20.3

Q1) $F_g = mg$

i) $m = 15kg \Rightarrow F_g = 15 \times 9.8 =$

ii) $m = 1.2 \times 1000 \Rightarrow F_g = 15 \times 1200 \times 9.8 =$

iii) $m = \frac{50}{1000} kg \Rightarrow F_g = \frac{1}{70} \times 9.8 =$

Q2) i) $w = 600N$, $m = \frac{600}{9.8} =$

ii) $w = 11 \times 10^3 N$, $m = \frac{11 \times 10^3}{9.8} =$

Q3) i) $m = 65kg$, $F_g = 65 \times 9.8$

ii) $F_{mg} = F_{eg}$ → Both reaction and action are equal

Q4) force of gravity on moon $\Rightarrow F_g = 70 \times 1.6$

Q5) i) As the gravitational acceleration is one (constant), $g = 9.8 ms^{-2}$, Both reach at one time

ii) as acceleration on moon is $g = 1.6 ms^{-2}$ which is less than $9.8 ms^{-2}$. So both bodies reach late, but reach at one time.