JAGAT GURU NANAK DEV
PUNJAB STATE OPEN UNIVERSITY PATIALA
(Established by Act No.19 of 2019 of Legislature of the State of Punjab)

Syllabus for the Post of Assistant Programmer

Programming Concepts Using PHP, ASP.NET and Java:-

PHP
Introduction to PHP, Datatypes, Function, Array, Operators, File handling, working with forms, Session and Cookie, Database connectivity with MySQL, Exception Handling, Installing and configuring of XAMPP Server, Basic knowledge of frameworks (CodeIgniter, Laravel).

ASP.NET
ASP.NET Web Forms, ASP.NET Frameworks, ASP.NET Security, ASP.NET Core MVC, ADO.NET, .NET Framework Class Library, Common Language Runtime. An Introduction to C#, Classes and Objects, C# - Types, C# - Events, Properties, and Methods. Development Server - IIS.

Java
Java Program Development , Java Source File Structure , Java and Internet, Java Virtual machine, Datatypes, Operators, Arrays, Control Statements and Looping Structures, Exception Handling, Multi -Threaded Programming. JDBC: Connectivity with MySQL, Stored procedures and functions. Basics of Servlet: Servlet API, Working with Apache Tomcat Server

Other Web Technologies
HTML5, CSS3, Bootstrap, WordPress, jQuery, JSON, AJAX, JavaScript, Static and Dynamic Web Development, Search Engine Optimization (SEO). Basics of server and client side scripting.

Database Management Systems (DBMS)
Database- MySQL, SQL Server:
Keys, E-R Model, Normalization – 1NF to 5NF; Aggregate functions, Nested Sub queries, Views, Joined Relations, Transaction- ACID properties; Concurrency Control, triggers, stored procedures, Data Models, SQL Commands, Data Sorting, Database Design, SQL Function, Operators, Clauses, Relational Databases and Integrity Constraints.