

Hall Ticket No:

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Question Paper Code: 16MCA407

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

**MCA(2Yrs) I Year II Semester (R16) Supplementary End Semester Examinations – Mar' 2021**  
(Regulations: R16)

**NETWORK SECURITY ESSENTIALS AND STANDARDS**

Time: 3Hrs

Max Marks: 50

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) Explain the OSI reference model in detail with a neat diagram 10M
- OR**
- Q.1(B) i. Discuss the methods to break an encryption scheme 5M  
ii. Compare and contrast the differences between virus and worms 5M
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- Q.2(A) i. What is meant by Secret Key Cryptography? Explain the concept of Secret Key Cryptography. 5M  
ii. Explain DES Algorithm 5M
- OR**
- Q.2(B) Explain RSA algorithm in detail with an example 10M
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- Q.3(A) Write a detailed note  
i. Password Based authentication 5M  
ii. Address Based authentication 5M
- OR**
- Q.3(B) Explain the concept of  
i. Session Key Establishment 5M  
ii. Deligation 5M
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- Q.4(A) What is meant by Kerberos algorithm? Explain Kerberos V4 10M
- OR**
- Q.4(B) Explain the Encapsulating Secure Payload Protocol in IP Security 10M
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- Q.5(A) i. What is meant by an Electronic Mail? Mention some protocols that involve in Email Security. 5M  
ii. Write short notes on Pretty Good Privacy Protocol (PGP) 5M
- OR**
- Q.5(B) i. Write short notes on MIME protocol 5M  
ii. Write short notes on POP 5M

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