

- Q)For which of these applications is the turbo shaft engine most suited?--> **Helicopters**
- Q)The function of the turbine in a turbojet engine is to--> **Drive the compressor**
- Q)In an aircraft propeller system, the function of the constant speed unit(CSU) is to--> **Maintain a selected engine speed within the power available**
- Q)The ratio of gas flow rate and the force is--> **Weight flow coefficient**
- Q)The ideal rocket propellant should have the following property--> **reliable smooth ignition**
- Q)Rocket receive their forward propulsion through--> **pushing against the exhaust**
- Q)Mixed exhaust nozzle used in--> **turbofan**
- Q)Greater the difference between jet velocity and aeroplane velocity--> **less the propulsive efficiency**
- Q)The isentropic enthalpy drop in moving blade is two-third of the isentropic enthalpy drop in fixed blades of a turbine. The degree of reaction will be--> **0.56**
- Q)The impulse reaction turbine has its driving force--> **partly as an impulsive force and partly as a reaction force**
- Q)A pump is defined as a device, which converts--> **Mechanical energy to Hydraulic energy**
- Q)The final speed of a rocket depends on--> **all the above**
- Q)Inlet temperature of air entering the turbojet depends on--> **altitude of operation of flight**
- Q)The ratio of the useful heat drop to the isentropic heat drop is called--> **nozzle efficiency**
- Q)Parsons turbine is a--> **simple reaction turbine**
- Q)Parsons reaction turbine is a \_\_\_\_\_ reaction turbine.--> **50 percent**
- Q)The action of steam in a steam turbine is--> **dynamic**
- Q)The ratio of the work done on the blades to the energy supplied to the blades, is called--> **blading efficiency**
- Q)The Parsons reaction turbine has--> **identical fixed and moving blades**
- Q)In an impulse reaction turbine, the pressure drops gradually and continuously over--> **both fixed and moving blades**
- Q)In a reaction turbine--> **the expansion of steam takes place partly in the fixed blades and partly in the moving blades**
- Q)The process of maintaining the speed of the turbine constant for various load conditions, is known as--> **governing**
- Q)The diagram efficiency is the ratio of--> **workdone on the blades to the energy supplied to the blades**
- Q)The ratio of the workdone on the blades per kg of steam to the total energy supplied per stage per kg of steam is called--> **gross or stage efficiency**
- Q)Blading efficiency is also known as--> **diagram efficiency**
- Q)The process of draining steam from the turbine, at certain points during its expansion and using this steam for heating the feed water in feed water heaters and then supplying it to the boiler is known as--> **bleeding**
- Q)For maximum efficiency for single stage reaction turbine, speed ratio-->  **$(\cos \alpha)/2$**
- Q)Stage efficiency is also known as--> **gross efficiency**
- Q)In a reaction turbine when the degree of reaction is zero, then there is--> **no heat drop in moving blades**
- Q)In a reaction turbine when the degree of reaction is one, then there is--> **no heat drop in fixed blades**
- Q)Which is not a surface type condenser--> **counter flow type**
- Q)Maximum efficiency in reaction steam turbine is-->  **$2\cos^2\alpha/(1+\cos^2\alpha)$**
- Q)In a reaction turbine, when steam flows through the moving blades,--> **pressure and velocity both decreases**
- Q)In a reaction turbine, when steam flows through the fixed blades,--> **pressure decreases while velocity increases**
- Q)In jet condenser--> **water and steam mix**

- Q)Which of air pump is removes air along with vapour and also the condensed water from condenser--> **Edwards air pump**
- Q)Condenser efficiency is the ratio of--> **rise in temperature of cooling water/( saturation temperature corresponding to condenser pressure-cooling water inlet temperature)**
- Q)Vacuum efficiency of condenser is the ratio of--> **actual vacuum to maximum obtainable vacuum**
- Q)In which type of condenser have two pumps to remove air and condensate--> **regenerative type**
- Q)Work ratio of the simple gas turbine depends on the--> **all the above**
- Q)Open cycle gas turbine plant works on--> **brayton cycle or atkin cycle**
- Q)The work ratio of the gas turbine plant is defined as the ratio of--> **net work output and work done by turbine**
- Q)A gas turbine works on?--> **Brayton cycle**
- Q)Which of the following is not a component of Brayton cycle?--> **Pump**
- Q)In gas turbines ,high thermal efficiency is obtained in--> **closed cycle**
- Q)If infinite number of heaters are used in a gas turbine ,then expansion process becomes--> **isothermal**
- Q)The thermal efficiency of the gas turbine as compared to the diesel engine--> **less**
- Q)Mechanically efficiency of a gas turbine plant compared to ic engine--> **high**
- Q)The thermal efficiency of the simple open gas turbine plant is improved by the--> **regeneration**
- Q)In a gas turbine power plant ,reheating of gases between the high pressure and low pressure turbine stages will--> **improve turbine output**
- Q)The optimum pressure ratio  $p_i$  for a gas turbine plant operating between the pressure limits  $p_1$   $P_2$  with perfect inter-cooling is given by-->  **$p_i = \sqrt{p_1 p_2}$**
- Q)A gas turbine plant working on joules cycle produces 4000kW of power. If its work ratio is 0.4.power consumed by the compressor is in kW --> **6000**
- Q)Gas turbine using following type of compressor--> **axial**
- Q)The gas in a cooling chamber of a closed cycle gas turbine is cooled at--> **pressure = c**
- Q)The hottest point in a gas turbine is--> **between .33 to .66 of blade height**
- Q)In a four stage compressor ,if the pressure at the first and third stage are 1 bar and 16 bar, then the delivery pressure at the fourth stage will be--> **64 bar**
- Q)The pressure ratio in gas turbines is of the order of:--> **6:1**
- Q)For the same maximum pressure and heat input, the most efficient cycle is?--> **Bravton cycle**
- Q)A closed cycle gas turbine plant consists of--> **all of these**
- Q)High air fuel ratio in gas turbine leads to:--> **reduces exhaust temperature**
- Q)In an aircraft propeller system, the function of the constant speed unit(CSU) is to--> **Maintain a selected engine speed within the power available**
- Q)The ratio of gas flow rate and the force is--> **Weight flow coefficient**
- Q)When a rocket is used as weapon with a warhead as payload, then it is called a--> **missile**
- Q)A rocket engine receives oxygen for combustion of fuel from--> **Oxidizer on board**
- Q)Greater the difference between jet velocity and aeroplane velocity--> **Less the propulsive efficiency**
- Q)Which of the following is the correct sequence of the position of the given components in Turbo-jet--> **diffuser, compressor, turbine, nozzle**
- Q)Define propulsive efficiency--> **thrust power to propulsive power**
- Q)What is function of diffuser--> **Converts kinetic energy into pressure energy**
- Q)Which of the following is the correct sequence of the position of the given components in turbo-prop--> **propeller, compressor, burner, turbine**