



Our [**Hexan**®] course is first step in IT/CS and is mandatory for everyone.

TTB's registration fee, PKR. 2000/- for CIT 6 Months and PKR. 2000/- for DIT 1 Year, will be charged separately at the end of both courses.



QUETTA INSTITUTE OF INFORMATION TECHNOLOGY AND ENGLISH LANGUAGE

TTB Registration No.	616/TTB/QITEL/QTA/2018
Official Website:	https://www.qitel.edu.pk
Official Email Address:	info@qitel.edu.pk
Official WhatsApp No.	0311-8377440
Official Address:	Adjacent to Winsome English Language Center, Satellite Town, Block-4, Quetta

CIT - CERTIFICATE IN INFORMATION TECHNOLOGY COURSE OUTLINE – 6 MONTHS

□ Basics

- Intro to Computer, Computer Science, & Information Technology
- History of computer
- Generations of computer
- Types of computer
- Classifications of computer
- Characteristics of computer
- Advantages and disadvantages of computer
- Hardware vs software
- Types of hardware and software
- Printer and types of printer
- Number system and their conversion (Binary and Decimal)
- Computer viruses and its type
- Fundamentals of OS (Microsoft Windows 10/ 11)

□ Microsoft Office

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint

□ Programming Languages

- HTML
- C

□ Graphics Designing

- Inpage Urdu
- CorelDRAW

□ Computer Networking

- Basic Concepts, Designing Workgroup

□ Internet

- Basic Concepts, Browsing, Downloading/ Uploading, E-Mail, Website



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ACIT - ADVANCE CERTIFICATE IN INFORMATION TECHNOLOGY.

COURSE OUTLINE – 6 MONTHS.

☐ **Database System**

- Microsoft Access
- SQL

☐ **Apps Development**

- C/ C++
- VB

☐ **Computer Network**

- Workgroup
- Domain
- Virtualization

☐ **Frontend Web Development**

- HTML
- CSS



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COMPUTER HARDWARE COURSE OUTLINE – 1 MONTH

- ☐ Introduction
- ☐ Hardware vs Software
- ☐ Types of hardware and Software
- ☐ Basic parts of Computer (System Unit, Monitor, Keyboard, Mouse)
- ☐ Variants of Hard Drives: HDD, SSD, M1, M2
- ☐ FAT32 Vs. NTFS, MBR Vs. GPT, BIOS Vs. UEFI, 32-bit Vs. 64-bit Processor and Apps
- ☐ Memory and its types
- ☐ Disassembling and Assembling components of System Unit
- ☐ BIOS Settings:
 - System specs, Boot Order, System password and Setup password, Enabling & disabling hardware components, Enabling virtualization, Date and time
- ☐ Operating System installation and configurations
 - Microsoft windows 7, Windows 8, Windows 10, Windows 11
 - Linux
- ☐ Install, configure, and activate following apps:
 - Microsoft Office, CorelDraw, TypingMaster, PowerISO, Deep Freeze
- ☐ Show the contents in Drive having shortcut virus and remove it
- ☐ Norton Ghost & Disk Manager
- ☐ Devices Drivers
- ☐ Disable Windows Update and Update Windows Defender
- ☐ PowerISO
 - Installing and configuring
 - Creating CD/DVD/USB Images
 - Mounting an image
 - Writing/Burning image on CD/DVD/BD
 - Creating Single & Multi Bootable OS USB Flash Drive
 - Creating Multi-Boot CD/DVD/BD
- ☐ Windows Restore Point
- ☐ Dual Hard Drives Installation and Configurations
- ☐ Security System: Resetting Admin Passwords, System Key, PIN and Picture Passwords
- ☐ Third-Party Software
 - WinRAR, Data Recovery, Antiviruses, USB Dumper
- ☐ Configure PC for fast running:
 - Disable Automatic Windows Updates
 - Replace HDD with SSD
 - Empty Recycle Bin
 - Disk Clean Up
 - Uninstall unnecessary software
 - Create New User Account
 - Disable programs that run on startup
 - Log out other user accounts
 - Virtual Memory/ Page File
 - Adjust Your PC for best performance
 - Disk Defragmentation in HDD
 - Delete Temporary files
 - Change your power settings in Laptop
 - Ready Boost with Flash Drive



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COMPUTER NETWORK COURSE OUTLINE – 1 MONTH

Network Theory

- ☐ Introduction to and importance of networking
- ☐ Types of networks (LAN, MAN, WAN)
- ☐ Workgroup vs. Domain
- ☐ Network topologies (bus, ring, star, hybrid)
- ☐ Network media (guided & unguided)
- ☐ Network devices (switch, AP, router, firewall)
- ☐ Network addresses (logical & physical)
- ☐ Classes of IPv4 addresses
- ☐ Public vs. Private IP addresses
- ☐ Data storage / transmission units & prefixes

