**Viscosity**

(1.)Essential property of good lubricant

(a)High viscosity (b)High surface tension (c)High density (d)none of them.

(2.)The flow rate of water become high from a hole in the tank if hole is:

(a)near the bottom (b)near the top surface (c)in mid (d)does not depend on the position of the of hole.

(3.)A hole is placed near the bottom of the tank. Volume of water flowing from the hole per sec does not depend on.

(a)Area of hole (b) height of liquid above the hole (c)Density of liquid

(d)gravity.

(4.) Aeroplane works on

(a)Archimidies principal (b)Bernoulli principal (c)Pascal law (d)stoker law

(5.)Pentagun is based on

(a)Bernoulli theorem (b)Boyal’s law (c)law of Faraday (d)Archimidies principle .

(6.)When the velocity of liquid flowing in a tube increase then its pressure

(a)increase (b) decrease (c)become half (d)none.

(7.)Bernoulli theorem is based on

(a) conservation of momentum (b)conservation of pressure (c)conservation of energy (d) conservation of mass.

(8.)Acceleration of a body dropping in a viscous fluid with terminal velocity

(a) 0 (b)g (c)less than g (d) more than g.

(9.)Viscous force acting on a sphere of radius r is proportional to

(a)r (b)r² (c) $r^{-1}$ (d)$r^{3}$

(10.)S.I unit of coeff of viscosity

(a)Kg ms (b)Kg$m^{-1}s^{-1}$ (c)Kgm$s^{-3}$ (d)Kg$m^{-2}s-^{2}$

(11.) 1 poise is how much time of S.I unit of viscosity

(a)10 times (b)equal (c)$\frac{1}{10}$ times (d)$\frac{1}{100}$ part

(12.)Terminal velocity of sphere of radius r is proportional to

(a) r (b) r² (c)$r^{3}$ (d)$\frac{1}{r}$

(13.) For narrow tube Reynolds number is equal to

(a)1 (b)10 (c)1000 (d)$10^{-6}$

(14.)Viscosity of liquid varies with the increase in temp

(a) decrease (b) increase (c)remain same (d) first increase than decrease

(15.)While increasing the temp the viscosity of gases.

(a)decreasing (b)increase (c)remain same (d) none.

(16.)Terminal velocity of oil drop dropping in air

(a)Proportional to radius of drop (b)proportional to the square of radius (c)inversely proportional to the radius (d)none.

(17.)Reason for viscosity

(a)Cohesive force (b)Adhesive force (c)Surface tension (d) none.

(18.)Viscosity of an ideal fluid

(a)0 (b)$\infty $ (c)1 (d)other

(19.)Reason for floating of cloud in Atmosphere because of its less

(a)Temp (b)velocity (c)Pressure (d)density.

(20.)Which liquid is more viscous

(a)oil (b)milk (c)water (d)petrol

(21.)When two rain drop having same radius are dropping in air with a terminal velocity of .1m/s. Find the terminal velocity if both drop combine.

(a).1m/s (b).2m/s (c).4m/s (d)none.

(22.)If level of water is 4.9m. If a narrow hole is made at the bottom of tank. find the velocity of efflux.

(a)10m/s (b)9.8m/s (c)8m/s (d)none.

(23.)If level of water is 4.9m.If a narrow hole is made at the bottom of tank .If Area of cross section if hole is 1 square mm find the flow rate

(a)9.8$×10^{-6}m^{3}$/sec (b)9.8$×10^{-4}m^{3}$/sec (c)$10^{4}m^{3}$/sec (d)none

(24.)If the pressure difference between the two part of a tube is $10^{8}N/m^{2.}$Find the work done to push $10^{3}m^{3} $ water inside the tube.

(a)$10^{-8}$J (b)$10^{8}$J (c)$10^{-9}$J (d)$10^{9}$J

(25.)If velocity head is 1.25m.Find the velocity of water

(a)2.5m/s (b)10m/s (c)5m/s (d)15m/s

(26.)If the inside radius of tube is 3 cm and water is flowing at a speed of 3 m/s. Find the flow rate

(a).00847$m^{3}$/s (b).008$m^{3}$/s (c).0085$m^{3}$/s (d)none.

(27.)If radius of tube is 3cm and the flow rate is 36 L/hr. find the velocity

(a).3c.m/s (b).35c.m/s (c).37c.m/s (d).38c.m/s

(28.)If the ratio of terminal speed of two rain drop are 1:4 .find the ratio of their masses

(a)1:2 (b)1:4 (c)1:8 (d)1:16

(29.)If the ratio radius of two small sphere are 1:2 are dropping in a liquid with same speed. Find the ratio of viscous force

(a)1:2 (b)2:1 (c)1:4 (d)4:1

(30)Viscous force acting on a solid ball moving with a terminal velocity $μ$ in air is proportional to

(a)$\sqrt{v}$ (b)$μ$ (c)$\frac{1}{\sqrt{v}}$ (d)$μ²$

(31.)If the velocity of a layer at a distance of 10 c.m from the top is 20cm/s. find the speed of layer which is at a distance of 40c.m

(a)10c.m/s (b)20c.m/s (c)30c.m/s (d)80c.m/s

(32.)If the radius of artiry decrease to become half of original radius. Find the ratio of pressure after and before

(a)1:16 (b)16:1 (c)1:8 (d)8:1