Solutions

2.1

- The neutrophil; chronic inflammation is defined by its absence ✓.

2.2

- ~50 % ✓.

2.3

- Granulation tissue = repair (vessels + collagen); granuloma = aggregated macrophages walling off a persistent stimulus ✓.

3.1

- Day 5: macrophages dominant, neutrophils receding ✓.
- Fibroblasts and new vessels – granulation tissue, on schedule (days 3–7) ✓.
- Weak because type III collagen only; ~10–20 % at this stage ✓.
- ~50 % at 1 month; ~80 % at 3 months as type I replaces III ✓.

3.2

- A granuloma – aggregated macrophages (with lymphocytes) ✓.
- Caseous centre → mycobacteria (TB) pattern; non-caseous → sarcoid pattern ✓.
- Necrosis implies organisms digesting tissue – stain and culture for TB before treating as sterile sarcoid ✓.