THE TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

CERTIFICATE IN INFORMATION TECHNOLOGY & MAINTENANCE
(CITM 12S)

EIT 1105: COMPUTER NETWORKS

END OF SEMESTER EXAMINATION
SERIES: APRIL 2013
TIME: 2 HOURS

<u>**Instructions to Candidates:**</u>
You should have the following for this examination

This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question One (Compulsory)

a) Define the following terms:
(i)	Switch	**(2 marks)**
(ii)	Router	**(2 marks)**
(iii)	Bridge	**(2 marks)**
(iv)	Firewall	**(2 marks)**

b) Why is the network more reliable than a standalone computer? **(2 marks)**

c) Name any **THREE** tools used in networking. **(3 marks)**

d) Distinguish between thinnest and thicknest coaxial cables. **(2 marks)**

e) Differentiate between half duplex and full duplex transmissions. **(4 marks)**

f) Explain the term bandwidth **(2 marks)**

g) Give **TWO** limitations of networking. **(4 marks)**

h) Define the term computer networking. **(2 marks)**

i) List **THREE** examples of commonly used NOS. **(3 marks)**

Question Two

a) Write the following abbreviations in full text. **(5 marks)**
(i)	MAN
(ii)	LAN
(iii)	WAN
(iv)	PSDN
(v)	ISDN

b) Explain how protocols work. **(4 marks)**

c) Differentiate between a single mode and a multimode fiber. **(4 marks)**

d) In real life situation, where would you find full duplex mode of communication? **(2 marks)**

Question Three

a) Name and explain the **FOUR** main parts of the fiber cable. **(8 marks)**

b) Describe the VSAT technology **(5 marks)**

c) Why is switch preferred to a hub on the network? **(2 mark)**

Question Four

Describe **FIVE** type of physical network topologies used in LAN. **(15 marks)**

Question Five

a) Define the following terms:
   - **(i)** Topology
   - **(ii)** Network
   - **(iii)** Protocol
   - **(iv)** Network Operating System **(8 marks)**

b) Distinguish between logical and physical topology. **(4 marks)**

c) Explain the importance of physical log in the OSI (Open System Interconnection) reference model.
   (3 marks)