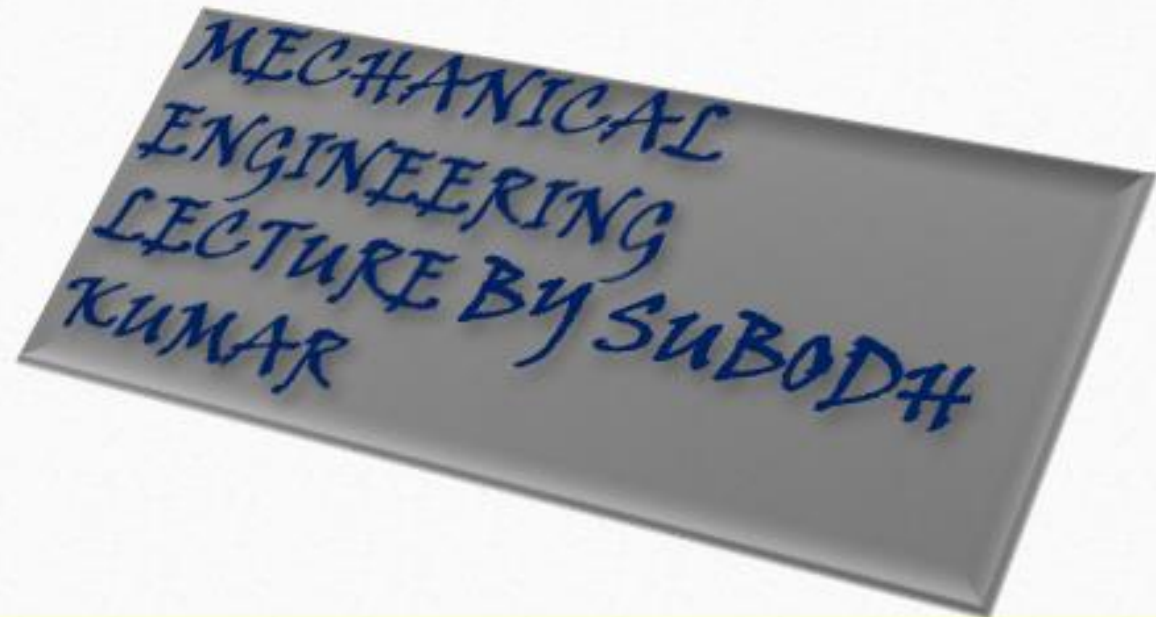




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(1) With increase in temperature ,viscosity of a fluid

(a) Does not change

(b) Always increases

(c) Always decreases

(d) May increase or decrease depending on the type of fluid that is gas or liquid.

(2) A fluid is said to be Newtonian fluid when the share stress is

(1995 : 1 Marks)

- (a) Directly proportional to the velocity gradient
- (b) Inversely proportional to the velocity gradient
- (c) Independent of the velocity gradient
- (d) None of these

(3) The SI unit of kinematic viscosity (ν) is

[2001: 1 Marks]

(a) m^2/sec

(b) $\text{Kg}/\text{m}\cdot\text{sec}$

(c) m/sec^2

(d) M^3/sec^2

(4) For a Newtonian fluid

[2006 : 1 Marks]

- (a) Shear stress is proportional to shear strain
- (b) Rate of shear stress is proportional to shear strain
- (c) Shear stress is proportional to rate of shear strain
- (d) Rate of shear stress is proportional to rate of shear strain

(5) The velocity distribution for flow over a plate is given by $u = 0.5y - y^2$ where u is the velocity in m/s at a distance y meter above the plate . If the dynamic viscosity of the fluid is 0.9 Ns/m^2 , then what is the shear stress at 0.20 m from the boundary.

[IES = 2005]

- (a) 0.9 N/m^2
- (b) 1.8 N/m^2
- (c) 2.25 N/m^2
- (d) 0.09 N/m^2

THANKYOU