

Answer Key for the Post: Helpdesk Executive

1. Which of the following BEST describes a problem?

Mark one answer:

- An issue reported by a user
- The cause of two or more incidents
- A serious incident which has a critical impact to the business
- The cause of one or more incidents

Ans: The cause of one or more incidents

2. What is RACI matrix

RACI is an acronym that stands for responsible, accountable, consulted and informed. A RACI chart is a matrix of all the activities or decision making authorities undertaken in an organisation set against all the people or roles.

3. Which one of the following is the BEST definition of the term service management?

Mark one answer:

- A set of specialized organizational capabilities for providing value to customers in the form of services
- A group of interacting, interrelated, or independent components that form a unified whole, operating together for a common purpose
- The management of functions within an organization to perform certain activities
- Units of organizations with roles to perform certain activities

4. What is a RACI model used for?

Mark one answer:

- Performance analysis
- Recording configuration items
- Monitoring services
- Defining roles and responsibilities

Ans: Defining roles and responsibilities

5. What is SLA?

Service Level Agreement

6. What is Change Management?

Change management is a systematic approach to dealing with the transition or transformation of an organization's goals, processes or technologies. The purpose of change management is to implement strategies for effecting change, controlling change and helping people to adapt to change.

7. What is ITIL

ITIL (Information Technology Infrastructure Library) is a set of detailed practices for IT service management (ITSM) that focuses on aligning IT services with the needs of business.

8. What is ITSM

IT service management (**ITSM**) refers to the entirety of activities – directed by policies, organized and structured in processes and supporting procedures – that are performed by an organization to design, plan, deliver, operate and control information technology (IT) services offered to customers.

9. What is BCP

Business continuity planning (**BCP**) is the creation of a strategy through the recognition of threats and risks facing a company, with an eye to ensure that personnel and assets are protected and able to function in the event of a disaster.

10. Difference between ISO 27001 and ISO 20000

ISO 20000 is a global standard that describes the requirements for an information technology service management (ITSM) system.

The **ISO/IEC 27000** family of standards helps organizations keep information assets secure. Using this family of standards will help your organization manage the security of assets such as financial information, intellectual property, employee details or information entrusted to you by third parties.

Answer Key for the Post: BMS ENGINEER

1. How do you ensure optimal temperature and humidity is maintained inside a Farm Area of a Data Center?

The optimal Temperature and humidity is maintained with the help of PAC. The temperature has to be maintained between 18°-27°C Humidity range is 40% and 60% rH.

2. What is the ideal Temperature range in Server farm area?

The temperature has to be maintained between 18°-27°C

3. What is the Ideal humidity to be maintained in Server farm Area?

Humidity range is 40% and 60% rH.

4. What is FM200?

FM-200 is a clean, colorless, and environmentally friendly fire suppression agent that is electrically non-conductive and safe for humans. It extinguishes flames primarily through heat absorption, leaving no residue, thus minimizing downtime after a fire

5. What is VESDA?

VESDA Systems are aspirating smoke detection used for early warning applications where response to a fire is critical.

6. What are the various components in BMS?

A building management system (BMS), is a computer-based control system installed in buildings that controls and monitors the building's mechanical and electrical equipment such as ventilation, lighting, power systems, fire systems, and security systems.

7. Scenario: You see Smoke coming from a server inside the server farm Area. List out that steps you would take in the said scenario.

Activating fire alarm, evacuation of personnels, informing local fire station, notifications to stakeholders etc.

8. What are the various physical Security controls deployed in a data Center?

Perimeter security, Security Guard, Access card based entry system, CCTV, Biometric based access control etc.

9. What Are different classes of fire and what type of extinguisher is used for each category?

Class A - fires involving solid materials such as wood, paper or textiles.

Class B - fires involving flammable liquids such as petrol, diesel or oils.

Class C - fires involving gases.

Class D - fires involving metals.

Class E - fires involving live electrical apparatus.

