

- ① An organization requests a range of IP addresses to assign one to each of its 1500 computers. The organization has approached an ISP for this task. The ISP uses CIDR and serves the request from the available IP address space  $200.61.00/17$ . The ISP wants to assign an address space through the organization which will minimize the number of routing entries in the ISP's router using route aggregation. Which of the following address spaces are potential candidates from which ISP can allot any one to the organization -

- (i)  $200.61.84.0/21$
- (ii)  $202.61.104.0/21$
- (iii)  $202.61.64.0/21$
- (iv)  $202.61.144.0$

- options -
- (A) (i) and (ii) only
  - (B) (iii) and (iv) only
  - (C) (ii) and (iii) only
  - (D) (i) and (iv) only

- ② Suppose computer A and B have IP addresses  $10.105.1.113$  and  $10.105.1.91$  respectively and they both use the same subnet mask. Which of the values of  $n$  given below should not be used if A and B should belong to the same network.

- options -
- (A)  $255.255.255.0$
  - (B)  $255.255.255.128$
  - (C)  $255.255.255.192$
  - (D)  $255.255.255.224$

- ③ Let a Data transmission done using Go-Back-N sliding window protocol where  $H_1$  as the receiver with size  $w_1$  and  $H_2$  as sender with size  $w_2$ . What is minimum necessary distinct sequence number needed?

options -

- ①  $(w_1 + w_2)/2$
- ②  $w_1 + 1$
- ③  $w_1 + 2$
- ④  $w_2 + 1$

④ Sender side data - 1011011

ECRC - 1101

any bit is corrected or not

⑤ In a CSMA/CD network running at 1 Gbps over 1 km cable with no repeaters, the signal speed in the cable 200000 km/s. what is minimum frame size?