

## **MODULE II**

### **ELECTRICAL INSTALLATION TECHNOLOGY**

**ENG/OS/EI/CR/03/4/MB**

**WIND ELECTRICAL MACHINE**

**SEPTEMBER-NOVEMBER 2025**



## **TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)**

### **PRACTICAL ASSESSMENT**

#### **INSTRUCTIONS TO THE CANDIDATE:**

1. This unit of competence shall be assessed in three phases.
2. Each assessment session has the duration included in brackets
3. The third phase of the assessment shall include a practical session and an oral assessment session.
4. The assessor will take photos and videos as you perform the tasks at critical points during the assessment.
5. Ensure all required resources for the assessment have been provided before beginning the assessment.

## **PRACTICAL ASSESSMENT 1 (3 HOURS)**

### **Elements Covered**

#### **1. Disassemble rotating electrical machine**

### **Tasks**

Disassemble the 3- phase induction motor provided as shown in Figure 1 and record the following winding data:

- Number of coils
- Number of turns per coil
- Wire gauge size
- Coil pitch
- Coil span

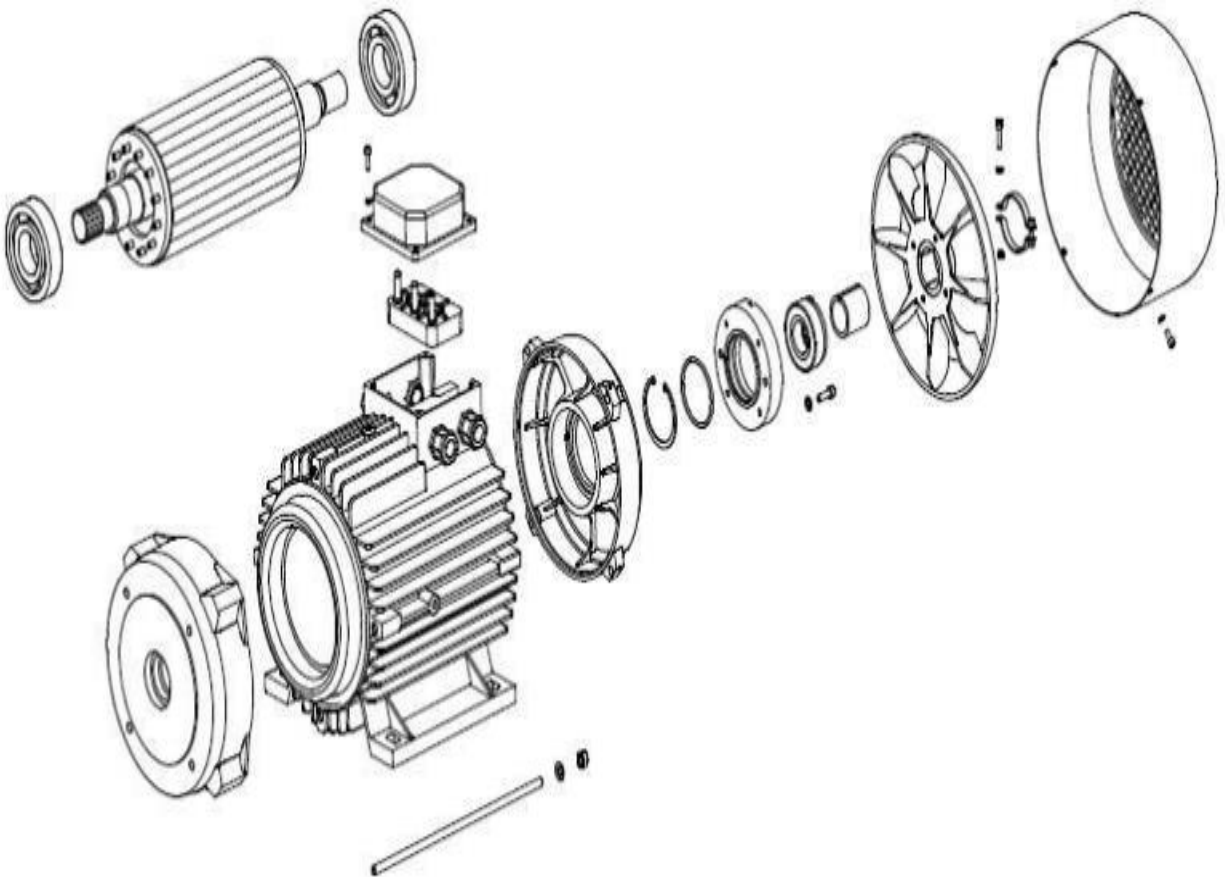


Figure 1

## **PRACTICAL ASSESSMENT 2 (3 HOURS) AND ORAL ASSESSMENT (1 HOUR)**

### **Elements Covered**

#### **2. Install machine winding**

### **TASKS**

- i. Clean all rotating machine parts disassembled
- ii. Wind new coils to the exact specifications recorded (turns, size, and shape).
- iii. Apply slot insulation/liners into the stator slots.
- iv. Lay the new coils into the stator slots as shown in Figure 2.
- v. Cure the stator windings.

