41. What is the supernet mask for the given networks below?
100.10.32.0/24, 100.10.33.0/24, 100.10.34.0/24, ... 100.10.47.0/24

A. /26 B. /20 C. /21 D. /24

42. A router uses the following routing table:

Destination	Mask	Interface
144.16.0.0	255.255.0.0	Eht 0
144.16.64.0	255.255.224.0	Eth 1
144.16.68.0	255.255.255.0	Eth 2
144.16.68.64	255.255.255.224	Eth 3

A packet bearing an estimated address 144.16.68.117 arrives at the router.
On which interface will it be forwarded ?

A. Eht 1
B. Eth 2
C. Eth 3
D. Eth 0

43. What is the supernet mask for the given below networks?

95.72.32.0/24, 95.72.33.0/24, 95.72.34.0/24, ... 95.72.47.0/24

A. /26 B. /20 C. /21 D. /24

44. A router has the following (CIDR) entries in the routing table.

Address/ mask	Next hop
138.48.56.0/22 138.48.60.0/22	I-0 I-1
192.150.48.0/23	R-1
default	R-2

Next hop for a packet with IP address 138.48.63.10

A. I-0 B. I-1 C. R-1 D. R-2

45. Which of the following IP addresses is matched by the address prefix 153.234.99.10/20?

A. 153.235.31.10 B. 153.234.95.23
C. 153.234.102.10 D.153.257.140.10

46. In an organisation, a class B address is given by the ISP. There are a total of 6 projects going in 6 different blocks, and each project wants its own subnet to do experiments. Each block in the organisation can be expanded at any time if a requirement arises. The company bought all the routers very long back so the routers are not upgraded with the "ip subnet zero" command. If you are the network administrator, what is the best subnet mask to use in this scenario?

Note: The routers configured with "ip subnet-zero" are the only routers to support the usage of first(with all the 0's in subnet bits place) and last subnet(with all the 1's in subnet bits place)

A. 255.255.0.0 B. 255.255.248.0
C. 255.255.224.0 D. 255.255.240.0

47. In an engineering college, the network administrator has IP 208.10.128.0/24. He needs to divide this network into 4 segments (ECE = 60, CSE = 120, EEE = 30, MEC = 30). ECE block got 208.10.128.0/26 as its address. Then what will be MEC block address?

A. 208.10.128.64/27 B. 208.10.128.96/27

C. A or B D. None

48. Which of the below range of hosts belong to a particular subnet in class B with IP address 182.168.0.0, if 4 bits are borrowed for subnetting from host ID part?

A. 182.168.17.1 to 182.168.22.254

B. 182.168.255.1 to 182.168.22.255

C. 182.168.17.1 to 182.168.32.255

D. 182.168.16.0 to 182.168.22.255

49. Consider the following addresses as the first IP addresses of subnets in Oxford University. Among those starting IPs, 4 IPs are given below, whose size is 1024 (i.e block has 1024 IP's). Which of the following IPs is/are a block of 1024 IPs?

1. 205.16.37.32 2.190.16.42.0

3. 17.17.32.0 4.123.45.24.52

A. 1 only B. 3 only C. 2 and 1 D. 4 and 3

50. How many subnets and number of hosts per subnet is possible?

For a class B network, which has a subnet mask of 255.255.248.0

(A) 30, 1024 (B) 30, 2046
(C) 32, 2046 (D) 126, 512

51. Consider a network having ID as 198.128.10.10/28. There is a wifi router connected to this network and 2 mobiles and a tablet are connected to this router. Apart from these

devices, 2 more desktops with 2 interfaces where the desktops are part of 2 different networks and a laptop exists in this network. How many IP addresses are still available after all the specified devices are connected?

A. 8 B. 10 C. 14 D. 12

52. You would like to set up an office LAN connected to the Internet via a dedicated router. There should be up to 511 hosts with IP addresses connected to the LAN. What is the longest possible netmask for the subnet (the LAN)?

A. 255.255.248.0 B. 255.255.252.0
C. 255.255.240.0 D. 255.255.0.0

53. Which of the following is not a valid private IP address?

(A) 192.38.44.52 (B) 192.168.65.84
(C) 172.19.192.224 (D) 172.30.11.22

54. Perform CIDR on the following /24 IP addresses, 200.96.86.0/24; 200.96.87.0/24; 200.96.88.0/24; 200.96.89.0/24; What is the resulting prefix?

A. 200.96.80.0/20 B. 200.96.86.0/22
C. 200.96.80.0/22 D. 200.96.86.0/20

55. Consider a DNS request sent from your laptop. If it is connected to Ethernet, what is the sequence of packet headers on this request packet starting from the outermost header? (We are using the term header loosely when it comes to DNS.)

A. Ethernet, IP, UDP, DNS B. DNS, UDP, IP, Ethernet
C. IP, TCP D. Ethernet, TCP, IP, DNS