

Part i)

1) $1/1000 = 0.001$

2) $1/10 * 9/10 * 1/10 = 9/1000 = 0.009$

3) $3 * (1/10 * 9/10 * 9/10) = 243/1000 = 0.243$

4) Probability of catching flu in two months out of three = $3 (1/10 * 1/10 * 9/10) = 27/1000$

Probability of catching flu all three months = $1/1000$

Total probability of catching flu in two or more of the three months =
 $27/1000 + 1/1000 = 28/1000 = 7/250 = 0.028$

Part ii)

$1/10 * 1/20 * 1/40 = 1/8000 = 0.000125$