

Name: \_\_\_\_\_ Hall Ticket No.

						A				
--	--	--	--	--	--	---	--	--	--	--

**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.****I Choose the correct alternative:**

- Reynold number is the ratio of [      ]  
 (A) Intertial force /Viscous force (B) Intertial force / Friction force  
 (C) Intertial force / Roughness (D) None
- Velocity of sound wave is given by \_\_\_\_\_. [      ]  
 (A)  $\sqrt{RT}$  (B)  $\sqrt{RT}$  (C)  $\sqrt{RT/P}$  (D) All of them
- Mach angle  $\sin \alpha =$  [      ]  
 (A)  $C/V$  (B)  $V/C$  (C)  $VC$  (D)  $V+C$
- For sonic flow mach number is [      ]  
 (A) Equal to one (B) Less than one (C) Greater than one (D) None
- If  $10^7 < Re < 5 \times 10^5$  the boundary layer thickness is equal to [      ]  
 (A)  $0.37 x / Re^{1/4}$  (B)  $0.37x / Re^{1/5}$  (C)  $0.37x / Re^{1/6}$  (D)  $0.37x / Re^{1/7}$
- Chezy's constant is \_\_\_\_\_. [      ]  
 (A)  $H_f / L$  (B)  $HL$  (C)  $L / h_f$  (D)  $h_f / x$
- Total energy line is always \_\_\_\_\_ hydraulic gradient line. [      ]  
 (A) Parallel and above (B) Parallel and below (C) Perpendicular (D) None
- The units of gas constant is [      ]  
 (A) J/k (B) J/KgK (C) J/Kg (D) Kg/J
- If  $Re < 2000$  the coefficient friction is [      ]  
 (A)  $Re / 16$  (B)  $16 / Re$  (C)  $0.079 / Re$  (D)  $Re / 0.079$
- If  $\frac{\partial u}{\partial y}$  at  $y=0 = -ve$  the flow condition is [      ]  
 (A) Separation (B) detached flow (C) attached flow (D) laminar flow

**Cont.....2**

**II Fill in the blanks:**

11. Bulk modulus = \_\_\_\_\_.
12. Hydraulic mean depth means \_\_\_\_\_.
13. If there is no effect of disturbance in the region outside the Mach cone. This region is called \_\_\_\_\_.
14. The resultant velocity becomes '0' the values of pressure, temperature and density at that point are called \_\_\_\_\_.
15. If the flow in which density does not remain constant during flow is called \_\_\_\_\_ flow.
16. If the Mach no.  $> 1$  the flow is called \_\_\_\_\_.
17. Major energy losses occurs due to \_\_\_\_\_.
18. Vonkarman momentum integral equation = \_\_\_\_\_.
19. The \_\_\_\_\_ process is used to transfer liquid from a reservoir at a higher elevation to lower level separated by a hill.
20. Total drag on plate is \_\_\_\_\_.

-oOo-

Name: \_\_\_\_\_ Hall Ticket No.

