



2nd Class • Prime Movers

# ***PART B1***

## ***End of Chapter Answer Guide: Numerical Answers***





## CHAPTER 1 - STEAM TURBINE THEORY AND CONSTRUCTION

9. a)  $33^{\circ}53'$   
b) 210.35 m/s
10. a)  $62^{\circ}59'$   
b) 13.22 kW
11. a) 3144.59 kJ/kg  
b) 1239.17 kJ/kg  
c) 39.41%



## CHAPTER 4 - STEAM CONDENSERS

6. 94.35%



## CHAPTER 10 - PIPING

2. a) 30.3 mm  
Since this is between 26.19 mm and 30.94 mm, select the next heavier thickness of 36.53mm. The minimum required wall thickness is 36.53 mm (Schedule 140).
- b) 8.95 MPa



## **CHAPTER 11 - MECHANICAL DRAWING**

2. 2.658 m