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| **Discipline** : MECHANICAL ENGG. | **Semester** : 4TH | **Name of The Teaching Faculty :** Er SANJAY KUMAR BISOYI | |
| **Subject** Fluid Mechanics | **No Of Days/Week Class Allotted** 05 | **Semester From** : 16.01.2024 To 26.04.2024 | |
| | | **No. Of Weeks** : 15 | |
| **WEEKS** | **CLASS DAY** | **THEORY** | |
| 16.01.2024 TO 20.01.2024 | 1st | Define fluid | |
| | 2nd | Description of fluid properties like Density, Specific weight, specific gravity | |
| | 3rd | specific volume and solve simple problems. | |
| | 4th | Definitions and Units of Dynamic viscosity, kinematic viscosity, | |
| 22.01.2024 TO 27.01.2024 | 1st | surface tension Capillary phenomenon | |
| | 2nd | **NETAJI SUBASH CHANDRA BOSE JAYANTI** | |
| | 3rd | Solve numerical | |
| | 4th | Definitions and units of fluid pressure | |
| | 5th | **REPUBLIC DAY** | |
| 29.01.2024 TO 03.02.2024 | 1st | pressure intensity and pressure head. | |
| | 2nd | Statement of Pascal's Law. | |
| | 3rd | Concept of atmospheric pressure, gauge pressure, | |
| | 4th | Vacuum pressure and absolute pressure | |
| | 5th | Solve numerical | |
| 05.02.2024 TO 10.02.2024 | 1st | Manometers (Simple and Differential) | |
| | 2nd | Bourdon tube pressure gauge(Simple Numerical) | |
| | 3rd | Solve simple problems on Manometer | |
| | 4th | Revision of chapter | |
| | 5th | Definition of hydrostatic pressure | |
| 12.02.2024TO 17.02.2024 | 1st | Total pressure and centre of pressure on immersed bodies | |
| | 2nd | Solve numerical | |
| | 3rd | **SARASWATI PUJA(VASANTA PANCHAMI)** | |
| | 4th | Solve numerical | |
| | 5th | Archimedes 'principle, concept of buoyancy | |
| 19.02.2024 TO 24.02.2024 | 1st | meta center and meta centric height | |
| | 2nd | Concept of floatation | |
| | 3rd | Revision of chapter | |
| | 4th | Types of fluid flow | |
| | 5th | Continuity equation(Statement and proof for one dimensional flow) | |
| 26.02.2024 TO 02.03.2024 | 1st | Solve numerical | |
| | 2nd | Bernoulli's theorem | |
| | 3rd | Solve numerical | |
| | 4th | Applications and limitations of Bernoulli's theorem | |
| | 5th | Venturimeter, pitot tube | |
| 04.03.2024 TO 09.03.2024 | 1st | Define orifice | |
| | 2nd | **PANCHAYAT RAJ DIVAS** | |
| | 3rd | Flow through orifice | |
| | 4th | Orifices coefficient & the relation between the orifice coefficients | |
| | 5th | **MAHA SIVA RATRI** | |
| 11.03.2024 | 1st | Classifications of notches & weirs | |
| | 2nd | Discharge over a rectangular notch or weir | |

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| TO<br>16.03.2024 | 3rd | Solve numerical | |
| | 4th | Discharge over a triangular notch or weir | |
| | 5th | Solve numerical | |
| 18.03.2024<br>TO<br>23.03.2024 | 1st | Definition of pipe | |
| | 2nd | Loss of energy in pipes. | |
| | 3rd | Head loss due to friction | |
| | 4th | Darcy's and Chezy's formula | |
| | 5th | Solve Problems using Darcy's formula. | |
| 25.03.2024<br>TO<br>30.03.2024 | 1st | **DOLO PURNIMA** | |
| | 2nd | **HOLI** | |
| | 3rd | Solve Problems using Darcy's and Chezy's formula. | |
| | 4th | Revision of the chapter | |
| | 5th | **GOOD FRIDAY** | |
| 01.04.2024<br>TO<br>06.04.2024 | 1st | **UTKAL DIVAS** | |
| | 2nd | Hydraulic gradient and total gradient line | |
| | 3rd | Impact of jet on fixed flat plate | |
| | 4th | moving vertical flat plates | |
| | 5th | Derivation of work done on series of vanes | |
| 08.04.2024<br>TO<br>13.04.2024 | 1st | Condition for maximum efficiency. | |
| | 2nd | Solve numerical | |
| | 3rd | Impact of jet on moving curved vanes | |
| | 4th | **ID UL FITRE** | |
| | 5th | illustration using velocity triangles, | |
| 15.04.2024<br>TO<br>20.04.2024 | 1st | derivation of work done, efficiency | |
| | 2nd | Solve numerical | |
| | 3rd | **RAM NAVAMI** | |
| | 4th | Solve numerical | |
| | 5th | Previous year question discussion 2023 (S) | |
| 22.04.2024<br>TO<br>27.04.2024 | 1st | Revision of chapter 1 | |
| | 2nd | Revision of chapter 2 | |
| | 3rd | Revision of chapter 3 | |
| | 4th | Revision of chapter 4 | |
| | 5th | Revision of chapter 6 | |
| | | CLOSING OF ATTENDANCE | |