



TECHNICAL UNIVERSITY OF MOMBASA

Institute of Computing & Informatics

UNIVERSITY EXAMINATION FOR

BACHELORS OF TECHNOLOGY IN INFOTMATION TECHNOLOGY

BTIT SEPT 2014 J-FT Y4 S1

EIT 4408 STRUCTURED CABLING

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2 HOURS

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Five questions. Attempt Question One and any two other

Do not write on the question paper.

Question ONE (30 marks)

- (a) Explain the following:
 - i. Equipment Room.
 - ii. Multimode Multicore Optic Fibre cable.
 - iii. Twinax coaxial cable.
 - iv. Cable naming convention “SF/UTP”. (8 marks)
- (b) Describe the main components of the cable system infrastructure suitable for installation in an equipment room to support data center applications. (6 marks)
- (c) Outline any four test parameters for twisted pair cabling systems. (4 marks)
- (d) Outline any four possible faults in a newly installed cable system. (4 marks)
- (e) Briefly, describe the step-by-step procedure of making a UTP straight through cable. (8 marks)

Question TWO (20 marks)

- (a) Using a labelled diagram, outline the differences between a twinax and a dual coaxial cable. (4 marks)
- (b) Outline the evolution twisted pair cabling system categories. (8 marks)
- (c) Discuss the pros and cons of unstructured network cabling system? (4 marks)
- (d) Outline the advantages and disadvantages of the optic fibre cable system compared to the coaxial cable system. (4 marks)

Question THREE (20 marks)

- (a) Explain with examples the differences between Centralized and distributed cable infrastructure topologies. (6 marks)
- (b) Discuss the elements of cable infrastructure system administrations. (10 marks)
- (c) Compare and contrast between Ring and Bus network topologies. (4 marks)

Question FOUR (20 marks)

- (a) With examples, outline the two main classifications of communication networks cables. (4 marks)
- (b) State one application area for one type of cable in each of the classifications you have outlined in question 4 (a) above. (2 marks)
- (c) Explain four challenges associated with location on faults on fibre cable systems. (6 marks)
- (d) Discuss the factors to consider while selecting an interconnecting device for use in a LAN. (8 marks)

Question FIVE (20 marks)

- (a) Explain the four classifications of Ethernet hubs. (8 marks)
- (b) Compare and contrast between single mode and multimode fiber cables. (6 marks)
- (c) Briefly, outline the classifications of Ethernet based LAN technologies. (6 marks)