| Discipline: **Mechanical Engineering** | | Semester: **4TH** | | Faculty: **RAKESH ROSHAN APATTA SASMITA SAHOO** |
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| Subject: **Manufacturing Technology (TH-2)** | | No of day/week of class allotted: **4 Periods** | | Semester starts from-**14/02/2023 To23/05/2023** |
| **MONTH** | **WEEK** | **AVAILABILITYOF CLASSES** | **CLASS DAY** | **THEORYTOPICSTOBECOVERED** |
| February | 1st | 04 | 15/02/2023 | Briefing about the syllabus.<br>**Chapter1:Introduction**<br>**Tool Materials** |
| | | | 16/02/2023 | **Chapter3: Lathe Machine**<br>Construction and working of lathe and CNC lathe |
| | | | 16/02/2023 | Major components of a lathe and their function |
| | | | 17/02/2023 | Composition of various tool materials |
| | 2nd | 04 | 22/02/2023 | Physical properties& uses of such tool materials. |
| | | | 23/02/2023 | Operations carried out in a lathe |
| | | | 23/02/2023 | Safety measures during machining |
| | | | 24/02/2023 | **Chapter2: Cutting Tools**<br>Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer |
| March | 3rd | 04 | 01/03/2023 | Turning tool geometry and purpose of tool angle |
| | | | 02/03/2023 | **Capstan lathe**, Difference with respect to engine lathe |
| | | | 02/03/2023 | Major components and their function |
| | | | 03/03/2023 | Machining process parameters |
| | 4th | 03 | 09/03/2023 | **Turret Lathe**, Difference with respect to capstan lathe |
| | | | 09/03/2023 | Major components and their function |
| | | | 10/03/2023 | Coolants and lubricants in machining and purpose.<br>Previous year question discussion |
| | 5th | 04 | 15/03/2023 | **Chapter4:Shaper**<br>Potential application areas of a shaper machine |
| | | | 16/03/2023 | Draw the tooling layout for preparation of a hexagonal bolt &bush |
| | | | 16/03/2023 | Draw the tooling layout for preparation of a hexagonal bolt &bush |
| | | | 17/03/2023 | Major components and their function |
| | 6th | 04 | 22/03/2023 | Explain the automatic able feed mechanism |
| | | | 23/03/2023 | **Chapter5:Planning Machine**<br>Application area of a planer and its difference |
| | | | 23/03/2023 | Major components and their functions |
| | | | 24/03/2023 | **Class Test 01** |
| | 7th | 02 | 29/03/2023 | **Q/A discussion** |
| | | | 31/03/2023 | Explain the construction &working of tool head |
| April | 8th | 03 | 05/04/2023 | Explain the quick return mechanism through sketch |
| | | | 06/04/2023 | The table drive mechanism |
| | | | 06/04/2023 | Working of tool and tool support |
| | 9th | 03 | 12/04/2023 | State the specification of a shaping machine. |
| | | | 13/04/2023 | Clamping of work through sketch |

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| | | | 13/04/2023 | **Chapter8: Grinding**<br>Operations &Manufacturing of grinding wheels |
| | 10th | 04 | 19/04/2023 | **Chapter6: Milling Machine**<br>Types of milling machine and its operations |
| | | | 20/04/2023 | Operations &Manufacturing of grinding wheels |
| | | | 20/04/2023 | Criteria for selecting of grinding wheels |
| | | | 21/04/2023 | Types of CNC milling machine and its operations |
| | 11th | 04 | 26/04/2023 | **IA** |
| | | | 27/04/2023 | **IA** |
| | | | 27/04/2023 | **IA** |
| | | | 28/04/2023 | **IA** |
| May | 12th | 03 | 03/05/2023 | Explain work holding attachment |
| | | | 04/05/2023 | IA Q/A Discussion ,Specification of grinding wheels with example |
| | | | 04/05/2023 | Working of Grinder |
| | 13th | 04 | 10/05/2023 | Construction & working of simple dividing head, universal dividing head |
| | | | 11/05/2023 | **Chapter9: Internal Machining operations**<br>Classification of drilling machines, Working of drilling machine. |
| | | | 11/05/2023 | **Boring:** Basic Principle of Boring & Different between Boring and drilling |
| | | | 12/05/2023 | Procedure of simple and compound indexing |
| | 14th | 03 | 17/05/2023 | Illustration of different indexing methods |
| | | | 18/05/2023 | **Chapter10: Surface finish, lapping**<br>Definition of Surface finish |
| | | | 18/05/2023 | Description of lapping& explain their specific cutting. |
| | 15th | 04 | Extra class | **Class test 2** |
| | | | Extra class | **Chapter7:Slotter-**Major components and their function |
| | | | Extra class | Construction and working of slotter machine |
| | | | Extra class | Tools used in slotter |
| | | | Extra class | PYQ Discussion |