

**W1-2-60-1-6**

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

# **UNIVERSITY EXAMINATIONS 2015/2016**

FIRST YEAR SECOND SEMESTER SPECIAL/SUPPLEMENTARY EXAMINATION FOR THE DIPLOMA IN INFORMATION TECHNOLOGY

**DIT 0302 : NETWORKING ESSENTIALS**

**DATE: APRIL 2017 TIME: 1.30 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE [COMPULSORY] AND ANY OTHER TWO QUESTIONS**

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**QUESTION ONE**

1. Define the following terms
2. Network
3. Basebond signal
4. Broadbond transmission
5. Attenuator
6. …………………………………..
7. Multiplexing [12 marks]
8. State and explain THREE MODES of data communication [6 marks]
9. Discuss six importance of networking computers in an organization [6 marks]
10. Explain THREE types of computer networks [6 mark]

**QUESTION TWO**

1. Describe two types of network topologies and in each type mention two advantages and to disadvantages. Use diagrams to illustrate [12 marks]
2. Define a topology [2 marks]
3. Differentiate between a server and a client in a network [2 marks]
4. State and explain two ways in which a network topology can be viewed. [4 marks]

**QUESTION THREE**

1. Explain the functions of the following layers in OSI [12 marks]
2. Physical layer
3. Network layer
4. Transport layer
5. Session layer
6. Presentation
7. Application layer
8. Define the term protocol [2 marks]
9. Discuss the following terms and give two examples in each [6 marks]
10. Bounded media
11. Unbounded media

**QUESTION FOUR**

1. List two wireless communication devices [2 marks]
2. State the functions of the following devices as used in networking [12 marks]
3. Bridge
4. Gateway
5. Hub
6. NIC
7. Repeater
8. A computer network as made up of several standards elements components which can be classified into three major categories. State these categories and examples of each. [6 marks]