

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**  
(UGC-AUTONOMOUS)

**MCA (2Yrs) I Year I Semester (R18) Supplementary End Semester Examinations -Mar' 2021**  
(Regulations: R18)

**COMPUTER NETWORKS**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.  
In Q.no 1 to 5 answer either Part-A or B only

- Q.1(A) i. Compare the OSI model and TCP/IP model. 6M  
ii. Discuss different types of guided transmission media. 6M  
**OR**
- Q.1(B) Explain the need for Network Protocol Architecture with example. 12M
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- Q.2(A) What is access control? Explain CSMA in detail. 12M  
**OR**
- Q.2(B) Define flow control. Discuss Simple and Wait ARQ in detail. 12M
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- Q.3(A) i. Discuss the header format of IPv4 datagram. 6M  
ii. Differentiate between IPv4 and IPv6 packet headers. 6M  
**OR**
- Q.3(B) Define switching. Discuss the types of switching techniques in detail. 12M
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- Q.4(A) i. Define socket. State the role of port number and IP address. 4M  
ii. Provide TCP header format and explain each header field in detail. 8M  
**OR**
- Q.4(B) i) Write short notes on SMTP and FTP. 6M  
ii) Describe TCP protocol with its header fields in detail. 6M
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- Q.5(A) Explain Substitution and Transposition Cipher functionalities in detail. 12M  
**OR**
- Q.5(B) i. State the different types of attacks. 4M  
ii. Demonstrate the DES in detail. 8M

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