The velocity distribution for laminar flow through a Circular tube

a. Is constant over the cross-section
b. Varies linearly from zero at walls to maximum at centre
c. Varies parabolically with maximum at the centre
d. None of the above

A value is suddenly closed in a water main in which the velocity is 1 m/sec the inertia head at the value will be

a. 1 m
b. 10 m
c. 100 m
d. None of the above

The speed of a pressure wave through a pipe depends upon

a. The length of pipe
b. The viscosity of fluid
c. The bulk modulus for the fluid
d. The original head

The length of a pipe is 1 km and its diameter is 20 cm. If the diameter of an equivalent pipe is 40 cm, then Its length is

a. 32 km
b. 20 km
c. 8 km
d. 4 km

Two pipe of same length and diameter d and 2d respectively are diameter in series. The diameter of An equivalent pipe of same length is

a. Less than is
b. Between d and 1.5 d
c. Between 1.5 and 2d
d. Grater than 2d

The boundary layer thickness at a distance of 1 m from The leading edge a flat plate, kept at zero angle of incidence to the flow direction, is 0.1 cm. the velocity outside the boundary layer is 25 m/sec. the boundary layer thickness at a distance of 4 m is assume that Boundary layer is entirely laminar.

a. 0.40 cm
b. 0.20 cm
c. 0.10 cm
d. 0.05 cm

The critical depth of flow in a most economical triangular channel section for a discharge of 1 m³/sec is given by

a. $\left(\frac{1}{9.8}\right)^{1/5} metre$
b. $\left(\frac{1}{9.8}\right)^{1/3} metre$
c. $\left(\frac{1}{4.9}\right)^{1/5} metre$
d. $\left(\frac{1}{4.9}\right)^{1/3} metre$

The critical velocity for a flow of q m /sec/metre width of a wide rectangular channel is given by

a. $\left(\frac{q^2}{g}\right)^{1/3}$

b. $(qq)^{1/3}$

c. $\sqrt{qg}$

d. None of the above

In a 2 m wide rectangular channel uniform flow occurs at a depth of 2 m, the velocity of flow being $\sqrt{2}$ m/sec. the height of jump which be raised without Causing afflux will be

a. 0
b. 1 m
c. 2 m
d. 3 m