


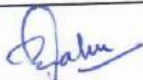
SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

| Discipline: | Semester: | Name of the Teaching Faculty: |
|-------------|-------------------------------------|--|
| Subject: | No of Days/per week class allotted: | Semester from Date: to Date: No of Weeks: |
| Week | Class Day | Theory/Practical Topics |
| 1st | 1st | State function of keys, types of keys & material of keys. |
| | 2nd | Describe failure of key, effect of key way. Design rectangular sunk key considering its failure against shear |
| | 3rd | |
| | 4th | DO |
| | 5th | Design rectangular sunk key by using empirical relation for given diameter of shaft |
| 2nd | 1st | Design of Shaft Coupling |
| | 2nd | Requirements of a good shaft coupling |
| | 3rd | Types of Coupling. |
| | 4th | Design of Sleeve or Muff-Coupling. |
| | 5th | Design of Clamp or Compression Coupling |
| 3rd | 1st | DO |
| | 2nd | DO |
| | 3rd | Solve simple numerical on above. |
| | 4th | Materials used for helical spring. |
| | 5th | DO |
| 4th | 1st | Standard size spring wire. (SWG). |
| | 2nd | DO |
| | 3rd | DO |
| | 4th | Terms used in compression spring |
| | 5th | Stress in helical spring of a circular wire |
| 5th | 1st | Deflection of helical spring of circular wire. |
| | 2nd | Surge in spring. |
| | 3rd | DO |
| | 4th | Solve numerical on design of closed coil helical compression spring. |
| | 5th | DO |


Sign of Faculty


HOD 13/9.


Principal

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

| Discipline: | Semester: | Name of the Teaching Faculty: |
|-------------|-------------------------------------|--|
| Mechanical | 5 th | Ashutosh Sadrahy |
| Subject: | No of Days/per week class allotted: | Semester from Date: to Date: No of Weeks: |
| MD | 24 | 15.9.2022 |
| Week | Class Day | Theory/Practical Topics |
| 1st | 1st | Introduction to Machine Design |
| | 2nd | Classify it. |
| | 3rd | Different mechanical engineering materials used in design with their uses and their mechanical and physical properties |
| | 4th | DO |
| | 5th | Define working stress, yield stress, ultimate stress & factor of safety and stress-strain curve for M.S & C.I. |
| 2nd | 1st | Modes of Failure |
| | 2nd | DO |
| | 3rd | State the factors governing the design of machine elements |
| | 4th | Describe design procedure. |
| | 5th | DO |
| 3rd | 1st | Joints and their classification. |
| | 2nd | State types of welded joints |
| | 3rd | State advantages of welded joints over other joints. |
| | 4th | Design of welded joints for eccentric loads. |
| | 5th | State types of riveted joints and types of rivets. |
| 4th | 1st | Describe failure of riveted joints. |
| | 2nd | Determine strength & efficiency of riveted joints. |
| | 3rd | Design riveted joints for pressure vessel. |
| | 4th | Solve numerical on Welded Joint and Riveted Joints. |
| | 5th | DO |
| 5th | 1st | State function of shafts. State standard size of shaft as per I.S. |
| | 2nd | State function of keys, types of keys & material of keys. State function of shafts. |
| | 3rd | State materials for shafts. |
| | 4th | Design solid & hollow shafts to transmit a given power at given rpm based on |
| | 5th | DO |

AS 12.9.22
Sign of Faculty

SAN
HOD 13/9.

[Signature]
Principal