

1.

2.

3.

4. (b) $M_2=472 \times 10 \mu\text{m}$; $M_1=95 \times 10 \mu\text{m}$. S-S gain – 7.15; $R_{out} = 55.5 \text{ k}\Omega$

5. (i) 375 ns. (ii) 6 stages, 16.2 ns (including the min geom. stage)