

ENGINEERING TRIPOS PART IIA 2013/2014
MODULE 3D2: GEOTECHNICAL ENGINEERING II

1. (a) $v = 1.979$
(b) $q = 126.5 \text{ kPa}$, $v = 1.96$
(c) $q = 56.0 \text{ kPa}$, $v = 2.05$
(d) At yield $q = 123.4 \text{ kPa}$, At failure 113.1 kPa ,

2. (a) 510 kPa
(b) 660 kPa , 0.06 mm
(c) 1531 kPa
(d) –
(e) 95 mm

3. (a) (i) 105.6 kPa , (ii) 121.25 kPa
(b) 179.1 kPa
(c) 89.1 kPa

4. (a) 19.31 kN/m^3
(b) 26.0 kPa
(c) 30.8 degrees
(d) 1.76 , 1.22
(e) 4.01 kPa , 33.4 kPa