



## **UNIVERSITY EXAMINATIONS**

### **THIRD YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE IN APPLIED COMPUTER SCIENCE**

**FIRST SEMESTER 2022/2023  
[SEPTEMBER-DECEMBER, 2022]**

#### **ACMP 355: NETWORK DESIGN AND MANAGEMENT**

**STREAM: Y3S1**

**TIME: 2 HOURS**

**DAY: MONDAY, 9:00 – 11:00 AM**

**DATE: 05/12/2022**

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#### **INSTRUCTIONS**

- 1. Do not write anything on this question paper.***
- 2. Answer question ONE and any other TWO questions.***

#### **QUESTION ONE**

- Use a diagram to describe the structure of the Peer-to-Peer Net. model for network management (10 marks)
- Discuss any three Network Monitoring Information that is used in network management (9 marks)
- Explain how to carry out Polling and Event Reporting in network design and management (6 marks)
- Discuss any two network disaster recovery strategies (5 marks)

#### **QUESTION TWO**

- Explain the key elements of Efficiency Oriented Network Performance Indicators (10 marks)
- Discuss the key elements that define Configuration Management of a network (5 marks)
- Explain how to determine optimal server hardware when setting up a network (5 marks)

### **QUESTION THREE**

- a. By use of a diagram, describe the concept of a firewall in network management (10 marks)
- b. Explain how X.500 directory service implements identity authentication and access control (10 marks)

### **QUESTION FOUR**

- a. Discuss any four factors to consider when expanding a network in network management (8 marks)
- b. Describe the Planning Issues one needs to consider in contingency planning and disaster recovery of a network (Consider planning requirements/rules and team structure responsibilities). (8 marks)
- c. Explain how and where the Ifconfig command is used in network administration (4 marks)

### **QUESTION FIVE**

Explain how the role of each of the following elements in the management Organizational Structure of Users in a network

- a. Authentication domain (5 marks)
- b. User/Groups (5 marks)
- c. When designing a network, it is important to consider the scope of network administration, discuss in detail the scope of network administration (10 marks)