						A				
--	--	--	--	--	--	---	--	--	--	--

**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.****I Choose the correct alternative:**

- For sonic flow mach number is [      ]  
(A) Equal to one      (B) Less than one      (C) Greater than one      (D) None
- If  $10^7 < Re < 5 \times 10^5$  the boundary layer thickness is equal to [      ]  
(A)  $0.37 x / Re^{1/4}$       (B)  $0.37x / Re^{1/5}$       (C)  $0.37x / Re^{1/6}$       (D)  $0.37x / Re^{1/7}$
- Chezy's constant is \_\_\_\_\_. [      ]  
(A)  $H_f / L$       (B)  $HL$       (C)  $L / h_f$       (D)  $h_f / x$
- Total energy line is always \_\_\_\_\_ hydraulic gradient line. [      ]  
(A) Parallel and above      (B) Parallel and below      (C) Perpendicular      (D) None
- The units of gas constant is [      ]  
(A) J/k      (B) J/KgK      (C) J/Kg      (D) Kg/J
- If  $Re < 2000$  the coefficient friction is [      ]  
(A)  $Re / 16$       (B)  $16 / Re$       (C)  $0.079 / Re$       (D)  $Re / 0.079$
- If  $\partial w / \partial y$  at  $y=0 = -ve$  the flow condition is [      ]  
(A) Separation      (B) detached flow      (C) attached flow      (D) laminar flow
- Reynold number is the ratio of [      ]  
(A) Intertial force /Viscous force      (B) Intertial force / Friction force  
(C) Intertial force / Roughness      (D) None
- Velocity of sound wave is given by \_\_\_\_\_. [      ]  
(A)  $\sqrt{E/\rho}$       (B)  $\sqrt{RT}$       (C)  $\sqrt{E/P}$       (D) All of them
- Mach angle  $\sin \alpha =$  [      ]  
(A)  $C / V$       (B)  $V / C$       (C)  $VC$       (D)  $V+C$

**Cont.....2**

**II Fill in the blanks:**

11. The resultant velocity becomes '0' the values of pressure , temperature and density at that point are called \_\_\_\_\_.
12. If the flow in which density does not remain constant during flow is called \_\_\_\_\_ flow.
13. If the Mach no.  $< 1$  the flow is called \_\_\_\_\_.
14. Major energy losses occurs due to \_\_\_\_\_.
15. Vonkarman momentum integral equation = \_\_\_\_\_.
16. The \_\_\_\_\_ process is used to transfer liquid from a reservoir at a higher elevation to lower level separated by a hill.
17. Total drag on plate is \_\_\_\_\_.
18. Bulk modulus = \_\_\_\_\_.
19. Hydraulic mean depth means \_\_\_\_\_.
20. If there is no effect of disturbance in the region outside the Mach cone. This region is called \_\_\_\_\_.

Name: \_\_\_\_\_ Hall Ticket No.

						A				
--	--	--	--	--	--	---	--	--	--	--

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

**I Choose the correct alternative:**

- Chezy's constant is \_\_\_\_\_. [     ]  
(A)  $H_f / L$  (B)  $HL$  (C)  $L / h_f$  (D)  $h_f / x$
- Total energy line is always \_\_\_\_\_ hydraulic gradient line. [     ]  
(A) Parallel and above (B) Parallel and below (C) Perpendicular (D) None
- The units of gas constant is \_\_\_\_\_ [     ]  
(A) J/k (B) J/KgK (C) J/Kg (D) Kg/J
- If  $Re < 2000$  the coefficient friction is \_\_\_\_\_ [     ]  
(A)  $Re / 16$  (B)  $16 / Re$  (C)  $0.079 / Re$  (D)  $Re / 0.079$
- If  $\partial w / \partial y$  at  $y=0 = -ve$  the flow condition is \_\_\_\_\_ [     ]  
(A) Separation (B) detached flow (C) attached flow (D) laminar flow
- Reynold number is the ratio of \_\_\_\_\_ [     ]  
(A) Intertial force / Viscous force (B) Intertial force / Friction force  
(C) Intertial force / Roughness (D) None
- Velocity of sound wave is given by \_\_\_\_\_. [     ]  
(A)  $\sqrt{RT}$  (B)  $\sqrt{RT}$  (C)  $\sqrt{R/P}$  (D) All of them
- Mach angle  $\sin \alpha =$  \_\_\_\_\_ [     ]  
(A)  $C / V$  (B)  $V / C$  (C)  $VC$  (D)  $V+C$
- For sonic flow mach number is \_\_\_\_\_ [     ]  
(A) Equal to one (B) Less than one (C) Greater than one (D) None
- If  $10^7 < Re < 5 \times 10^5$  the boundary layer thickness is equal to \_\_\_\_\_ [     ]  
(A)  $0.37 x / Re^{1/4}$  (B)  $0.37x / Re^{1/5}$  (C)  $0.37x / Re^{1/6}$  (D)  $0.37x / Re^{1/7}$

