programming Language classification |
| Week 16 | April 30, 2018 | May 05, 2018 | 4. Program for explaining application of classes and objects.  5. Program explaining application of various types of constructors in Java.  6. Overload method area to calculate area of different objects like rectangle, circle, cube and cylinder. | Extending Thread, creating Multiple Threads, Thread Priorities;  synchronizations: Methods, statements, Inter Thread communication, Deadlock, suspending,  Resuming and stopping Threads, Applet fundamentals. | **Class Test** |