



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2015/2016**

**FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE  
DEGREE OF BACHELOR OF ARTS, AGRICULTURE AND  
MATHEMATICS WITH INFORMATION TECHNOLOGY**

**MAIN CAMPUS**

**UCI 102: COMPUTER COMMUNICATION SYSTEMS**

Date: 3<sup>rd</sup> May, 2016

Time: 11.00 - 1.00 pm

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**INSTRUCTIONS:**

- SECTION A: Question ONE is COMPULSORY.
- SECTION B: Question 2-5: Answer any TWO questions of your choice.

- Q1. a) Explain what is meant by the term Network and apart from computer network , give FOUR practical examples of networks. **5marks**
- b) Briefly explain the function of the following in computer network.
- i) Gateway
  - ii) Router
  - iii) Switch
  - iv) Repeater
- 4marks**
- c) Discuss FIVE benefits an organization can realize due to Accounting Management of its computer network. **5marks**
- d) Define the term Topology and briefly explain the difference between the linear bus and token ring topologies in computer network. **5marks**
- e) Discuss the Corrective, Adaptive and enhanceive maintenance in computer network. **4marks**
- f) Differentiate between transparent bridging and Source route bridging. **4marks**
- g) What is planning and explain its impact on network management. **4marks**

**SECTION B: ANSWER ANY TWO QUESTIONS . 20MARKS EACH**

- Q2 a) Discuss how we can protect our communication systems from the various attacks instigated by our adversaries. **10marks**
- b) Network design increases chances of success in any technical discipline and also makes the designer's work simpler, more productive, and more satisfying. Discuss the benefits that Network design brings to an organization. **10marks**
- Q3 a) Discuss how the following strategies help in meeting the performance metrics in a computer network.
- i) Service Level Agreement
  - ii) Open -Architecture
- 10marks**
- Q4 a) Discuss the steps involved in troubleshooting network problems. **10marks**
- b) State and explain the THREE common Network Management Architectures. **10marks**
- Q5 a) Identify and briefly explain the steps involved in troubleshooting in computer network. **10marks**
- b) Computer network can be classified according to the way it is configured. Discuss. **10marks**