Cont.....2

**II Fill in the blanks:**

11. If the Mach no.  $< 1$  the flow is called \_\_\_\_\_.
12. Major energy losses occurs due to \_\_\_\_\_.
13. Vonkarman momentum integral equation = \_\_\_\_\_.
14. The \_\_\_\_\_ process is used to transfer liquid from a reservoir at a higher elevation to lower level separated by a hill.
15. Total drag on plate is \_\_\_\_\_.
16. Bulk modulus = \_\_\_\_\_.
17. Hydraulic mean depth means \_\_\_\_\_.
18. If there is no effect of disturbance in the region outside the Mach cone. This region is called \_\_\_\_\_.
19. The resultant velocity becomes '0' the values of pressure, temperature and density at that point are called \_\_\_\_\_.
20. If the flow in which density does not remain constant during flow is called \_\_\_\_\_ flow.

Name: \_\_\_\_\_ Hall Ticket No.

						A			
--	--	--	--	--	--	---	--	--	--

**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.****I Choose the correct alternative:**

- The units of gas constant is [      ]  
(A) J/k (B) J/KgK (C) J/Kg (D) Kg/J
- If  $Re \leq 2000$  the coefficient friction is [      ]  
(A)  $Re / 16$  (B)  $16 / Re$  (C)  $0.079 / Re$  (D)  $Re / 0.079$
- If  $\frac{dw}{dy}$  at  $y=0$  = -ve the flow condition is [      ]  
(A) Separation (B) detached flow (C) attached flow (D) laminar flow
- Reynold number is the ratio of [      ]  
(A) Intertial force /Viscous force (B) Intertial force / Friction force  
(C) Intertial force / Roughness (D) None
- Velocity of sound wave is given by \_\_\_\_\_. [      ]  
(A)  $\sqrt{E/\rho}$  (B)  $\sqrt{RT}$  (C)  $\sqrt{E/P}$  (D) All of them
- Mach angle  $\sin \alpha =$  [      ]  
(A)  $C / V$  (B)  $V / C$  (C)  $VC$  (D)  $V+C$
- For sonic flow mach number is [      ]  
(A) Equal to one (B) Less than one (C) Greater than one (D) None
- If  $10^7 \leq Re \leq 5 \times 10^5$  the boundary layer thickness is equal to [      ]  
(A)  $0.37 x / Re^{1/4}$  (B)  $0.37x / Re^{1/5}$  (C)  $0.37x / Re^{1/6}$  (D)  $0.37x / Re^{1/7}$
- Chezy's constant is \_\_\_\_\_. [      ]  
(A)  $H_f / L$  (B)  $HL$  (C)  $L / h_f$  (D)  $h_f / x$
- Total energy line is always \_\_\_\_\_ hydraulic gradient line. [      ]  
(A) Parallel and above (B) Parallel and below (C) Perpendicular (D) None

**Cont.....2**

**II Fill in the blanks:**

11. Vonkarman momentum integral equation = \_\_\_\_\_.
12. The \_\_\_\_\_ process is used to transfer liquid from a reservoir at a higher elevation to lower level separated by a hill.
13. Total drag on plate is \_\_\_\_\_.
14. Bulk modulus = \_\_\_\_\_.
15. Hydraulic mean depth means \_\_\_\_\_.
16. If there is no effect of disturbance in the region outside the Mach cone. This region is called \_\_\_\_\_.
17. The resultant velocity becomes '0' the values of pressure, temperature and density at that point are called \_\_\_\_\_.
18. If the flow in which density does not remain constant during flow is called \_\_\_\_\_ flow.
19. If the Mach no.  $< 1$  the flow is called \_\_\_\_\_.
20. Major energy losses occurs due to \_\_\_\_\_.

**-oOo-**