

**GOVERNMENT POLYTECHNIC JAJPUR**

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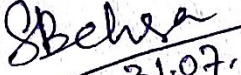
**DEPARTMENT OF MECHANICAL ENGINEERING  
LESSON PLAN**

| Discipline:<br>Mechanical                                   | Semester: 5th  | Name of the Teaching faculty: Suprava Behera                               |
|---|--|--|
| Subject:<br>Refrigeration &<br>Air Conditioning<br>lab(Pr1) | No of<br>Days/Week class<br>alloted: 4                   | Semester from Date: To Date: 01.08.2023 to 30.11.2023<br>No of weeks: 15   |
| Week  | Class Day  | Topics   |
| 1st   | 1st (Gr 1)(2p)   | Study the construction features of Domestic Refrigerator                   |
|   |  | i) Aim of the expt   |
|   |  | ii) Types of refrigerants and Equipment details                            |
|   | 1st (Gr 2)(2p)   | Study the construction features of Domestic Refrigerator                   |
|   |  | i) Aim of the expt   |
|   |  | ii) Types of refrigerants and Equipment details                            |
|   | 1st (Gr 1)(2p)   | Study the construction features of Domestic Refrigerator                   |
|   |  | i) Basic working principle of domestic refrigerator                        |
| 1st (Gr 2)(2p)  | Study the construction features of Domestic Refrigerator |  |
|   | i) Basic working principle of domestic refrigerator      |  |
| 2nd   | 1st (Gr 1)(2p)   | Study the construction features of window air conditioner                  |
|   |  | i) Aim of the expt   |
|   |  | ii) Equipment details  |
|   | 1st (Gr 2)(2p)   | Study the construction features of window air conditioner                  |
|   |  | i) Aim of the expt   |
|   |  | ii) Equipment details  |
|   | 2nd (Gr 1)(2p)   | Study the construction features of split air conditioner                   |
|   |  | i) Aim of the expt   |
|   |  | ii) Equipment details  |
|   | 2nd (Gr 2)(2p)   | Study the construction features of split air conditioner                   |
|   |  | i) Aim of the expt   |
|   |  | ii) Equipment details  |
| 3rd   | 1st (Gr 1)(2p)   | Determine the capacity and cop of vapour compression Refrigerator test rig |
|   |  | i) Aim of the expt   |
|   |  | ii) Equipment details  |
|   |  | iii) Basic Theory  |
|   |  | iv) procedure  |
|   | v) Calculation   |  |
|   | 1st (Gr 2)(2p)   | Determine the capacity and cop of vapour compression Refrigerator test rig |
|   |  | i) Aim of the expt   |
|   |  | ii) Equipment details  |
|   |  | iii) Basic Theory  |
|   |  | iv) procedure  |
|   | v) Calculation   |  |
|   | 2nd (Gr 1)(2p)   | Determine the capacity and cop of water cooler                             |
|   |  | i) Aim of the expt   |
|   |  | ii) Equipment details  |
|   |  | iii) Basic Theory  |
| iv) procedure   |  |  |
| v) Calculation  |  |  |
| 2nd (Gr 2)(2p)  | Determine the capacity and cop of water cooler           |  |
|   | i) Aim of the expt                                       |  |
|   | ii) Equipment details                                    |  |
|   | iii) Basic Theory  |  |
|   | iv) procedure  |  |
| v) Calculation  |  |  |

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| 4th                                  | 1st (Gr 1)(2p)   | Determine the capacity and cop of window air conditioner                  |
|                                      |  | i) Aim of the expt  |
|                                      |  | ii) Equipment details   |
|                                      |  | iii) Basic Theory   |
|                                      |  | iv) procedure   |
|                                      | v) Calculation   |   |
|                                      | 1st (Gr 2)(2p)   | Determine the capacity and cop of window air conditioner                  |
|                                      |  | i) Aim of the expt  |
| ii) Equipment details                |  |   |
| iii) Basic Theory                    |  |   |
| iv) procedure                        |  |   |
| v) Calculation                       |  |   |
| 2nd (Gr 1)(2p)                       | Determine the capacity and cop of split air conditioner        |   |
|                                      | i) Aim of the expt   |   |
|                                      | ii) Equipment details  |   |
|                                      | iii) Basic Theory  |   |
|                                      | iv) procedure  |   |
| v) Calculation                       |  |   |
| 2nd (Gr 2)(2p)                       | Determine the capacity and cop of split air conditioner        |   |
|                                      | i) Aim of the expt   |   |
|                                      | ii) Equipment details  |   |
|                                      | iii) Basic Theory  |   |
|                                      | iv) procedure  |   |
| v) Calculation                       |  |   |
| 5th                                  | 1st (Gr 1)(2p)   | Determine the capacity and cop of vapour absorption Refrigerator test rig |
|                                      |  | i) Aim of the expt  |
|                                      |  | ii) Equipment details   |
|                                      |  | iii) Basic Theory   |
|                                      |  | iv) procedure   |
|                                      | v) Calculation   |   |
|                                      | 1st (Gr 2)(2p)   | Determine the capacity and cop of vapour absorption Refrigerator test rig |
|                                      |  | i) Aim of the expt  |
| ii) Equipment details                |  |   |
| iii) Basic Theory                    |  |   |
| iv) procedure                        |  |   |
| v) Calculation                       |  |   |
| 2nd (Gr 1)(2p)                       | Complete charging of a domestic refrigerator and its leak test |   |
|                                      | i) Aim of the expt   |   |
|                                      | ii) Equipment details  |   |
|                                      | iii) Basic Theory  |   |
|                                      | iv) procedure  |   |
| v)Charging and leak test calculation |  |   |
| 2nd (Gr 2)(2p)                       | Complete charging of a domestic refrigerator and its leak test |   |
|                                      | i) Aim of the expt   |   |
|                                      | ii) Equipment details  |   |
|                                      | iii) Basic Theory  |   |
|                                      | iv) procedure  |   |
| v)Charging and leak test calculation |  |   |
| 6th                                  | 1st (Gr 1)(2p)   | Study the construction features of Domestic Refrigerator                  |
|                                      | i)Practice & VIVA  |   |
|                                      | 1st (Gr 2)(2p)   | Study the construction features of Domestic Refrigerator                  |
|                                      | i)Practice & VIVA  |   |
| 2nd(Gr 1)(2p)                        | Study the construction features of water cooler.               |   |
| i)Practice & VIVA                    |  |   |
| 2nd (Gr 2)(2p)                       | Study the construction features of water cooler.               |   |
| i)Practice & VIVA                    |  |   |

