Question	Answer	Marks	AO Element	Notes	Guidance
1	W = m × g in any form (1) 0.12 × 10 (1) (weight =) 1.2 (N) (1)	**3**			
2	W = m x g (1) (W =) 0.21 × 10 (1) 2.1 (N) (1)	**3**			
3	balance	**1**			
4	W = mg in any form (1) 72 × 10 (1) 720 (N) (1)	**3**			
5	(weight =) mass × gravity in any form (1) 50 × 10 **OR** (20 × 10) + (30 × 10) (1) 500 (N) (1)	**3**			
6	balance	**1**			
7	W = mg in any form (1) (2.5 + 1.0 + 0.5) = 4 (1) 40 (1) N or newtons (1)	**4**			

Question	Answer	Marks	AO Element	Notes	Guidance
8	gravity **OR** weight	**1**			
9	2500 (g)	**1**			
10(a)	weight	**1**			
10(b)	W = m × g (1) m = 20 000 ÷ 10 (1) 2000 (kg) (1)	**3**			
11	W = m g **OR** (m =) W / g **OR** 3.0 ÷ 10 (1) 0.3 (kg) (1)	**2**			
12	W = m × g (1) 50 ÷ 1000 **OR** 0.05 seen (1) 0.5 (N) (1)	**3**			
13(a)	(downward force) weight **AND** (upward force) air resistance/friction/drag	**1**			
13(b)	(1.2 – 0.3) 0.9 (N)	**1**			
14	balance	**1**			

Question	Answer	Marks	AO Element	Notes	Guidance
15	D - weight ÷ mass	**1**			
16	B - force and weight	**1**			
17	B - Heavy objects always have more mass than light ones.	**1**			
18	any answer in range 40 to 100 kg **OR** equivalent in g	**B1**			
19	weight **OR** gravitational attraction	**B1**			
20	mass of chair is the same on the moon	**B1**			
21	0.012 (kg)	**B1**			c.a.o.
22	5000 (g)	**B1**			
23(a)	*(W = mg* = 1440 × 10 =*)* 14 400 N	**B1**			
23(b)	*(P =) F / A* OR 14 400 / (1.5 × 1.2)	**C1**			
	8000 Pa OR N / m^2	**A1**			

Question	Answer	Marks	AO Element	Notes	Guidance
24	B - 100 g + 50 g	**1**			
					[Total: 44]