

Mid-West University  
**Examinations Management Office**

Chance Examinations 2081

Bachelor level/ B.E. Computer/ 7<sup>th</sup> Semester

Time: 3 hours

**Subject: Network Security (CO476/CO557)**

Full Marks: 50

Pass Marks: 25

- *Attempt all the questions*
- *Figures in the margin indicate full marks.*
- *Assume suitable values, with a stipulation, if necessary.*
- *Candidates are required to answer the questions in their own words as far as possible.*

1. What is network security? Explain its types. [1+4]
2. What is Substitution technique? Encrypt the Message "Computer Network" using Caesar cipher with key  $K=3$ . [4]
3. Explain RSA Algorithm with example. [5]
4. Explain AES algorithm with neat block diagram. [6]
5. P and Q are two prime numbers.  $P=3$ , and  $Q=11$ . Take public key  $E=7$ . If plain text value is 31, then what will be cipher text value according to RSA algorithm? Again, calculate plain text value from cipher text. [5]
6. Explain message Authentication algorithm. Explain the types of authentication in detail. [2+4]
7. Explain IP security Architecture. [4]
8. What is Hash function? Explain digital signature algorithms. [3+3]
9. Explain briefly the desirable properties of secure communication. Explain, how Packet Filtering firewall works. [5]
- 10 Explain Secure Socket layer and Transport layer Security with suitable example. [2+2]

**The End**