# R.K INSTITUTE OF ENGINEERING & TECHNOLOGY
## At/Po:Kantapada-Apuja,Niali,Dist-Cuttack,Odisha
## DEPARTMENT OF MECHANICAL ENGINEERING
## -:LESSON PLAN:-

| Discipline:- MECHANICAL | Semester: 4TH | Name of the teaching faculty:- Muktikanta Mohapatra |
|---|---|---|
| Subject. MANUFACTURING TECHNOLOGY | No. Of days / per week class allotted:- 04 | Semester 4th<br>from date: 25/01/21 To Date: 30/04/21<br>No. Of weeks:- 15 |
| Week | Class day | Theory/ Practical Topics : |
| 1ST | 1st | Tool Materials- Composition of various tool materials |
| | 2nd | Physical properties & uses of such tool materials |
| | 3rd | Physical properties & uses of such tool materials |
| | 4th | Cutting Tools - Cutting action of various hand tools such as Chisel, hack saw blade, dies and reamer |
| 2ND | 1st | Cutting action of various hand tools such as dies and reamer |
| | 2nd | Turning tool geometry and purpose of tool angle |
| | 3rd | Machining process parameters (Speed, feed and depth of cut) |
| | 4th | Coolants and lubricants in machining and purpose |
| 3RD | 1st | Lathe Machine - Construction and working of lathe |
| | 2nd | Major components of a lathe and their function |
| | 3rd | Operations carried out in a lathe - Turning, thread cutting , |
| | 4th | taper turning, internal machining, parting off, facing, knurling) |
| 4TH | 1st | Safety measures during machining |
| | 2nd | Capstan lathe |
| | 3rd | Difference with respect to engine lathe |
| | 4th | Major components and their function , Define multiple tool holders |
| 5TH | 1st | Turret Lathe |
| | 2nd | Difference with respect to capstan lathe , |

| | | |
|---|---|---|
| | 3rd | Major components and their function |
| | 4th | Draw the tooling lay out for preparation of a hexagonal bolt & bush |
| 6TH | 1st | Shaper - Potential application areas of a shaper machine |
| | 2nd | Major components and their function |
| | 3rd | Explain the automatic table feed mechanism |
| | 4th | Explain the construction & working of tool head |
| 7TH | 1st | Explain the quick return mechanism through sketch |
| | 2nd | State the specification of a shaping machine |
| | 3rd | Planning Machine |
| | 4th | Application area of a planar and its difference with respect to shaper |
| 8TH | 1st | Major components and their functions |
| | 2nd | The table drive mechanism |
| | 3rd | Working of tool and tool support |
| | 4th | Clamping of work through sketch |
| 9TH | 1st | Milling Machine |
| | 2nd | Types of milling machine and operations performed by them |
| | 3rd | Explain work holding attachment |
| | 4th | Construction & working of simple dividing head, universal dividing head |
| 10TH | 1st | **Internal Assement** |
| | 2nd | Procedure of simple and compound indexing |
| | 3rd | Illustration of different indexing methods |
| | 4th | Slotter Machine |
| 11TH | 1st | Major components and their function |
| | 2nd | Construction and working of slotter machine |
| | 3rd | Tools used in slotter |
| | 4th | Grinding-Significance of grinding operations |
| | 1st | Manufacturing of grinding wheels |

| | | |
|---|---|---|
| 12TH | 2nd | Criteria for selecting of grinding wheels |
| | 3rd | Specification of grinding wheels with example Working ofCylindrical Grinder, Surface Grin , Centre less Grinder |
| | 4th | Internal Machining operations Classification of drillingmachines , Working of - Bench drill machine , Pillardrilling machine , Radial drilling machine |
| 13TH | 1st | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 2nd | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 3rd | Surface finish, lapping - Definition of Surface finish , Define super finishing |
| | 4th | Surface finish, lapping - Definition of Surface finish , Define super finishing |
| 14TH | 1st | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 2nd | Broaching - Types of Broaching (pull type, push type) , Advantages of Broaching and applications |
| | 3rd | Description of lapping & explain their specific cutting |
| | 4th | Description of lapping & explain their specific cutting |
| 15TH | 1st | REVISION |
| | 2nd | REVISION |
| | 3rd | REVISION |
| | 4th | REVISION |