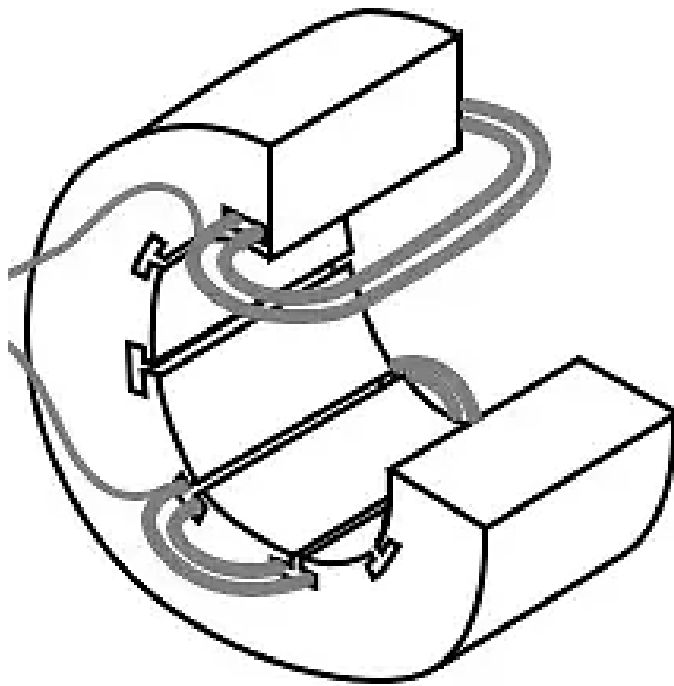


Figure 2

### **PRACTICAL ASSESSMENT 3 (3 HOURS) AND ORAL ASSESSMENT (1 HOUR)**

#### **Elements Covered**

3. Assemble rotating electrical machine
4. Perform electrical machine testing

#### **TASKS**

- i. Reassemble the rotating machine provided as shown in Figure 3.
- ii. Perform the following electrical tests on the reassembled machine:
  - Continuity Test
  - Polarity Test
  - Insulation Resistance (IR) Test
  - Voltage/Current Balance Test
- iii. Carry out final housekeeping.

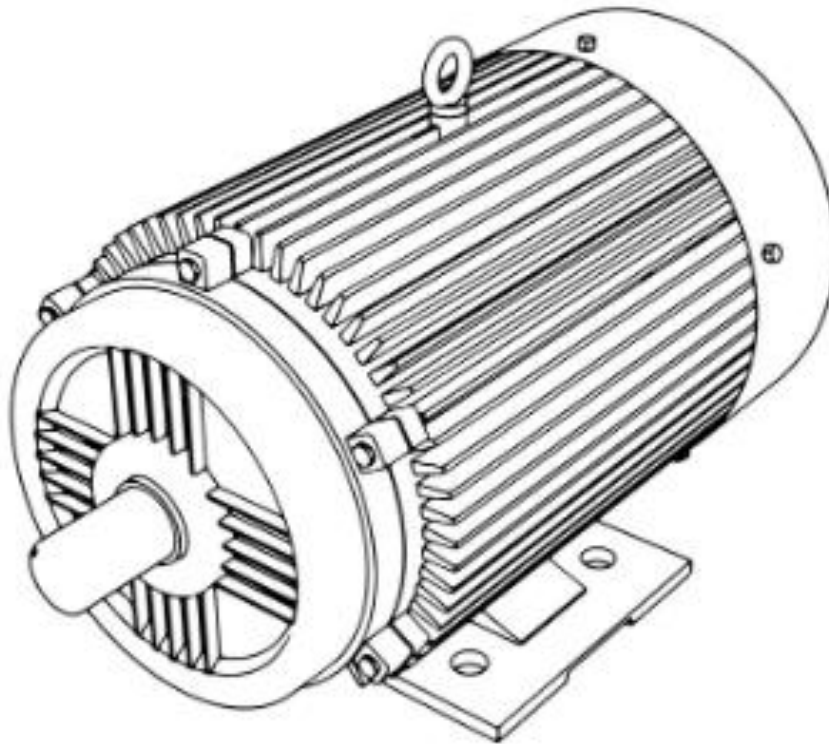


Figure 3

**The assessor will proceed to ask you oral questions for 1 hour.**