Q9) $P = C_n^k \; p^k (1-p)^{n-k}$

$= (k=0$, you missed all shots$)$
$p = 0.1$

$= C_n^0 \; 0.1^0 \; 0.9^n$

$= C_n^0 \; 0.9^n$

$n = 15, \; p = 0.21 \Rightarrow 1-P = 0.79$

$n = 16, \; P = 0.19 \Rightarrow 1-P = 0.81$

Q1) 10 ⇒ 00001010

1 ⇒ 00000001

5 ⇒ 00000101

65 ⇒ 01000001

It will send the packet to 10.1.5.64/29 as most bits match the destination and thus the packt will be sent to the s0 interface.

Q2) **131 => 10000011**

23 => 00010111

153 => 10010111

76 => 01001100

It will go to the 1 output interface as the most bits match from 131.22.0.0/15 to 131.23.151.76 in compariosn to other prefixes

Q3)

1. Next Hop D

2. Next Hop B

3. Next Hop D