

University of Mumbai
Examination 2020-21

Program: Information Technology

Examination: ME

Semester: I

Course Code: MEITICWC101

Course Name: IT Infrastructure Design

Time: 2 hour

Max. Marks: 80

Q1. Choose the correct option for following questions.

All the Questions are compulsory and carry equal marks

Q1. These are the main components of Cisco Data Center 3.0

- a. Virtualization, Unified fabric, Unified computing
- b. Unified computing, Unified computer, Virtualization
- c. Virtualization, Unified fabric, Unified Units
- d. Virtualization, Unified computer, , Unified Units

Q2. Following are the Data Center Facility Considerations

- a. Physical security, Cloud capacity, computer specification, computer capacity
- b. Environmental conditions, Physical security, Cloud capacity, computer specification
- c. Environmental conditions, Physical security, Capacity limits, computer specification
- d. Environmental conditions, Physical security, Capacity limits, Architectural and mechanical specification

Q3. Provides port density for server farms is benefit of following layer

- a. Access Layer
- b. Aggregation Layer
- c. Core Layer
- d. Aggregation & Core Layer

Q4. --- is an umbrella term used to represent several different technologies.

- a. Virtualization
- b. Cloud computing
- c. Data security
- d. Cloud security

Q5. 10 Gigabit Ethernet also called as---

- a. Enhanced Ethernet.
- b. High speed Ethernet.
- c. Very high-speed Ethernet.
- d. Enrich Ethernet.

Q6. . In SAN (Storage Area Network), Data is identified by___

- a. Disk block.
- b. File
- c. Server
- d. Data Block

Q7. In SAN (Storage Area Network), file system is managed by ___

- a. Head Unit
- b. Server
- c. Client
- d. Cloud

Q8. SAN give high performance for following System

- a. High storage traffic systems
- b. Low speed traffic systems
- c. High speed traffic systems
- d. Low Storage traffic systems

Q9. How many symmetric message subtypes present in OpenFlow protocol?

- a. Five
- b. Two
- c. Four
- d. Three

Q10. Following is an Asynchronous message which is initiated by the switch

- a. Packet-in
- b. Hello
- c. Echo
- d. Vendor

Q11. IGMP stands for _____

- a. Internet Gateway Management Protocol
- b. Interior Group Management Protocol
- c. Interior Gateway Management Protocol
- d. Internet Group Management Protocol

Q12. The PDIOO network lifecycle

- a. Reflects the phases of a standard network's lifecycle
- b. Defines the steps in which the user has to maintain the network
- c. Shows how to implement security in a phased manner
- d. Reflects the performance of the network

Q13. " _____ means starting your design from the top layer of the OSI model and working your way down"

- a. Top-down design
- b. Bottom-up design
- c. Hierarchical design
- d. Hybrid design

Q14. The distribution layer provides _____

- a. fast transport between distribution switches
- b. policy-based connectivity.
- c. workgroup and user access to the network
- d. functionality to the network

Q15. "Which of these is not a module of the Cisco Enterprise Architecture?"

- a. Enterprise campus area
- b. Enterprise data center module
- c. Enterprise server module
- d. Enterprise branch module

Q16. _____ connect separate segments of a network

- a. Repeaters
- b. Bridges
- c. Gateway
- d. Firewall

Q17. "The most significant design rule for Ethernet is that the round-trip propagation delay in one collision domain must not exceed ____"

- a. 256-bit times
- b. 128-bit times
- c. 64-bit times
- d. 512-bit times

Q18. "____ is a draft Internet Engineering Task Force (IETF) standard for control messaging for setup, authentication, and operations between APs and WLAN controllers (WLC)."

- a. Lightweight Access Point Protocol (LWAPP)
- b. P2P
- c. PPE
- d. WEP

Q19. The following is not one of the four main benefits of the PPDIIO life cycle

- a. It increases network availability by producing a sound network design and validating the network operation
- b. It improves business agility by establishing business requirements and technology strategies
- c. "It speeds access to applications and services by improving availability, reliability, security, scalability, and performance.
- d. It increases the total cost of ownership

Q20. The ____ is characterized by switched LAN segments in a campus environment

- a. Core layer
- b. Distribution layer
- c. Core and Access layer
- d. Access layer

Q2. Solve any Two Questions out of Three

10 marks each

- A. Write in detail about Controller redundancy design in WLAN
- B. List the routing protocols and discuss any one in detail wrt its security issues
- C. Differentiate between Fast, Gigabit and 10G Ethernet technologies

Q3. Solve any Two Questions out of Three

10 marks each

- A. What is Data center? List three data center topologies and explain any one in detail
- B. What is SAN? Discuss its role in Data center.
- C. Explain how SDN changed traditional Enterprise network design? Highlight with Example