

Advanced Level
Information and Communication Technology

Time

S. Withanage

Year

Rev/paper/12

01. 198.168.10.0 and 198.168.10.32 are two network ip address which are function in adjacent. This network consist 08 subnets. Write down the other six net work ip addresses.
02. 198.168.10.0 and 198.168.10.64 are first two network ip address which are function in adjacent. This network consist 04 subnets. Write down the other two net work ip addresses.
03. 198.168.10.128 is a Network IP address which is belongs to two subnet. Write down the other network IP address.
04. Assume subnet has facility to connect 62 devices. What will be the subnet mask of this network.
05. Suggest suitable subnet mask to connect 2000 computer devices.
06. Suggest suitable subnet mask to connect 200 computer devices.
07. Organization has 198.168.10.25 IP address. They have three department namely as manufacturing, account and marketing. They expect to establish networks for each departments according to fulfil the following requirements

Department	Computer	Printer
Manufacturing	59	-
Account	47	02
Marketing	27	01

Use following table to write down the IP addresses details related with the above subnets.

	Network IP	First host IP	Last host IP	Broadcast IP	Subnet Mask
Manufacturing					
Account					
Marketing					

08. 198.168.10.0/27 is a ip address and subnet mask after did the subnetting. Using these information provide answers for following questions.
 - 8.1 Write down the network IP addresses.
 - 8.2 Write down the broadcasting IP address of each subnet.
 - 8.3 Write down host address range ?
 - 8.4 Write down classfull subnet mask ?

09. Using following details write down the classfull IP subnet mask.
198.168.10.25/29 ?

10. Organization currently using 172.16.24.25 IP address. They need to establish 64 subnets each should have 1022 computer devices. After sub netting process completed, write down the following informations related with first two subnets.

	Network IP	First Host IP	Last Host IP	Broad casting IP	Subnet Mask
Subnet 01					
Subnet 02					

11. What is a firewall and why we need firewall.

12. Organization has a Local Area Network. This network consist 05 computers and 01 printers connect with the switch. With the connection of the router employee can join with the internet. Organization has plan to control the visiting website by the workers during their working hours. What is suitable server for this. Organization has Local Area Network. This network has 5 computers and 01 printers. Draw the logical network diagram to show this network.

13. An organization has 03 departments as Products, Sales and Accounts. Separate LANs have been set up for these departments, and due to the large number of computers available on this network and the frequent connection and removal of computers on the network, the organization is required to assign IP addresses automatically. Suggest a suitable server for this purpose. Draw the network diagram with all the servers, switch and other devices.

14. An organization consists of 04 departments in IT, Marketing, Products and Accounting. Each of these departments has facility to access to the Internet. The Internet service provider provides Internet access to the Department of Information and Communication Technology. This department has enabled other departments to connect to the Internet.

The application program needed to carry out day to day task of each department is store in a special server attached with the ICT department. Distances between each department is nearly 650 meters.

- (a). What can be the server attached with the ICT department.
- (b). Suggest suitable cables for this network.

15. What is the purpose of DNS server. Draw the network diagram with the DNS.
