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# DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2024

Semester: X

055EE110 NETWORK MANAGEMENT

Time: 3:00 Hours

Max. Marks: 100

Answer any FIVE Questions (5 x 20 = 100 Marks)

1. a) Explain the SEVEN layer OSI Model of computer networks. (14 Marks)  
b) With the aid of a diagram explain data encapsulation in the TCP/IP protocol architecture. (6 Marks)
2. a) Briefly explain the IP address. (4 Marks)  
b) Define routing and describe THREE routing configurations. (8 Marks)  
c) Describe the Open Shortest Path First routing protocol. (8 Marks)
3. a) Explain DNS as network service and explain domain hierarchy with the aid of diagram. (10 Marks)  
b) Define DHCP and explain FOUR different ways in network administrators can use DHCP. (10 Marks)
4. a) Define the Network File System and outline its components. (10 Marks)  
b) Describe NetBIOS and the THREE services that it provides. (10 Marks)
5. a) Explain assessing threats as an effective approach to an effective network security plan. (10 Marks)  
b) Define encryption and explain the two types of encryption. (10 Marks)

6. a) Determining your "organizational type" helps you assess your address needs and how you should satisfy those needs. Describe FOUR organizational types that you will consider when obtaining IP addresses. **(8 Marks)**
- b) Explain subnetting and the advantages of subnetting. **(12 Marks)**
7. a) State the steps for the process of File sharing using Network File Sharing (NFS). **(10 Marks)**
- b) Define and Outline the features of Post Office Protocol (POP). **(10 Marks)**