# PAPER-5 INTRODUCTION TO INFORMATION TECHNOLOGY
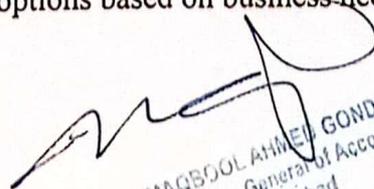## (100 MARKS PASSING MARKS-40)

## Module 1: Introduction to IT (20%)

- What is IT ?
- Definition and scope of IT.
- Role of IT in modern organizations.
- IT Infrastructure.
- Components of Infrastructure (hardware, software, networks, data centers).
- Overview of hardware component (CPU, RAM, Motherboard, storage).
- Peripheral devices (printers, scanners, external drives.
- Cloud computing and virtualization basis.
- Introduction to Programming.
- Introduction to Object Oriented Programing.
- Front-End /Backend Programing.
- Soft Development life cycle (SLDC).
- Agile Methodology.
- Operating Systems (OS).
- Introduction of Operating Systems.
- What is an OS? (Window, macOS, Linux).
- Functions of an OS (memory management, file systems).
- OS troubleshooting (system utilities, hardware, and software issues)
- Difference between OS and applications type (ERP, DSS, MIS, EIS)

## Module 2: Application Management (40%)

- Introduction to SAP
- Overview of SAP ERP (Enterprise Resource Planning) systems
- Understanding SAP's role in business processes
- Navigation and User Interfaces
- Basic navigation within SAP systems (GUI – Graphical User Interface)
- Introduction to SAP Fiori for modern interfaces
- Core Modules
- SAP FI (Financial Accounting)
- SAP HCM (Human Capital Management)
- Security Deposit Solution.
- SAP Project System.
- Data Management
- Basics of data entry and management with in SAP
- Introduction to SAP data structures (tables, files, records)
- Reporting and Analytics
- Introduction to SAP reporting tools (SAP Business Objects or SAP Analytics Cloud)
- Basic report generation and data analysis
- Integration and Customization
- Understanding how different SAP modules integrate with each other
- Overview of customization options based on business needs

## Module 3: Networking Fundamentals (10%)

- Introduction to Networking
- What is a network? (LAN, WAN, MAN)
- OSI model /TCP model
- Networking devices (routers, switches, access points)
- IP Addressing and Protocols
- Basics of IP addressing (IPv4, IPv6)
- Common protocols (TCP/IP/HTTP,FTP)

## Module 4: MOBILE Devices, IoT, Big Data (10%)

- Introduction to Mobile Devices and IoT
- Types of mobile devise (smart phones, tablets, laptops)
- Mobile operating systems (Android, iOS)
- Internet of things
- Introduction to Big Data
- Deep learning
- Machine learning
- Natural language processing

## Module 5: Security Basics (10%)

- Introduction to Cybersecurity
- Importance of Cybersecurity
- Common threats (malware, phishing, ransom ware)
- Securing Devices and Networks
- Password management and multi-factor authentication (MF)
- Data Protection (CIA)
- Confidentiality, integrity, ad availability of data
- Backups and disaster recovery
- Secure data disposal methods

## Module 6: Troubleshooting and Operational Procedure (10%)

- Troubleshooting Methodology
- Identity, Analyze the problem
- Develop and implement a solution
- Test and evaluate the solution
- Document the solution and implement preventive measures
- Hardware Troubleshooting
- Troubleshooting common hardware issues (e.g RAM, CPU, motherboard)
- Using diagnostic tools (e.g. BIOS, Device Manager)
- Software Troubleshooting
- Troubleshooting common software issues (e.g. operating system, application)
- Using diagnostic tools (e.g. Event Viewer , System Configuration)
- Network Troubleshooting
- Network Troubleshooting common network issues (e.g. DNS, DHCP)
- Using diagnostic tools (e.g. ping, trace route)
- IT Ethics and Best Practices
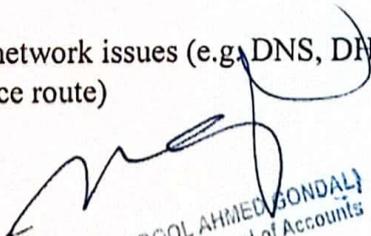
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