# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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#### MAIN EXAMINATION

# **AUGUST - DECEMBER 2015 TRIMESTER**

# **FACULTY OF SCIENCE**

## DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

### **EVENING PROGRAMME**

LIS 404: NETWORK DESIGN AND ADMINISTRATION

Date: DECEMBER 2015 Duration: 2 Hours
INSTRUCTIONS: Answer Question ONE and ANY OTHER TWO Questions

- Q1. a) As a network designer, one needs to explain to the management THREE major points, explain each point. (3 marks)
  - b) A network is thought of as being made up of THREE parts, name and explain them. (6 marks)
  - c) List the major achievable in network design. (4 marks)
  - d) Explain the EIGHT major networking issues in network designs. (8 marks)
  - e) Outline the TWO major network design methodologies. (4 marks)
  - f) Outline ONE major problem with the traditional network design methodology. (2 marks)
  - g) Explain the THREE major points that are required in order to have a good network design. (3 marks)
- Q2. a) With the help of a diagram explain what a network development life cycle is. (7 marks)

- b) In network design and implementation cycle, in the first stage which is analyze the requirements, outline FOUR major points to consider at this stage. (4 marks)
- c) Explain the network design methodology that one would use when a customer expects a quick response to a network design request.

  (2 marks)
- d) Outline how the Top-Down network design process works. (4 marks)
- e) Explain the THREE major advantages of the Top-Down design process.

  (3 marks)
- Q3. a) With the help of a diagram explain how a network design and implementation cycle works. (6 marks)
  - b) Explain how each stage is achieved. (14 marks)
- Q4. a) With the help of a diagram explain how PDIOO network life cycle works and explain what each stage does. (6 marks)
  - b) Outline the FOUR major overall characteristics of network analysis and design methodology. (4 marks)
  - c) Explain the overall guidelines for network analysis and design methodology. (8 marks)
  - d) List and explain any TWO approaches used for design. (2 marks)
- Q5. a) In network management, explain the main jobs of a network manager. (3 marks)
  - b) List the FOUR major specialties in network management that have been divided into. (4 marks)
  - c) List THREE major network based management tools, that are used to control the network. (3 marks)
  - d) Name one network based management tool that is used to monitor the network. (2 marks)

- e) Explain what network management involve in network system administration. (6 marks)
- f) Explain what the following terms in network management mean
  - i Managed device.
  - ii Managing Entity.
  - iii Network management protocol.
  - iv Management information base (MIB) (2 marks)

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