## CS & IT





Classful Addressing
DPP 01 Discussion Notes



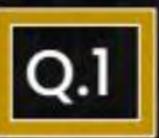
By- Ankit Doyla Sir



TOPICS TO BE COVERED

01 Question

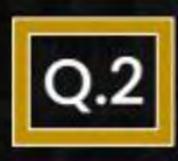
02 Discussion



Let 2<sup>p</sup> and 2<sup>q</sup> be the number of networks present in class B and class C under IPv4 addressing format, the value of p + q is [NAT] 35



No of 
$$n|w|s$$
 in class- $B = 2^{14} = 2^{14}$   
No of  $n|w|s$  in class- $C = 2^{9} = 2^{71}$   
 $a^{9} = 2^{14}$   $a^{9} = 2^{71}$   
 $a^{14} = 2^{14}$   $a^{14} = 2^{14}$   
 $a^{14} = 2^{14}$   $a^{14} = 2^{14}$   
 $a^{14} = 2^{14}$   $a^{14} = 2^{14}$ 



Which of the following is/are VALID IP addresses belonging to class C under IPV4 addressing format?

[MSQ]





191.82.129.75 → Class B



208. 21. 97. 120 → C qss-C

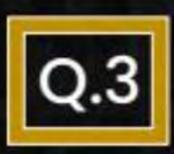


224. 82. 31. 128 → C qss-D



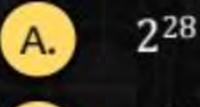
223. 32. 64. 124 → ( qss-c

(B,D)



Consider a hypothetical IPv4 address of 36 bits where class A contain 235 IP addresses. Then the number of IP address present in class D will be: (Assume classful address is used).





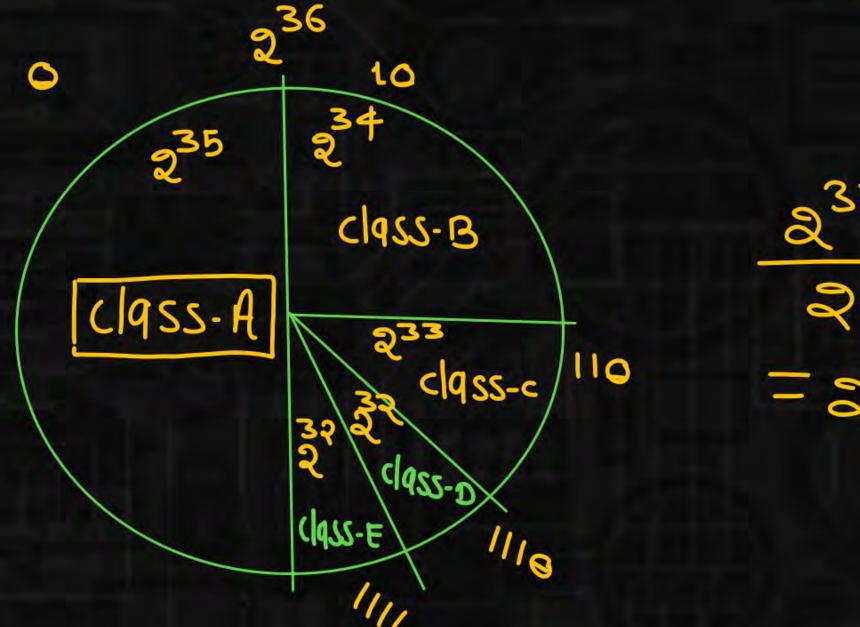
 $2^{32}$ 

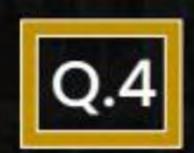


234



None of these





## Which of the following is/are correct?





Class A IPv4 address start form 0.0.0.0.



Class B IPv4 address start from 127.0.0.0.



Class C IPv4 address start from 191.0.0.0. ( | 92-223)



None of the above.



Consider the following statements-



I: The ratio of the number of IP addresses contained in class A to that of class E is 8:1.

II: The number of IP addresses contained in class D is 75% less than the number of IP addresses contained in class B.

Which of the above given statement(s) is/are INCORRECT?

A. I only

B. II only

C. Both I and II

D. Neither I nor II

No. of IP Addresses in classA = 231

8:1 (Correct)

classA = 230 class-B = 230 class-C = 239 class-C = 239 class-D = 238 class-E = 230



## Class-B

$$\frac{2^{8}[4-1]}{2^{3}} = \frac{3}{2^{8}} = \frac{3}{4} = \frac{75}{1}$$
 Correct



If the number of networks present in class B are 2<sup>m</sup>, then number of hosts present in class C are: (classful addressing scheme is followed)

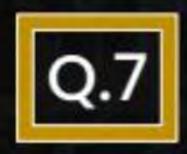


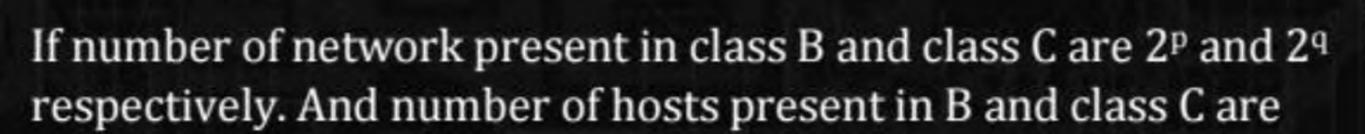


$$\sqrt{2^{m+2}} - 2 - \sqrt{2^{14+2}} - 2$$

$$\sqrt{2^{m+2}}-2$$
  $\sqrt{2^{l+2}}-2$  No. of Host Present in class-c =  $2^{l}-2$ 

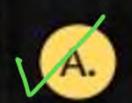






 $(2^{m}-2)$  and  $(2^{n}-2)$  respectively. Then which of the following





is/are correct?

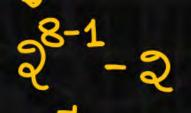
Relation between p and q will be 2q = 3p.



The number of networks present in class A 2<sup>n-1</sup> – 2 possible.



Relation between m and n will be m = 2n.





Relation between p and n will be 4p = 7n.

(A,B,C,D)

No of niw's Present in class-B = 
$$2^{\frac{P}{2}}$$
 No of Host Present in class B =  $2^{\frac{P}{2}}$  " class-C =  $2^{\frac{P}{2}}$  " =  $2^{\frac{16}{2}}$ 

= 216-2

No-of Host Present in class-c=2-2 = 28- 2

n=8



Which of the following IP address cannot be assigned to any host?





127.10.15.243



129.46.255.255 NID HID



Both (a) and (b)



None of the above.



