

6. a) What do you mean by governing of steam turbine? Explain throttle control governing in detail. **8**
- b) Write short note on **8**
- i) Impulse turbine
 - ii) Pressure compounding of steam turbine

7. In a parsons reaction turbine, the angles of receiving tips are 35° and discharging tips 20° . The blade speed is 100 m/s. Calculate the tangential force, power developed, diagram efficiency and axial thrust of turbine, if the steam consumption is 1 kg/min. **16**

OR

8. Discuss and derive expressions for **16**
- a) Blade efficiency
 - b) Stage efficiency
 - c) Axial thrust
 - d) Force and work done on blade.

9. Write short notes on **any two**. **16**
- a) Shell and tube type of surface condenser
 - b) Evaporative condenser
 - c) High level jet condenser

OR

10. a) With neat sketch discuss, natural draft cross flow cooling tower. **8**
- b) Derive the expression to determine cooling water requirement in condenser. **8**
