Fluid Mechanics Interview Questions and Answers are given.

Q) Explain the procedure of cavitation that can be reduced in a pump?
A) Cavitation is nothing but bubbles are forming in a liquid.
a) To eliminate the cavitation, we need to increase the size of the pump inches
b) Also, increase the Suction Head pressure or decreasing the Pump speed.

Q) Is Centrifugal Pump works efficiently or Reciprocating pump?
A) Well, Centrifugal Pump works effectively compare to Reciprocating pump, Due to flow rate is high, Maintenance cost low and initial cost low, Smooth flow and it also takes less space while installation.

Q) Is a Centrifugal pump or Reciprocal pump is referred to as a High Discharge pump?
A) To push out the fluid, it uses centrifugal force, Kinetic device is a Centrifugal pump, it receives kinetic energy with the help of a rotating impeller, then liquid enters into the pump.

Q) Explain the Radio flow Turbine?
A) System flows outside from the hilt to the casing process done in Radioflow turbine. Usually unit is a reaction unit that has both the blades fixed and moved.

Q) Explain the types of Turbine Seals?
A) There are four types of Turbine seals, such as:
i) Labyrinth paired with seal strips of shafts or Hilt Serrations.
ii) Carbon rings placed in segments that surround the held and shaft by retainer springs.
iii) To reduce the shaft pitting, we need to use treated water. The shaft runner works as a pump to establish a ring of water that surrounds the shaft.
iv) To reduce the leakage, woven based stuffing boxes should be compressed with a gland.

Q) Explain a steam turbine stage?
A) Stage is around the blades besides the nozzle in an Impulse Turbine. Every row of blades is known as STAGE in a reaction turbine. Three or more moving blades are present in a single Curtis stage.

Q) Do you know about Diaphragm?
A) Diaphragm is known as the separation between pressure stages in a turbine case. In between stages, they carry the nozzles which are vane shaped and seals. Generally, labyrinth-type seals are used more. The initial part of the diaphragm is placed in the casing top, and the remaining half fitted into the bottom part.

Q) How many types of steam turbines are there?
A) There are two types of Steam Turbines such as:
i) Impulse type steam turbine
ii) Reaction type steam turbine

Q) Explain Superposed and Topping turbines?
A) These two turbines are high-pressure and non-condensing units that can be joined to a

previous and medium pressure plant. Topping turbines get high pressure steam from fresh and high pressure boilers. The final steam of the fresh turbine has similar pressure as previous boilers and it is used to provide the previous turbo cavitation.

Q) Explain Radial Bearing and Thrust? and what is the combination between them?
A) At the end of the shell, the end unit has a babbitt bearing which was completely prolonged. Thrust pads of rotor face having collars and the journal handle the thrust collars.

Q) What is meant by Cavitation?
A) Cavitation is the creation of air bubbles or vapor cavities in a liquid.

Q) Explain a positive displacement pump?
A) Positive displacement pumps are functioning by fluid fixed volume from the inlet pressure zone of the pump into the dispense section of the pump.

Q) Define Kinematic Viscosity?
A) The kinematic viscosity means the absolute viscosity ratios to the liquid destiny.

Q) What is the difference between Uniform and Nonuniform flow?
A)
a) **Uniform Flow:** The uniform flow is the process of the flow field of the velocity and also parameters of the hydrodynamics without any changes from edge to edge at any time.
b) **Non-uniform flow:** The non-uniform flow is defined as, velocity and hydrodynamic parameters changes from one endpoint to another point, The flow between one point to another point is known as Non-uniform flow.

Q) Explain the difference between Steady Uniform flow and Non-steady uniform flow?
A)
a) **Steady Uniform flow:** The steady uniform flow means, it doesn't change with time.
b) **Non-steady uniform flow:** The non-steady uniform flow means, the flow changes with time.

Q) Explain Contraction of Coefficient?
A) Coefficient of contraction means the proportion of orifice area to the jet vena contracta area. The 0.64 is considered a typical value for an exact orifice with the concentric flow channel. For more effect of vena contracta, the value should be smaller.

Q) What is the reason behind the Centrifugal pump is not known as a positive displacement type of pump?
A) The centrifugal pump has a different flow based on the head and coming to the positive displacement pump, it has more or low flow which is constant unless of the head or pressure. In the same process, In a positive displacement pump viscosity is constant and Due to the ups and downs values of the Centrifugal pump, the high viscosity liquids fill-up the approval of the pump which causes the efficiency of high volumetric. If there is any change in the supply of viscosity then the system faces more loss. It means, due to pressure changes, the change in pump flow is affected a lot. Centrifugal pump has varying effectiveness rate, whereas Positive displacement pump has less or moderate or more constant effectiveness.

Q) Explain how cavitation occurs in Centrifugal pumps but not in Displacement Pumps?
A) The formation of bubbles is moved by separation of flow, the velocity of non-uniform flow, the inner side of the pump casing. In a centrifugal pump, the flow area of the pipe is larger than the pump impeller eye. This results in a decrease in pump flow area, flow rate increase. The pressure drop functions between impeller vanes and suction of the pumps. Due to the liquid-vapor where impeller temperature increased, this is the reason behind the forming of air bubbles. These cavities or air bubbles are mediated to the pump which is the main reason for cavitation.

Q) Explain the Radial flow turbine?
A) The steam flows outside from the shaft to the casing in a radial flow turbine, The unit is referred to as a reaction unit that has moving and fixed blades.