

Engineering Tripos Part IIA 2006 Module 3C1
Manufacturing Engineering Tripos Part I 2006 Paper P4A

Numerical answers

3(b) (i) (very approximately) 10000 °C/min

(ii) air 1 mm; oil 22mm; water 30 mm.

(iii) air: 30% ferrite, 10% pearlite, 57% bainite, 3% martensite (approximate values);
oil: 100% martensite.

(iv) 50mm.

(v) air, surface and centre hardness the same, HV = 260; water, surface hardness HV
= 600.