



TILAK MAHARASHTRA VIDYAPEETH

Declared as Deemed to be University Under Section 3 of UGC Act 1956
Reaccredited by NAAC with 'B++' Grade
ISO 21001 : 2018 Certified



PhD Entrance Test
A.Y-2026-27
Subject: Computer Syllabus

Units	Topics
Computer fundamental	• INTRODUCTION TO COMPUTER • INPUT DEVICES • OUTPUT DEVICES • INTERNAL AND EXTERNAL PARTS OF A COMPUTER CABINET • DATA STORAGE AND NUMBER SYSTEM • NUMBER SYSTEM • PROGRAMMING LANGUAGES, OPERATING SYSTEMS, AND SOFTWARE PACKAGES
Information Technology, The Internet, and Information Systems	• People • Software • Hardware • Data • Connectivity and the Mobile Internet
The Internet, the Web and Electronic Commerce The Internet and the Web	• Internet Access • Web Utilities (Filters, File transfer utilities, Internet Security Suites) • Communication • Search Tools • Electronic Commerce • Cloud Computing • The Internet of Things
Application Software&System Software	• General-Purpose Applications • Specialized Applications • Operating systems • Mobile Operating systems • Desktop Operating systems • Utilities
The System Unit	• System Board • Microprocessor • Memory • Expansion Slots and Cards • Bus Lines • Ports • Power Supply • Electronic Data and Instructions

Input output devices	• What is Input? • Keyboard Entry • Pointing Devices • Scanning Devices • Image Capturing Devices • Audio-Input Devices • What is Output? • Monitors • Printers • Audio-Output Devices Combination of Input and Output devices
Secondary Storage	• Storage • Hard Disks • Solid State Storage • Optical Discs • Cloud Storage • Mass Storage Devices
Communications and Network	• Communication Channels • Connections Devices • Data Transmission • Networks • Network Types • Network Architecture • Organizational Networks
Databases	• Data • Data Organization • Databases • DBMS Structure • Types of Databases • Database Uses and Issues
AI Tools	• Cortana / Microsoft Co-Pilot • Google Assistant/Gemini • Otter.ai • ChatGPT • IFFFT- Task Automation • Digital Wellbeing - Google • Google Fit

References

1. Computer Fundamentals Authors: P. K. Sinha & Priti Sinha
2. Database System Concepts braham Silberschatz
3. Computer Networks Andrew S. Tanenbaum
4. Data Communications and Networking Behrouz A. Forouzan
5. Internet & World Wide Web: How to Program Paul J. Deitel & Harvey M. Deitel
6. Operating Systems Achyut S. Godbole
7. Artificial Intelligence: A Modern Approach Stuart Russell & Peter Norvig