Class F - fires involving cooking oils such as in deep-fat fryers

Type Extinguisher	Fire		CLASS A	CLASS B	CLASS C	CLASS D	Electrical	CLASS F	Comments
	Extinguisher	Fire	Combustible materials (e.g. paper & wood)	Flammable liquids (e.g. paint & petrol)	Flammable gases (e.g. butane and methane)	Flammable metals (e.g. lithium & potassium)	Electrical equipment (e.g. computers & generators)	Deep fat fryers (e.g. chip pans)	
Water	✓	✗	✗	✗	✗	✗	✗	✗	Do not use on liquid or electric fires
Foam	✓	✓	✗	✗	✗	✗	✗	✗	Not suited to domestic use
Dry Powder	✓	✓	✓	✓	✓	✓	✓	✗	Can be used safely up to 1000 volts
CO2	✗	✓	✗	✗	✗	✗	✓	✗	Safe on both high and low voltage
Wet Chemical	✓	✗	✗	✗	✗	✗	✗	✓	Use on extremely high temperatures

10. What is Tailgating in information Security Domain?

Tailgating is one of the most common and innocent security breaches – an employee opening a door and holding it open for others, visitors without badges, or the passive acceptance of a uniformed worker.

Answer Key for the Post: Network Administrator

1. Frame tagging occurs on which layer of the OSI model?

- [A] Layer 1
- [B] Layer 2
- [C] Layer 3
- [D] Layer 4

Ans B

2. Bridges can create both physical and logical network segments.

- True
- False

Ans True

3. What is the size of a runt frame?

- [A] Less than 16 bytes
- [B] Less than 32 bytes
- [C] Less than 64 bytes
- [D] Less than 128 bytes

Ans C

4. IEEE 802.5 is which of the following LAN types?

- [A] Token Ring
- [B] Fast Ethernet
- [C] FDDI
- [D] Ethernet II

Ans A

5. All of the following are benefits to VLAN's except

- [A] Simplify moves, adds and changes
- [B] Reduce administrative costs
- [C] Better control of broadcasts
- [D] Proprietary management software

Ans D.

6. Which port number is used for SMTP?

- [A] 21
- [B] 23
- [C] 69
- [D] 25
- [E] 161

Ans D

7. What IPv6 multicast address does EIGRP use?

- FF02::FB
- FF03::FB
- FFB2::A
- FFB3::C

Ans FFB2::A

8. Service Provider (SP) can be Internet Service Provider (ISP) but ISP cannot be SP

- A. True
- B. False

Ans True

9. A null modem cable uses which adapter type?

- A. RJ-11
- B. RJ-45
- C. RS-323
- D. RS-232
- E. USB

Ans C.

10. What command can be used to change the Enable Secret password to CCCC?

- A. access enable CCCC
- B. set secret CCCC
- C. pass secret CCCC
- D. enable secret CCCC

Ans D

Answer Key for the Post: NETWORK SECURITY EXPERT

1. If you are the victim of a bluejacking attack, what was compromised?
- A. Your firewall
 - B. Your switch
 - C. Your cell phone
 - D. Your web cookies

Ans. C

2. _____ Firewalls are known as third-generation firewalls.
- E. Application-level gateway
 - F. Stateful inspection
 - G. Circuit-level gateway
 - H. Static packet-filtering

Ans. F.

3. An NMAP scan of a server shows port 25 is open. What risk could this pose?
- A. Open printer sharing
 - B. Web portal data leak
 - C. Clear text authentication
 - D. Active mail relay

Ans. D.

4. What type of OS fingerprinting technique sends specially crafted packets to the remote OS and analyzes the received response?
- A. Passive
 - B. Reflective
 - C. Active
 - D. Distributive

Ans. C.

5. A socket is a combination of which components?

- A. TCP and port number
- B. UDP and port number
- C. IP and session number
- D. IP and port number

Ans. D.

6. Which protocol is unsuitable for WAN VPN connections?

- A. PPP
- B. PPTP
- C. L2TP
- D. IPSec

Ans. A.

7. Which of the following protocols is considered connection-oriented?

- A. IP
- B. ICMP
- C. UDP
- D. TCP

Ans. D

8. A Company's Web development team has become aware of a certain type of security vulnerability in their Web software. To mitigate the possibility of this vulnerability being exploited, the team wants to modify the software requirements to disallow users from entering HTML as input into their Web application.

What kind of Web application vulnerability likely exists in their software?

