



TECNOLOGICO
NACIONAL DE MEXICO



*INSTITUTO TECNOLÓGICO DE
CANCÚN*

*INGENIERIA EN SISTEMAS
COMPUTACIONALES*

*FUNDAMENTOS DE TELECOM
CÁLCULO DE REDES*

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1.- IP = 10.0.0.0/8

MASK = 255.0.0.0

IP BINARIO

00001010.00000000.00000000.00000000

MASK BINARIO

11111111.00000000.00000000.00000000

NETWORK ID

00001010.00000000.00000000.00000000/8

10.0.0.0/8

WILDCARD

00000000.11111111.11111111.11111111

0.255.255.255

BROADCAST

00001010.11111111.11111111.11111111 = 10.255.255.255

PRIMERA IP = 00001010.00000000.00000000.00000001 = 10.0.0.1

ULTIMA IP = 00001010.11111111.11111111.11111110 =
10.255.255.254



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2.- 172.16.0.0/12

MASK 255.240.0.0

IP A BINARIO = 10101100.0001000.00000000.00000000

MASK IP = 11111111.11110000.00000000.00000000

NETWORK ID = 10101100.0001000.00000000.00000000/12 =
172.16.0.0/12

BROADCAST =

00000000.0000111111.11111111.11111111 = 0.63.255.255

PRIMERA IP = 10101100.0001000.00000000.00000001 = 172.16.0.1

ULTIMA IP = 10101100.0001000.11111111.11111110 =
172.16.255.254



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3.- 192.168.0.0/16

MASK 255.255.0.0

IP BINARIO = 11000000.10101000.00000000.00000000

MASK BINARIO = 11111111.11111111.00000000.00000000

NETWORK ID = 1100000000.00000000.00000000. 192.168.0.0/16

WILDCARD = 00000000.00000000.11111111.11111111 = 0.0.255.255

BROADCAST = 1100000000.10101000.11111111.11111111 =
192.168.255.255

PRIMERA IP = 11000000.10101000.00000000.00000001 =
192.168.0.1

ULTIMA IP = 1100000000.10101000.11111111.11111110 =
192.168.255.254