

Mumbai University

May - 2019

B.Sc.IT: SEMESTER – VI

(QUESTION PAPER)

[CBCS – Choice Based]

**ENTERPRISE
NETWORKING**

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MAR – 2019 | CBCS – CHOICE BASED

MUMBAI UNIVERSITY
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Time: 2 ½ Hours

Total Marks: 75

NOTE:

- (1) All questions (Q.1 to Q.5) are compulsory.
- (2) Figures on the right indicate total marks. All sub-questions carry equal marks.
- (3) Write the question numbers clearly as mentioned in the Question Paper.
- (4) Mixing of sub-questions is not allowed.
- (5) Draw diagrams and give examples whenever necessary.
- (6) Use of calculator or any other electronic gadget is not allowed.

Q.1 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- | | |
|---|-----|
| (A) Explain in details Architectures for the Enterprise. | (5) |
| (B) Discuss the PPDIIO Phases in details. | (5) |
| (C) Explain different layers of Hierarchical Network design. | (5) |
| (D) What are the different Redundancy Techniques? Discuss in details. | (5) |
| (E) Explain HSRP, VRRP and GLBP. | (5) |
| (F) Explain in details different Network Audit Tools. | (5) |

Q.2 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

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|--|-----|
| (A) Compare and Contrast between Switches, Routers and Layer 3 switches. | (5) |
| (B) What are Data Center Foundation components? | (5) |
| (C) What are different types of Virtualizations? | (5) |
| (D) Explain Spanning Tree Protocol. | (5) |
| (E) What is campus LAN Design? What are the Best Practices for the same? | (5) |
| (F) Discuss different Strategies for Load Balancing in the Data Center. | (5) |

Q.3 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- | | |
|---|-----|
| (A) Write a short note on different WLAN Standards. | (5) |
| (B) Write in details WLAN Controller Components. | (5) |
| (C) <u>Write a Short notes on:</u> | (5) |
| 1) Frame Relay | |
| 2) Metro Ethernet | |
| (D) Discuss WAN and Edge Design Methodologies. | (5) |
| (E) What are the different methodologies for Optimizing Bandwidth Using QoS? Explain. | (5) |
| (F) Explain various DMZ Connectivity Implementation Techniques? | (5) |

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Q.4 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Explain IPV4 header structure. (5)
- (B) Write short notes on: (5)
 - 1) BOOTP
 - 2) DHCP
- (C) Explain IPv6 Unicast Address, Anycast Address and Multicast Address. (5)
- (D) Discuss IPv6 Address-Assignment Strategies. (5)
- (E) What are the techniques for IPv4-to-IPv6 Transition Mechanisms? (5)
- (F) What are routing Protocol Metrics and Loop Prevention techniques? (5)

Q.5 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) What are different Network Security Threats? (5)
- (B) Explain Security Risks. (5)
- (C) Write short note on Risk Assessment. (5)
- (D) Write short notes on: (5)
 - 1) RMON
 - 2) NetFlow
- (E) What are the techniques for Detecting and Mitigation Threats? (5)
- (F) Compare and Contrast IPS and IDS. (5)