- A. Cross-site scripting vulnerability
- B. Cross-site Request Forgery vulnerability
- C. SQL injection vulnerability
- D. Web site defacement vulnerability

Ans. A.

9. Which of the following is a hardware requirement that either an IDS/IPS system or a proxy server must have in order to properly function?
- A. Fast processor to help with network traffic analysis
 - B. They must be dual-homed
 - C. Similar RAM requirements
 - D. Fast network interface cards

Ans. B.

10. Which of the following is a bridge-mode technology that can monitor individual traffic links between virtual machines or can be integrated within a hypervisor component?
- A. Orthogonal frequency division
 - B. Unified threat management modem
 - C. Virtual firewall
 - D. Internet Security Association and Key Management Protocol

Ans. C.

Answer Key for the Post: SYSTEM ENGINEER

1. What is VPN?

A **virtual private network (VPN)** extends a private network across a public network, and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network.

2. What is the function of the OSI Session Layer?

Session layer (port layer) In the Open Systems Interconnection (**OSI**) communications model, the **Session layer** (sometimes called the "port **layer**") manages the setting up and taking down of the association between two communicating end points that is called a connection.

3. What tool represents a scanning tool?

a. Nessus

b. John the Ripper

c. Metasploit

d. Ophcrack

4. What is RSA algorithm?

RSA is an **algorithm** used by modern computers to encrypt and decrypt messages. It is an asymmetric cryptographic **algorithm**.

5. What is IPv6?

Internet Protocol version 6 (IPv6) is the most recent version of the Internet Protocol (IP), the communications protocol that provides an identification and location system for computers on networks and routes traffic across the Internet.

6. What is ISO 27001

The ISO/IEC 27000 family of standards helps organizations keep information assets secure. Using this family of standards will help your organization manage the security of assets such as financial information, intellectual property, employee details or information entrusted to you by third parties.

7. What is ISO 20000

ISO 20000 is a global standard that describes the requirements for an information technology service management (ITSM) system.

8. Various steps in Deployment of an application in Data Center

9. What is CIA in terms of InfoSec

Confidentiality, Integrity, and Availability.

10. Digital signature cannot provide ----- for the message.

- a. integrity
- b. confidentiality
- c. nonrepudiation
- d. authentication

Digital signature ensure integrity, authentication and non-repudiation. Whereas, confidentiality can be achieved with the help of encryption.

Answer Key for the Post :Server & EMS Administrator

1. You have a server named Server1 that runs Windows Server 2012 R2. Server1 has the Hyper-V server role installed. On Server1, you create a virtual machine named VM1. VM1 has a legacy network adapter. You need to assign a specific amount of available network bandwidth to VM1. What should you do first?
 - A. Remove the legacy network adapter, and then run the Set-VMNetworkAdapter cmdlet.
 - B. Add a second legacy network adapter, and then run the Set VMNetworkAdopter cmdlet.
 - C. Add a second legacy network adapter, and then configure network adapter teaming.
 - D. Remove the legacy network adapter, and then add a network adapter.

Ans : D

2. Your network contains an Active Directory forest named contoso.com. The forest contains a single domain. The domain contains two domain controllers named DC1 and DC2 that run Windows Server 2012 R2. The domain contains a user named User1 and a global security group named Group1. You need to modify the SAM account name of Group1. Which cmdlet should you run?
 - A. Add-AdPrincipalGroupMembership
 - B. Install-AddsDomainController
 - C. Install-WindowsFeature
 - D. Set-AdGroup

Ans : D

3. You have a server named Server1 that runs Windows Server 2012 R2. Server1 has three physical network adapters named NIC1, NIC2, and NIC3. On Server1, you create a NIC team named Team1 by using NIC1 and NIC2. You configure Team1 to accept network traffic on VLAN 10. You need to ensure that Server1 can accept network traffic on VLAN 10 and VLAN 11. The solution must ensure that the network traffic can be received on both VLANs if a network adapter fails. What should you do?
 - A. From Server Manager, change the load balancing mode of Team1.
 - B. Run the New-NetLbfoTeam cmdlet.
 - C. From Server Manager, add an interface to Team1.
 - D. Run the Add-NetLbfoTeamMember cmdlet.

