

**NETTUR TECHNICAL TRAINING FOUNDATION**  
**DIPLOMA IN MECHATRONICS ENGINEERING & SMART FACTORY – CP15**  
**IV SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JULY 2023**

**Subject: Pneumatics & Hydraulics**

**Total Time: 2 Hr.**

**Subject Code: CP15403T**

**Total Marks: 50**

**PART B**

**1.0 ANSWER ANY EIGHT OF THE FOLLOWING**

**2\*8=16**

- 1.1 What is fluid power and name some of its applications
- 1.2 Define Specific Weight
- 1.3 What is Orifice plate?
- 1.4 What is Operating Pressure?
- 1.5 List few applications of cylinders.
- 1.6 Define Poppet valve and its types
- 1.7 Draw the symbol of Quick exhaust valve
- 1.8 List out the types of Hydraulic motors.
- 1.9 Define Intensifiers.
- 1.10 What are the causes of seal failure?

**2.0 ANSWER ANY SIX OF THE FOLLOWING**

**3\*6=18**

- 2.1 Define Atmospheric pressure, Absolute Pressure and Gauge Pressure
- 2.2 Classify the types of compressors.
- 2.3 Explain shutoff regulation.
- 2.4 List out the characteristics of pneumatic motors
- 2.5 Explain check valve with its construction
- 2.6 How to avoid excessive belt wear?
- 2.7 Define magnetic reed switch with symbol.
- 2.8 Explain one way flow control valve with symbol (Hydraulics)

**3.0 ANSWER ANY FOUR OF THE FOLLOWING**

**4\*4=16**

- 3.1 Explain Positive displacement compressor.
- 3.2 Explain Gear motor with neat sketch.
- 3.3 Draw the signal flow diagram in Electro-pneumatics
- 3.4 Explain Combined Gas laws in detail
- 3.5 Explain the hydraulic intensifier with neat sketch
- 3.6 Explain the function of a solenoid with neat diagram

