

**Subject: Gas turbine engine Part B Theory**

Topics	Level
<b>15.5 Combustion Section</b> Constructional features and principles of operation	2
<b>15.6 Turbine Section</b> Operation and characteristics of different turbine blade types; Blade to disk attachment; Nozzle guide vanes; Causes and effects of turbine blade stress and creep.	2
<b>15.7 Exhaust</b> Constructional features and principles of operation; Convergent, divergent and variable area nozzles; Engine noise reduction; Thrust reversers	2
<b>15.8 Bearings and Seals</b> Constructional features and principles of operation	2
<b>15.9 Lubricants and Fuels</b> Properties and specifications; Fuel additives; Safety precautions.	2
<b>15.10 Lubrication Systems</b> System operation/lay-out and components.	2
<b>15.12 Air Systems</b> Operation of engine air distribution and anti-ice control systems, including internal cooling, sealing and external air services	2
<b>15.14 Engine Indication Systems</b> Exhaust Gas Temperature/Interstage Turbine Temperature; Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems; Oil pressure and temperature; Fuel pressure and flow; Engine speed; Vibration measurement and indication; Torque; Power.	2
<b>15.16 Turbo-prop Engines</b> Gas coupled/free turbine and gear coupled turbines; Reduction gears; Integrated engine and propeller controls; Overspeed safety devices.	2