Network Labs

- ☐ Make straight-through, cross-over, and rollover cables
- ☐ NIC/ WNIC installation & configuration
 - ☐ **Workgroup**
 - o Designing and maintaining workgroup
 - o Folder and Drive sharing over workgroup
 - o Map network drive, Make available offline and Sync Center
 - o Remote desktop sharing, remote assistance, and Team viewer
 - o Printer, Game and Internet sharing
 - ☐ **Domain**
 - o Install and Configure VirtualBox
 - o Demonstrate the Creation and deletion of three VMs
 - o Install Windows Server 2012, Windows 7, and Windows 10 in each VMs
 - o Configure and verify six networking options in each VMs
 - o Install following Roles and Features in Server:
 - Active Directory domain services
 - DNS server
 - o Promote server to a domain controller
 - o Demonstrate creating and deleting users, groups, and OUs
 - o Demonstrate adding and deleting users to a group/ OU
 - o Join and leave domain using remaining two VMs at client side
 - o Share a folder with specific users/ OU
 - o Create following policies at server side and verify them at client side:
 - Prohibit access to control panel and PC settings
 - Prevent access to drive in my computer
 - Remove Task Manager



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INTERNET

COURSE OUTLINE – 1 MONTH

- ☐ **Internet History, Governance, and services**
- ☐ **Essential terminologies including but not limited to:** Server, Client, Datacenter, CDN, VPN, proxies, web browser, chrome extensions, ISP, uploading, downloading, online, offline, MODEM, switch, router, submarine cable, fiber optic cable, twisted-pair cable, network, internetwork, LAN, WAN, WLAN, AP, SSID, Wi-Fi Key, Bandwidth, Cybercrime, scam, SERP, Firewall, Blog, Website, TLDs, ccTLDs, Domain Name, DNS, IP Address, URL
- ☐ **Internet Vs. The Web**
- ☐ **Layers of Web**
- ☐ **Client-Server Model**
- ☐ **Before using Internet, one should keep in mind that?**
- ☐ **Disable Windows Automatics Updates and update Windows Defender**
- ☐ **Fundamentals of Browsing, Surfing, and Navigation**
- ☐ **Search Engines and SEO**
 - Google, Bing, Yahoo
- ☐ **Domain Registrar and Web Hosting Providers**
- ☐ **ChatGPT**
- ☐ **Social Media and SMM**
 - YouTube, WhatsApp, WhatsApp Web, Facebook
- ☐ **E-Mail Addresses**
 - Google Mail, Microsoft Outlook, Apple iCloud
- ☐ **Desktop Sharing and Remote Control**
 - Team Viewer, AnyDesk
- ☐ **Website and Blogging**
 - netlify, Blogger
- ☐ **Torrent**
 - Torrent clients and sites, downloading pirated apps
- ☐ **Downloading & Uploading Media**
- ☐ **Download Devices Drivers**
- ☐ **File hosting services and synchronization**
 - Google Drive, Microsoft OneDrive
- ☐ **Online News Papers, TV Channels, News Streaming**
- ☐ **FIA Cyber Crime Wing (CCW) and PECA 2016**
- ☐ **Google AdSense Vs. Google Ads**



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TYPING

COURSE OUTLINE – 2 MONTH

☐ Introduction to:

- Typing speed
- Typing speed units
- Typing apps
- Keyboard and its layouts
- Gestures/ Postures

☐ Typing Master

- Touch typing course
- Typing tests
- Typing games

☐ Notepad for typing

- Typing magic sentences

☐ Inpage Urdu

- Urdu typing

☐ Online typing

- Intro to www.10fastfingers.com
- Typing for 1 minute
- Typing competitions
- Multiplayer typing



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FOUNDATION OF ETHICAL HACKING

COURSE OUTLINE – 2 MONTH

Theory

- ☐ Intro to Ethical Hacking, Penetration Testing & Cybersecurity
- ☐ CIA Triad
- ☐ Types of Hackers
- ☐ Essential terminologies
- ☐ Network Vs. Internetwork Vs. Intranet Vs. Extranet
- ☐ Layers of Web
- ☐ Types of Networks; LAN, MAN, WAN, WLAN
- ☐ Switch Vs. Router Vs. Access Point Vs. Firewall Vs. MODEM
- ☐ Client-Server Model
- ☐ Five Phases of ethical hacking
- ☐ Malware and its types
- ☐ Structure of URLs
- ☐ Encryption, Decryption, and Hashing
- ☐ Logical Vs. Physical Addresses
- ☐ Port Numbers and its types
- ☐ Ethical Hacking Certification programs and roadmaps
- ☐ FIA Cyber Crime Wing (CCW) and PECA 2016

Labs

- ☐ Set up Physical and Virtual lab using Oracle VM VirtualBox for Hands-on
- ☐ Ensure Anonymity using proxychains, tor, & vpns
- ☐ Basics of Linux Terminal Emulator, Windows Commands Prompt, and PowerShell
- ☐ ARP Poisoning and MITM attacks Ettercap
- ☐ MAC and IP Address Spoofing
- ☐ Password and Hash Cracking with john, ncraK,
- ☐ Scanning and probing network with nmap, netdiscover, fping
- ☐ Compromising a system with metasploit framework
- ☐ Social Engineering/ Phishing Attacks
- ☐ Packet Sniffing with Wireshark
- ☐ Wi-Fi Hacking
- ☐ Android Phone Hacking
- ☐ Hosting Virtual Web Server with Kali
- ☐ Cloning Websites with HTTrack
- ☐ Third-party App: USB Dumper, Keylogger, Data Recovery, WinRAR, Reset Windows Password