| Question number | Answer | Notes | Marks |
|---|---|---|---|
| 10 (a) | ANY THREE of<br>particles in constant motion / particles have kinetic energy;<br>in random directions;<br>colliding with walls;<br>causing a force on the walls;<br>Pressure = force /area; | Answers need to refer to particles / molecules rather than 'the gas is...'<br><br>ALLOW 'Hitting the walls' / 'bouncing off the walls'<br>ALLOW 'push' / 'pushing' | 3 |
| (b) (i) | (pressure would) increase; | | 1 |
| (ii) | (higher temp) increases (average) speed / kinetic energy of particles;<br>So collide with walls more often / at higher speed; | IGNORE references to 'heating the particles'<br>ALLOW 'hit harder' | 1<br>1 |
| (c) | Use of $p_1V_1 = p_2V_2$ (equation given) /substitution;<br><br>2000 ($cm^3$); | 2000 alone scores 2 | 2 |
| | | **Total** | **8** |