



**GOVERNMENT POLYTECHNIC, KORAPUT**  
**DEPARTMENT OF MECHANICAL ENGINEERING.**

Discipline:  
**MECHANICAL  
ENGG.**

Semester:  
**5<sup>TH</sup>**

Name of the Teaching Faculty: Mr. N BikashRao

Subject:  
**RAC LAB.**

No. of  
periods/per  
week class  
allotted: 04

Semester From date: 01/08/23 To Date: 30/11/23

No. of Weeks: 15

**COURSE  
OUTCOMES**

- CO1.** Study the construction features of Domestic Refrigerator, water cooler, Window Air Conditioner, Split Air Conditioner.
- CO2.** Determining the capacity, COP, of Refrigerator Test Rig, Window air Conditioner, Split Air Conditioner, Water cooler.
- CO3.** Evacuating the entire system.
- CO4.** Locating the leakage in refrigerating system.
- CO5.** Charging of the refrigerating system.

| WEEK            | CLASS DAY | THEORY / PRACTICAL TOPIC   |
|-----------------|-----------|--|
| 1 <sup>ST</sup> | 1         | Study the construction features of Domestic Refrigerator.            |
|                 | 2         | Study the construction features of Domestic Refrigerator (Contd...)  |
|                 | 3         | Study the construction features of Domestic Refrigerator (Contd...)  |
|                 | 4         | Study the construction features of Domestic Refrigerator (Contd...)  |
| 2 <sup>ND</sup> | 1         | Study the construction features of Domestic Refrigerator (Contd...)  |
|                 | 2         | Study the construction features of Domestic Refrigerator (Contd...)  |
|                 | 3         | Study the construction features of water cooler.                     |
|                 | 4         | Study the construction features of water cooler (Contd...)           |
| 3 <sup>RD</sup> | 1         | Study the construction features of water cooler (Contd...)           |
|                 | 2         | Study the construction features of water cooler (Contd...)           |
|                 | 3         | Study the construction features of water cooler (Contd...)           |
|                 | 4         | Study the construction features of water cooler (Contd...)           |
| 4 <sup>TH</sup> | 1         | Study the construction features of window air conditioner.           |
|                 | 2         | Study the construction features of window air conditioner (Contd...) |
|                 | 3         | Study the construction features of window air conditioner (Contd...) |
|                 | 4         | Study the construction features of window air conditioner (Contd...) |
| 5 <sup>TH</sup> | 1         | Study the construction features of window air conditioner (Contd...) |
|                 | 2         | Study the construction features of window air conditioner (Contd...) |
|                 | 3         | Study the construction features of split air conditioner.            |
|                 | 4         | Study the construction features of split air conditioner (Contd...)  |
| 6 <sup>TH</sup> | 1         | Study the construction features of split air conditioner (Contd...)  |
|                 | 2         | Study the construction features of split air conditioner (Contd...)  |
|                 | 3         | Study the construction features of split air conditioner (Contd...)  |
|                 | 4         | Study the construction features of split air conditioner (Contd...)  |

|                  |   |   |
|------------------|---|---|
| 7 <sup>TH</sup>  | 1 | Determine the capacity and cop of vapour compression Refrigerator test rig.           |
|                  | 2 | Determine the capacity and cop of vapour compression Refrigerator test rig (Contd...) |
|                  | 3 | Determine the capacity and cop of vapour compression Refrigerator test rig (Contd...) |
|                  | 4 | Determine the capacity and cop of vapour compression Refrigerator test rig (Contd...) |
| 8 <sup>TH</sup>  | 1 | Determine the capacity and cop of vapour compression Refrigerator test rig (Contd...) |
|                  | 2 | Determine the capacity and cop of vapour compression Refrigerator test rig (Contd...) |
|                  | 3 | Determine the capacity and cop of water cooler.                                       |
|                  | 4 | Determine the capacity and cop of water cooler (Contd...)                             |
| 9 <sup>TH</sup>  | 1 | Determine the capacity and cop of water cooler (Contd...)                             |
|                  | 2 | Determine the capacity and cop of water cooler (Contd...)                             |
|                  | 3 | Determine the capacity and cop of water cooler (Contd...)                             |
|                  | 4 | Determine the capacity and cop of water cooler (Contd...)                             |
| 10 <sup>TH</sup> | 1 | Determine the capacity and cop of window air conditioner.                             |
|                  | 2 | Determine the capacity and cop of window air conditioner (Contd...)                   |
|                  | 3 | Determine the capacity and cop of window air conditioner (Contd...)                   |
|                  | 4 | Determine the capacity and cop of window air conditioner (Contd...)                   |
| 11 <sup>TH</sup> | 1 | Determine the capacity and cop of window air conditioner (Contd...)                   |
|                  | 2 | Determine the capacity and cop of window air conditioner (Contd...)                   |
|                  | 3 | Determine the capacity and cop of split air conditioner.                              |
|                  | 4 | Determine the capacity and cop of split air conditioner (Contd...)                    |
| 12 <sup>TH</sup> | 1 | Determine the capacity and cop of split air conditioner (Contd...)                    |
|                  | 2 | Determine the capacity and cop of split air conditioner (Contd...)                    |
|                  | 3 | Determine the capacity and cop of split air conditioner (Contd...)                    |
|                  | 4 | Determine the capacity and cop of split air conditioner (Contd...)                    |
| 13 <sup>TH</sup> | 1 | Determine the capacity and cop of vapour absorption Refrigerator test rig.            |
|                  | 2 | Determine the capacity and cop of vapour absorption Refrigerator test rig (Contd...)  |
|                  | 3 | Determine the capacity and cop of vapour absorption Refrigerator test rig (Contd...)  |
|                  | 4 | Determine the capacity and cop of vapour absorption Refrigerator test rig (Contd...)  |
| 14 <sup>TH</sup> | 1 | Determine the capacity and cop of vapour absorption Refrigerator test rig (Contd...)  |
|                  | 2 | Determine the capacity and cop of vapour absorption Refrigerator test rig (Contd...)  |
|                  | 3 | Complete charging of a domestic refrigerator and its leak test.                       |
|                  | 4 | Complete charging of a domestic refrigerator and its leak test (Contd...)             |



|   |   |
|---|---|
| 1 | Complete charging of a domestic refrigerator and its leak test (Contd...) |
| 2 | Complete charging of a domestic refrigerator and its leak test (Contd...) |
| 3 | Complete charging of a domestic refrigerator and its leak test (Contd...) |
| 4 | Complete charging of a domestic refrigerator and its leak test (Contd...) |

*W. Prakash Rao*  
07/08/23  
Sign. Of Faculty concerned

*M. S. S.*  
01/8/23  
Sign. Of HOD / C.

Principal, KORAPUT