



**JARAMOGI OGINGA ODINGA UNIVERSITY  
OF SCIENCE & TECHNOLOGY  
UNIVERSITY EXAMINATIONS 2012/2013  
2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER EXAMINATION FOR THE DEGREE  
OF BACHELOR OF BUSINESS ADMINISTRATION WITH IT  
(KISUMU L.CENTRE)**

**COURSE CODE: IIT 3216**

**COURSE TITLE: TCP/IP NETWORK ADMINISTRATION**

**DATE: 14/8/2013**

**TIME: 2.00-4.00 PM**

**DURATION: 2 HOURS**

**INSTRUCTIONS**

- 1. This paper consists of 5 Questions.**
- 2. Answer Question 1 (Compulsory) and any other 2 questions.**
- 3. Write your answers on the answer booklet provided.**

### QUESTION ONE 30marks

- a) Describe IP classification addresses available (10 Marks)
- b) Highlight the benefits of using TCP/IP over other protocols (12 Marks)
- c) Discuss the **THREE** types of threat to enterprise network. (8 Marks)

### QUESTION TWO

- a) Highlight the difference between IPv4 and IPv6 (10 Marks)
- b) Describe the functions of TCP and IP as independent protocols (10 Marks)

### QUESTION THREE

- a) Discuss the **FIVE** design goals for TCP/IP (10 Marks)
- b) Explain the roles of Application and Transport layers of TCP/IP protocols (10 Marks)

### QUESTION FOUR

- a) Discuss the reasons for subnetting an IP network (8 Marks)
- b) State the roles of the following in a datagram header;
  - a) The source port number (3 Marks)
  - b) Sequence number (3 Marks)
  - c) Checksum (3 Marks)
  - d) Acknowledgement Number (3 Marks)

### QUESTION FIVE

- a) What are the possible consequences of lack of effective network planning? (8 Marks)
- b) Explain the key functions of the following application protocols on top of TCP/IP protocol
  - a) Simple network management protocol (SNMP) (3 Marks)
  - b) File Transfer Protocol (FTP) (3 Marks)
  - c) Simple Mail Transfer Protocol (SMTP) (3 Marks)
  - d) Telnet (3 Marks)