

**SSIT POLYTECHNIC, KALAKAD, MAYURBHANJ**  
**4<sup>th</sup> SEMESTER INTERNAL EXAMINATION 2023-2024 (SUMMER)**

**SUB: THERMAL ENGINEERING - II**  
**BRANCH: - MECHANICAL ENGG. / ME I I**

**FULLMARK-20**

**TIME-1 HOUR**

**1. Answer any five Questions.**

**2x5**

- (a) What is volumetric efficiency?
- (b) What is brake thermal efficiency?
- (c) Define swept volume?
- (d) Write about latent heat of vaporization?
- (e) What is boiler mountings and what they are?
- (f) Define dryness of fraction?

**2. Answer any Two Questions.**

**5x2**

- (a) Write the working principle of single stage reciprocating air compressor with neat diagram.
- (b) What are difference feature between a water tube and fire tube boiler?
- (c) Explain with a neat sketch the working of Cochran boiler?