Edexcel AS Chemistry Exam practice answers

1: Atomic structure and the Periodic Table

1 (a) B (✓)

 (b) The relative isotopicmass is the mass of a single isotope of an element (✓) relative to 1/12 the mass of a carbon-12 atom; (✓) the relative atomicmass is the weighted average mass of the isotopes of the element (✓)

 (c) C (✓)

 (d) Let x be the fraction of 69Ga

 69.8 = 69*x* + 71(1 − *x*) (✓)

 −2*x* = 69.8 − 71= −1.2 (✓)

 *x* = 0.6 (or 60%) 69Ga and 40% 71Ga (✓)

2 (a)

 (✓✓✓)

 (b) (i) C (✓)

 (ii) Group 4; (✓) a big jump in value; (✓) between the 4th and 5th ionisation energies (✓)

 (c)



Axes labelled 1st IE on *y*-axis and atomic number on *x*-axis; (✓) correct relative positions of first three elements; (✓) rest of sketch (✓)

 (d) (i) Electron removed from 2p; which is at higher energy level (✓)

 (ii) Electron removed from one of a pair; so easier (✓)

 (iii) 3s electron further from nucleus/ more shielded (✓)

 (e)

 (✓)