Q1. 23 January Shift 1

In a screw gauge, the zero of the circular scale lies 3 divisions above the horizontal pitch line when their metallic studs are brought in contact. Using this instrument thickness of a sheet is measured. If pitch scale reading is 1 mm and the circular scale reading is 51 then the correct thickness of the sheet is ____ mm.
[Assume least count is 0.01 mm]

(1) 1.50 (2) 1.48 (3) 1.54 (4) 1.51

Q2. 24 January Shift 2

In a vernier callipers, 50 vernier scale divisions are equal to 48 main scale divisions. If one main scale division $= 0.05$ mm, then the least count of the vernier callipers is ____ mm.

(1) 0.005 (2) 0.05 (3) 0.002 (4) 0.02

Q3. 28 January Shift 1

When both jaws of vernier callipers touch each other, zero mark of the vernier scale is right to zero mark of main scale, 4^{th} mark on vernier scale coincides with certain mark on the main scale. While measuring the length of a cylinder, observer observes 15 divisions on main scale and 5^{th} division of vernier scale coincides with a main scale division. Measured length of cylinder is ____ mm.
(Least count of Vernier calliper $= 0.1$ mm)

(1) 15.5 (2) 15.9 (3) 15.1 (4) 15.4

Q4. 28 January Shift 2

In an experiment, a set of reading are obtained as follows - 1.24 mm, 1.25 mm, 1.23 mm, 1.21 mm. The expected least count of the instrument used in recording these readings is ____ mm.

(1) 0.001 (2) 0.1 (3) 0.01 (4) 0.05

ANSWER KEYS

1. (2) **2.** (3) **3.** (3) **4.** (3)