

## **HARCOURT BUTLER TECHNICAL UNIVERSITY, KANPUR**

### **Syllabus of the Written Test for Recruitment to the post of “Computer Programmer”**

#### **1. Internet Basics**

Protocols, Servers and their Functions, Internet Clients, Network Security, Internet Development, Design Functional Internet site & Business Concepts

#### **2. HTML**

Basic HTML, Text formatting on Web Pages, Incorporate images, Creating hyperlinks, complex image maps, tables and nested tables, Inserting web page, Setting & modifying field properties, Validating HTML

#### **3. Cascading Style Sheet – CSS**

Designing with Style Sheets, Style Sheet Syntax, ID, Class Contextual Selectors, Cascading Order, Properties, Absolute and Relative Positioning, Layering Elements using Z-Index, Animating objects

#### **4. Javascript**

Introduction to JavaScript, Variables and Objects, Decision-Making Statement, Loops, Arrays, Functions & Prototypes, Core JavaScript Objects

#### **5. PHP HyperText Pre-Processor – PHP**

Language Fundamentals, Decision-Making Statement, Loops, Statements, Operators, PHP functions, Arrays & Functions, String Functions, Server-Side Processing, Processing Forms via GET/POST, State and Persistence, Web Application Development, Introduction to PHP Frameworks & Basic OOP

#### **6. SQL & MySQL**

Basic of SQL & MySQL & its Versions, Administration & Query Browser, Creating Databases & Tables, Using keys, Types of Table in MySQL, Data Types, Deleting databases and tables, Inserting, Retrieving, Updating & Deleting data, User Accounts, Access Control & documentation

#### **7. Integrating PHP and MySQL**

PHP interfacing with MySQL, Connecting to MySQL, Database Connecting, Executing SQL, Retrieving the data set & Refining the fetched data

#### **8. Wordpress**

Setting Up Wordpress, Content creation, Plugin, Menus, Theme, Widgets

#### **9. Website**

Hosting website on ISP, Backup script code, database export/import procedure, security audit, vulnerability testing, Integration of payment gateway to website

#### **10. C Sharp**

Net Framework Architecture, Components of framework, CTS, CLS, CLR, FCL, ADO .Net, Console Programming, Windows Forms, Build, Package, and Deploy, ADO .Net Classes, Connectivity to Database, Dataset, Data table and Data Reader

#### **11. ERP**

Basic ERP Concepts, Benefits & Risk, OLAP, Implementation Challenges, ERP Implementation Strategies, ERP Implementation Life Cycle, Implementation Methodologies, ERP development using C sharp & MS SQL