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| 7th  | 1st (Gr 1)(2p) | Study the construction features of window air conditioner<br>i)Practice & VIVA                  |
|      | 1st (Gr 2)(2p) | Study the construction features of window air conditioner<br>i)Practice & VIVA                  |
|      | 2nd (Gr 1)(2p) | Study the construction features of split air conditioner<br>i)Practice & VIVA                   |
|      | 2nd (Gr 2)(2p) | Study the construction features of split air conditioner<br>i)Practice & VIVA                   |
| 8th  | 1st (Gr 1)(2p) | Determine the capacity and cop of vapour compression Refrigerator test rig<br>i)Practice & VIVA |
|      | 1st (Gr 2)(2p) | Determine the capacity and cop of vapour compression Refrigerator test rig<br>i)Practice & VIVA |
|      | 2nd (Gr 1)(2p) | Determine the capacity and cop of water cooler<br>i)Practice & VIVA                             |
|      | 2nd (Gr 2)(2p) | Determine the capacity and cop of water cooler<br>i)Practice & VIVA                             |
| 9th  | 1st (Gr 1)(2p) | Determine the capacity and cop of window air conditioner<br>i)Practice & VIVA                   |
|      | 1st (Gr 2)(2p) | Determine the capacity and cop of window air conditioner<br>i)Practice & VIVA                   |
|      | 2nd (Gr 1)(2p) | Determine the capacity and cop of split air conditioner<br>i)Practice & VIVA                    |
|      | 2nd (Gr 2)(2p) | Determine the capacity and cop of split air conditioner<br>i)Practice & VIVA                    |
| 10th | 1st (Gr 1)(2p) | Determine the capacity and cop of vapour absorption Refrigerator test rig<br>i)Practice & VIVA  |
|      | 1st (Gr 2)(2p) | Determine the capacity and cop of vapour absorption Refrigerator test rig<br>i)Practice & VIVA  |
|      | 2nd (Gr 1)(2p) | Complete charging of a domestic refrigerator and its leak test.<br>i)Practice & VIVA            |
|      | 2nd (Gr 2)(2p) | Complete charging of a domestic refrigerator and its leak test<br>i)Practice & VIVA             |
| 11th | 1st (Gr 1)(2p) | Viva question preparation<br>i)Practice   |
|      | 1st (Gr 2)(2p) | Viva question preparation<br>i)Practice   |
|      | 2nd (Gr 1)(2p) | Complete charging of a domestic refrigerator and its leak test<br>i)Practice & VIVA             |
|      | 2nd (Gr 2)(2p) | Complete charging of a domestic refrigerator and its leak test<br>i)Practice & VIVA             |

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| 12th | 1st (Gr 1)(2p) | Determine the capacity and cop of window air conditioner<br>Viva question preparation & practice |
|      | 1st (Gr 2)(2p) | Determine the capacity and cop of window air conditioner<br>Viva question preparation & practice |
|      | 1st (Gr 1)(2p) | Determine the capacity and cop of window air conditioner<br>Viva question preparation & practice |
|      | 1st (Gr 2)(2p) | Determine the capacity and cop of window air conditioner<br>Viva question preparation & practice |
| 13th | 1st (Gr 1)(2p) | Viva question preparation & practice   |
|      | 1st (Gr 2)(2p) | Viva question preparation & practice   |
|      | 1st (Gr 1)(2p) | Doubt clearing class & practice  |
|      | 1st (Gr 2)(2p) | Doubt clearing class & practice  |
| 14th | 1st (Gr 1)(2p) | Viva question preparation & practice of domestic refrigerator                                    |
|      | 1st (Gr 2)(2p) | Viva question preparation & practice of domestic refrigerator                                    |
|      | 1st (Gr 1)(2p) | Viva question preparation & practice of split AC   |
|      | 1st (Gr 2)(2p) | Viva question preparation & practice of split AC   |
| 15th | 1st (Gr 1)(2p) | Practice of Vapour Absorption test rig   |
|      | 1st (Gr 2)(2p) | Practice of Vapour Absorption test rig   |
|      | 1st (Gr 1)(2p) | Practice of Vapour Compression test rig  |
|      | 1st (Gr 2)(2p) | Practice of Vapour Compression test rig  |

  
31.07.23  
 Signature of Faculty