

Syllabus for the post of System Analyst Data Centre Manager

DESCRIPTION
<ul style="list-style-type: none">* Installation and maintenance of IT hardware : Servers, Storages, Switches, Routers, Firewalls* Installation and maintenance of Non -IT Hardware i.e. UPS, DGSET, CCTV, Fire suppression system, Cooling system, Batteries, BMS etc.* data accessibility and distribution* Ensuring the safety and protection of customers' data* Managing the storage and distribution of data* Data Backup* Maintenance of equipment* Creating planning for capacity changes* Upgrading hardware or software used by the organization* Researching new technologies to be utilized in the organizations* Presenting new tools that could be used to improve efficiency or cutting costs* Ensuring a safe and secure facility to protect the systems and power configuration* Planning for any probable disruptions, problems, and emergency* Troubleshooting technical or IT related issues* Configuring, managing, and analyzing automated system utilized in the organization* Ensuring precautions are set in place whenever power outages or malicious attacks occurred* Ensuring the operations are in compliance with the regulations and laws

Syllabus for the post of System Analyst – System Administrator

TOPIC
<ul style="list-style-type: none">* Installation & Administration of IBM AIX, Linux, VIOS / PowerVM, Storage, SAN Storage, HACMP/PowerHA/SysMirror.* LVM Administration (Volume Group, Logical Volume, File Systems, File Permission)* User & Group Administration.* LPAR, HMC Administration* NIM Base OS Management like AIX installation, Technology Level Update, apply, Backup & Restore.* Recovery of File System management* AIX mksysb backup & Restore.* Filesets / Software installation, update, removal.* Operating System (AIX/Linux) error log checking. Performance monitoring using topas, NMON, vmstat, iostat.* Troubleshooting for Linux, AIX, VIOS, PowerHA.* Knowledge of shell scripting.

Syllabus for the post of System Analyst – Information/Cyber Security

TOPIC
* Fundamental of Cyber Security.
* Database Security
* Web & mobile Application Security
* Android Penetration Testing
* Network Security
* Server Security
* IT Security Compliance
* Computer Forensics
* Cyber Laws
* Principles of operating system.
* Ethical Hacking Fundamentals
* Software ENGINEERING & Testing Methodologies.
* Security Architecture.

Syllabus for the post of System Analyst – Database Administrator (DBA)

TOPIC
* Database Management System
* Core DBA tasks and tools
* Database Architecture
* Database Installation and Creation
* Managing Database Instances & ASM instances
* Managing Undo Data
* Configure Network Environment
* Database storage structures
* User Security
* Concurrency Control
* Database auditing
* Database Security
* Crash Recovery
* Flashback Database Architecture
* Dealing with Database Corruption
* Monitoring and Managing Storage
* Backup and Recovery Concepts

Syllabus for the post of System Analyst – ERP & IT Applications.

TOPIC
<ul style="list-style-type: none">* Introduction to Enterprise Resource Planning* Various Modules of ERP;* Introduction to material requirement planning (MRP),* Definition of Enterprise Resource Planning (ERP);* Evolution of ERP; Characteristics, Features,* Components and needs of ERP;* ERP Vendors;* Benefits & Limitations of ERP Packages* Integrated Management Information;* Business Modeling;* Business Process Mapping for ERP Module Design;* Hardware Environment and its Selection for ERP Implementation.
<p>ERP and Related Technologies</p> <ul style="list-style-type: none">* ERP and Related Technologies;* Business Process Reengineering (BPR);* Management Information System (MIS);* Executive Information System (EIS);* Decision support System (DSS);* Supply Chain Management (SCM).
<ul style="list-style-type: none">* ERP Implementation Lifecycle* Issues in Implementing ERP Packages;* Project Planning Phase; Gap Analysis; Reengineering; Configuration;* Implementation; Team Training; Testing; Going Live; End-User Training; Post* Implementation -Maintenance Mode.

Syllabus for the post of Programmer/Manager (IT)

TOPIC	SUB TOPIC
Data Base Management Systems (DBMS).	<ul style="list-style-type: none">* ER Diagram, Data Models : Relational and Object Oriented databases.* Data Base Design : Conceptual Database Design.* Normalization Primitive and Composite Data Types.* Concept of Physical and Logical Databases* Data Abstraction and Data Independence, Data Aggregation and Relational Algebra.* Application Development Using SQL : Host Language Interface, Embedded SQL programming, Stored Procedures and Triggers and Views, Constraints Assertions.* Internal of RDBMS: Physical Data Organisation in Sequential, Indexed Random and Hashed Files.* Inverted and Multilist Structures, B Trees, B+ Trees, Query Optimisation, Join Algorithm.* Transaction Processing, Concurrency Control and Recovery Management.* Transaction Model Properties and State Serialisability.* Lock Base Protocols, Two Phase Locking.
Data Communication and Computer Networks.	<ul style="list-style-type: none">* Computer Network Architecture, Circuit switching, Packet And Message Switching, Network Structure.* Physical Layer, Data Link Layer, Framing. Retransmission Algorithms.* Multiple Access and Aloha. CSMA/CD and Ethernet.* High Speed LANs and Topologies.* Broadcast Routing and Spanning Trees.* TCP/IP Stack. IP Networks and Internet.* DNS and Firewalls. Intrusion Detection and Prevention.* Transport layer and TCP/IP.* Network Management And Interoperability.

<p>Programming Concepts.</p>	<ul style="list-style-type: none">* Introduction: Internet, Java as a Tool for Internet Applications, Byte Code and Its Advantages.* Object Oriented Programming and Design: Review of Abstraction, Objects and Other Basics, Encapsulation, Information Hiding, Method, Signature, Classes and Instances, Polymorphism, Inheritance, Exceptions and Exception Handling with Reference to Object Modeling, Coupling and Cohesion in Object Oriented Software.* Object Oriented Design – Process, Exploration and Analysis.* Java Programming Basics : Variables and Assignments, Input and Output, Data Types and Expressions* Flow of Control, Local Variables, Overloading Parameter Passing, 'this' Pointer, Java Object Oriented Concepts* Use of File for I/O, Formatting Output with stream Functions, Character I/O, Inheritance, Public and Private Members, Constructors for Initializations, Derived Classes* Flow of Control Arrays - Programming with Arrays, Arrays of Classes, Arrays as Function Arguments, Strings, Multidimensional Arrays, Arrays of Strings, Vectors, Base classes.* Introduction to JSP, RMI, Java Applets and Servlets.* Introduction to DotNet Framework and Visual Programming Interface.* API's AND WEB SERVICES, JS / AJAX / JQuery* WEB DESIGNING
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