FLUID FLOW

1. A
2. B
3. A
4. C

5. (a) (i) smooth steady flow

(ii) Irregular flow due to particles having different velocities

(b) (i) \[ AV = KP \text{ if symbols different} \]

\[ A - \text{Area of crossection} \]
\[ V - \text{Velocity of the fluid} \]
\[ K - \text{Constant} \]

(ii) The fluid is

Flowing steadily

Incompressible i.e. changes in pressure produce insignificant change in its density

Non viscous

(iii) \[ A_1V_1 = A_2V_2 \]
\[ 10^{-4} \times 48 V_1 = 12 \times 10^{-4} \times 4 \]
\[ V_1 = 1 \text{ ms}^{-1} \]

(c) (i) provided a fluid is non viscous; in compressible and its flow stream line; an increase in its velocity produces a corresponding decrease in the pressure it exerts

(ii) Spinning ball; lifting light ball using a funnel; raising of paper when blown over gently, aerofoil,

6. \[ V_2 \text{ is less than } V_1 \text{ P (1mk)} \]