



**NATIONAL OPEN UNIVERSITY OF NIGERIA,  
University Village, 91 Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi, Abuja  
FACULTY OF SCIENCE  
DEPARTMENT OF COMPUTER SCIENCE  
2021\_2 EXAMINATION**

**COURSE CODE: CIT 722**

**COURSE TITLE: COMPUTER NETWORKS**

**COURSE UNIT: 3 UNITS**

**TIME ALLOWED: 2 ½ Hrs**

**INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER FOUR (4) QUESTIONS**

**1a: What were the problems encountered during the early communication and the solutions. 6 marks**

**1b What were the principles that were applied to arrive at the seven (7) layers of the OSI model? 5 marks.**

**1c Critically analyze the TCP/IP model. 3 marks**

**1d With the help of a well labeled diagram write briefly on the types of network.  
(8 mark)**

**2a Write briefly on each networking hardware used for setting up a small network.  
( 7 marks)**

**2b With the aid of a diagram, describe a typical network. 5 marks**

**3a Explain how the data link accomplishes its task? 2 marks**

**3b With the help of diagram list and explain any four of the 7 layers of the OSI model  
(10 marks)**

**4a What are the advantages and disadvantages of peer-to-peer network? 4 marks**

**4b Describe the OSI model. 8 marks**

**5a State the advantages and disadvantages of the star topology. 6 marks**

**5b Compare the OSI and TCP/IP in a tabular form 6 marks**

**6a List the five (5) common topologies and explain any three of them: 10 marks**

**6b State 4 benefits LAN technology offers to system users 2 marks**