Ans : C

4. In an isolated test environment, you deploy a server named Server1 that runs a Server Core Installation of Windows Server 2012 R2. The test environment does not have Active Directory Domain Services (AD DS) installed. You install the Active Directory Domain Services server role on Server1. You need to configure Server1 as a domain controller. Which cmdlet should you run?
 - A. Install-ADDSDomainController
 - B. Install-ADDSDomain
 - C. Install-ADDSEForest
 - D. Install-WindowsFeature

Ans : C

5. You have a server named Server1 that runs Windows Server 2012 R2. You plan to create a storage pool that will contain a new volume. You need to create a new 600-GB volume by using thin provisioning. The new volume must use the parity layout. What is the minimum number of 256-GB disks required for the storage pool?
 - A. 2
 - B. 3

- C. 4
- D. 5

Ans: C

6. Your network contains an Active Directory forest. The forest functional level is Windows Server 2012 R2. The forest contains a single domain. The domain contains a member server named Server1. Server1 runs windows Server 2012 R2. You purchase a network scanner named Scanner1 that supports Web Services on Devices (WSD). You need to share the network scanner on Server1. Which server role should you install on Server1?

- A. Web Server (IIS)
- B. Fax Server
- C. Print and Document Services
- D. File and Storage Services

Ans : C

7. Why is EMS a critical domain in Data Center operations. Explain the modules in an EMS? What are the different EMS solutions available in the market?

8. To increase the response time and throughput, the kernel minimizes the frequency of disk access by keeping a pool of internal data buffer called ?

- A. Pooling
- B. Spooling
- C. Buffer cache
- D. Swapping

Ans : C

9. Applications communicate with kernel by using:

- A. System Calls
- B. C Programs
- C. Shell Script
- D. Shell

Ans : A

10. Host specific configuration files are installed in

- A. /etc directory
- B. /lib directory
- C. /root directory
- D. /bin directory

Ans : A

Answer Key for the Post : Database Administrator

1. What is schema ?

Ans A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations among them are associated. It formulates all the constraints that are to be applied on the data.

2. What is an instance?

Ans A database instance (Server) is a set of memory structure and background processes that access a set of database files. The process can be shared by all users. The memory structure that are used to store most queried data from database. This helps up to improve database performance by decreasing the amount of I/O performed against data file.

3. What is DBMS ?

Ans The database management system is a collection of programs that enables user to store, retrieve, update and delete information from a database.

4. What is a primary key?

Ans A primary key is a column whose values **uniquely identify every row** in a table. Primary key values can never be reused. If a row is deleted from the table, its primary key may not be assigned to any new rows in the future. To define a field as primary key, following conditions had to be met :

1. No two rows can have the same primary key value. 2. Every row must have a primary key value. 3. The primary key field cannot be null. 4. Value in a primary key column can never be modified or updated, if any foreign key refers to that primary key.

5. What is a Database Lock ?

Ans Database lock tells a transaction, if the data item in questions is currently being used by other transactions.

6. What is a stored procedure?

Ans Stored Procedure is a function which contains a collection of SQL Queries. The procedure can take inputs , process them and send back output.

7. What are joins in DBMS?

Ans A join is a temporary relationship that you can create between two tables in a database query that do not already have an established relationship or common field with the same fieldname or data type. Database tables that are joined in a query are related in that query only, and nowhere else. The type of join that you use indicates which records the query will select or perform the chosen actions on.

8. You use a contained database named MainDb within a domain. You need to create a user who can log on to the MainDb database. You also need to ensure that you can port the database to different database servers within the domain without additional user account configurations.

Which type of user should you create?

- A. User mapped to a certificate
- B. SQL user without login
- C. Domain user
- D. SQL user with login

Ans C

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Ans C

10. You administer a Microsoft SQL Server 2012 database. You provide temporary security admin access to User1 to the database server. You need to know if User1 adds logins to security admin. Which server-level audit action group should you use?

- A. SERVER_STATE_CHANGE_GROUP
- B. SERVER_PRINCIPAL_IMPERSONATION_GROUP
- C. SUCCESSFUL_LOGIN_GROUP
- D. SERVER_ROLE_MEMBER_CHANGE_GROUP

Ans D