5. Kinematic of Flow

1. The continuity equation in Fluid mechanics emboly ing the Principle of (Chall-08) (SSC-09)
a) Conservation of energy b) Conservation of mass c) Conservation of Momentum
d) None.

2. If the Fluid Particle move in zig-zag way the Flow is (UKD-JE-2008)
a) Unsteady b) Uniform c) turbulent d) incompressible

3. An Ideal Flow of any Fluid must satisfy. (SSC JE-09)-10)+SJVNL-14)
a) Pascal's Law b) Newton's Law of viscosity c) Boundary layer theory
d) Continuity equation

4. The Flow which Neglects changes in a Transverse direction is known as (SSC-09)
a) one-dimensional Flow b) Uniform Flow c) steady flow d) turbulent Flow.

5. The equation of continuity holds good when the Flow. (SSC JE-10)
a) Is steady b) Is one dimensional c) Velocity is uniform at all the cross section
d) All

6. Continuity equation can take the form. (UKD-13)
a) $A_1V_1 = A_2V_2$ b) $\rho_1 A_1 = \rho_2 A_2$ c) $\rho_1 A_1 V_1 = \rho_2 A_2 V_2$ d) None

7. Flow Between any two Stream line (SSC JE-12)
a) Increase along its Path b) decrease along its Path c) Zero d) same

8. The concept of Stream function which is Based on the Principle of continuity is to Abkli cable. (MP-JE-11)
a) 3-D Flow b) 2-D Flow c) Uniform flow Case only d) Irrotational Flow only

9. An fluid is one which (MP-JE-11)
a) Is Incompressible b) Is compressible c) has Neglected surface Tension
d) Is nonviscous and Incompressible.

10. continuity equation for a Compressible Fluid is (SSC JE-15)
a) $A_1V_1 = A_2V_2$ b) $\rho_1 A_1 V_1 = \rho_2 A_2 V_2$ c) $\frac{A_1V_1}{\rho_1} = \frac{A_2V_2}{\rho_2}$ d) $\frac{\rho_1 A_1}{V_1} = \frac{\rho_2 A_2}{V_2}$

11. The continuity equation for a steady Flow states that (UPRVUNL-JE-15)
a) velocity field is continuous at all Point in the Flow field
b) velocity is Tangential to the Streamline
c) stream function exists for steady Flow
d) Efflux Rate of Mass through the control surface is Zero.

12. The general equation of continuity for three dim. flow of a compressible fluid for steady flow is. (PTCUL' AE'17)

a) $\frac{\partial u}{\partial x}+\frac{\partial v}{\partial y}+\frac{\partial w}{\partial z}=0$ b) $\frac{\partial u}{\partial x}+\frac{\partial v}{\partial y}+\frac{\partial w}{\partial z}=1$, c) $\frac{\partial u}{\partial x}=\frac{\partial v}{\partial y}=\frac{\partial w}{\partial z}=0$ d) None

13. Steady flow occurs when (SSC-16)

a) Pressure do't change Along the flow b) velocity do't change

c) Condition change gradually with time d) Condition do't change with time at Any Point

14. Surge wave is an example of (SSC-16)

a) steady uniform flow b) Steady non uniform flow c) unsteady uniform flow

d) unsteady non uniform flow

15. What is the state, in which none of the properties of the system change with time, known as (SSC-JE-16)

a) unsteady state b) steady state c) Dynamic d) quasistatic

16. For the equation $\vec{\nabla}\cdot\vec{v}=0$ to be valid, $\vec{v}$ velocity vector, which one of the Following is a necessary condition. (SSC JE-16)

a) Steady flow b) Irrotational flow c) Inviscous flow

d) Incompressible flow.

17. A flow whose streamline is Represented By a curve, is

a) one-D flow b) 2-D flow c) 3-D flow d) 4-D flow

18. If the stream function is given by $\psi=3xy$, Then the velocity at a Point (2,3). will be - (UJVNL-AE-16)

a) 7.21 unit b) 10.82 unit c) 18 unit d) 54 unit

Key.

1-b	6-c	11-d	16-d
2-c	7-d	12-a	17-b
3-d	8-b	13-d	18-b
4-a	9-d	14-d	
5-d	10-b	15-b	