7	**B is the only correct answer,** as $F = mg$ and $g = (9.81\ \text{m s}^{-2})$ /4	**(1)**

4	**B is the correct answer,** as $\Delta(PE)_{\text{grav}} = -\frac{GMm}{r_{\text{final}}} - \left(-\frac{GMm}{r_{initial}}\right)$	**(1)**

8	**C is the correct answer,** as $g_{\text{Mars}} = \frac{M_{\text{Mars}}}{M_{\text{moon}}} \times \frac{r^2_{\text{moon}}}{r^2_{\text{Mars}}} \times g_{\text{moon}}$	**(1)**

Question Number	Answer	Mark
1	**The only correct answer is D (Field strength is inversely proportional to (distance from the centre of each field)^2.)** A is not correct because an electric field only exerts a force on charged particles B is not correct because a gravitational force is always attractive C is not correct because Field strength $\propto 1/x^2$	1

6	**B is the only correct answer** A is not the correct answer, as gravitational potential increases C is not the correct answer, as gravitational force decreases and gravitational potential increases D is not the correct answer, as gravitational force decreases	**(1)**

10	**A is the only correct answer,** as $g = \frac{GM}{r^2}$	**(1)**

3	**C is the correct answer (both fields can produce repulsive forces)** A is not correct because both fields are radial B is not correct because both fields can exert attractive forces D is not correct because both fields obey an inverse square law for force	1

6	**A is the only correct answer (gravitational force and velocity both decrease)** B is not the correct answer, as velocity decreases C is not the correct answer, as gravitational force decreases D is not the correct answer, as gravitational force and velocity decrease	1

6	**B is the only correct answer** A is not the correct answer, as speed increases C is not the correct answer, as gravitational potential energy decreases and speed increases D is not the correct answer, as gravitational potential energy decreases	**(1)**

5	**C is the only correct answer**, as $\Delta E_{\text{grav}} = m\Delta V$ and ΔE_{grav} must be negative	1

9	**B is the correct answer (gravitational force between Earth and Moon decreases and gravitational potential energy of Moon increases)** A is not correct because gravitational potential energy (GPE) increases C is not correct because gravitational force decreases and GPE increases D is not correct because gravitational force decreases	1