Register Number: Date:

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27
M.Sc COMPUTER SCIENCE - I SEMESTER
SEMESTER EXAMINATION: OCTOBER 2018
CS7418 – ADVANCED COMPUTER NETWORK

Time- 2 1/2 hrs **Max Marks-70**

This paper contains 2 printed pages and three parts

ANSWER ANY SEVEN QUESTIONS **7*10=70**

1. a) Explain in detail about TCP/IP stack. 8 Marks

   b) Write a note on any one WAN standard. 2 Marks

2. a) What is classful IP addressing? Write the maximum number of addresses provided by each class. 6 marks

   b) Given IP Address: 192 . 100 . 10 . 33 Find the network address. 4 marks

3. a) Describe the protocol used for mapping logical address to Physical Address with example. 3 Marks

   b) Explain the header fields of IP format with diagram. 7 Marks

4. a) What is fragmentation? Explain how the fragment length is determined with a suitable example. 7 Marks

   b). Brief about BOOTP. 3 Marks

5. Explain Distance vector algorithm in detail with a neat diagram. 10 Marks

6. a) Differentiate Mono-alphabetic cipher and polyalphabetic cipher. 6 Marks

   b) Explain symmetric and Asymmetric Key Cryptography. 4 Marks

7. a) Convert “MEET ME” using Hill cipher with the key matrix.

Convert the cipher text back to plaintext. 5 Marks

b) Write the functions of firewalls. 5 Marks

8) Perform decryption and encryption using RSA algorithm

with p=3, q=11, e=7 and N = 5. 10 Marks

9. Write a note on a) IP security 5 Marks

b) VPN. 5 Marks

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