PRINCIPAL
R.K Institute of Engg & Tech
Kantapada,Niali,Cuttack

# R.K INSTITUTE OF ENGINEERING & TECHNOLOGY
## At/Po:Kantapada-Apuja,Niali,Dist-Cuttack,Odisha
## DEPARTMENT OF MECHANICAL ENGINEERING
## -:LESSON PLAN:-

| Discipline:- MECHANICAL | Semester: 4TH | Name of the teaching faculty:- Divya Prakash nath Tiwari |
|---|---|---|
| Subject. MANUFACTURING TECHNOLOGY | No. Of days / per week class allotted:- 04 | Semester 4th from date: 03.02.22 To Date: 30-04-22 No. Of weeks:- 15 |
| Week | Class day | Theory/ Practical Topics : |
| 1ST | 1st | Tool Materials- Composition of various tool materials |
| | 2nd | Physical properties & uses of such tool materials |
| | 3rd | Physical properties & uses of such tool materials |
| | 4th | Cutting Tools - Cutting action of various hand tools such as Chisel, hack saw blade, dies and reamer |
| 2ND | 1st | Cutting action of various hand tools such as dies and reamer |
| | 2nd | Turning tool geometry and purpose of tool angle |
| | 3rd | Machining process parameters (Speed, feed and depth of cut) |
| | 4th | Coolants and lubricants in machining and purpose |
| 3RD | 1st | Lathe Machine - Construction and working of lathe |
| | 2nd | Major components of a lathe and their function |
| | 3rd | Operations carried out in a lathe - Turning, thread cutting , |
| | 4th | taper turning, internal machining, parting off, facing, knurling) |
| TH | 1st | Safety measures during machining |
| | 2nd | Capstan lathe |
| | 3rd | Difference with respect to engine lathe |
| | 4th | Major components and their function , Define multiple tool holders |
| H | 1st | Turret Lathe |
| | 2nd | Difference with respect to capstan lathe , |

| | | |
|---|---|---|
| | 3rd | Major components and their function |
| | 4th | Draw the tooling lay out for preparation of a hexagonal bolt & bush |
| | 1st | Shaper - Potential application areas of a shaper machine |
| 6TH | 2nd | Major components and their function |
| | 3rd | Explain the automatic table feed mechanism |
| | 4th | Explain the construction & working of tool head |
| | 1st | Explain the quick return mechanism through sketch |
| | 2nd | State the specification of a shaping machine |
| 7TH | 3rd | Planning Machine |
| | 4th | Application area of a planar and its difference with respect to shaper |
| | 1st | Major components and their functions |
| 8TH | 2nd | The table drive mechanism |
| | 3rd | Working of tool and tool support |
| | 4th | Clamping of work through sketch |
| | 1st | Milling Machine |
| 9TH | 2nd | Types of milling machine and operations performed by them |
| | 3rd | Explain work holding attachment |
| | 4th | Construction & working of simple dividing head, universal dividing head |
| | 1st | **Internal Assement** |
| 10TH | 2nd | Procedure of simple and compound indexing |
| | 3rd | Illustration of different indexing methods |
| | 4th | Slotter Machine |
| | 1st | Major components and their function |
| 11TH | 2nd | Construction and working of slotter machine |
| | 3rd | Tools used in slotter |
| | 4th | Grinding-Significance of grinding operations |
| | 1st | Manufacturing of grinding wheels |

| | | |
|---|---|---|
| 12TH | 2nd | Criteria for selecting of grinding wheels |
| | 3rd | Specification of grinding wheels with example Working ofCylindrical Grinder, Surface Grin , Centre less Grinder |
| | 4th | Internal Machining operations-Classification of drillingmachines , Working of - Bench drill machine , Pillardrilling machine , Radial drilling machine |
| 13TH | 1st | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 2nd | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 3rd | Surface finish, lapping - Definition of Surface finish , Define super finishing |
| | 4th | Surface finish, lapping - Definition of Surface finish , Define super finishing |
| 14TH | 1st | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 2nd | Broaching - Types of Broaching (pull type, push type) , Advantages of Broaching and applications |
| | 3rd | Description of lapping & explain their specific cutting |
| | 4th | Description of lapping & explain their specific cutting |
| 15TH | 1st | REVISION |
| | 2nd | REVISION |
| | 3rd | REVISION |
| | 4th | REVISION |

PRINCIPAL
R.K Institute of Engg & Tech
Kantapada,Niali,Cuttack

# R.K INSTITUTE OF ENGINEERING & TECHNOLOGY
## At/Po:Kantapada-Apuja,Niali,Dist-Cuttack,Odisha
## DEPARTMENT OF MECHANICAL ENGINEERING
## -:LESSON PLAN:-

| **Discipline:-** **MECHANICAL** | **Semester:** **4TH** | **Name of the teaching faculty:-** Divyaprakash nath Tiwari & Debraj Mishra |
|---|---|---|
| Subject. **MANUFACTURING TECHNOLOGY** | No. Of days / per week class allotted:- 4 | Semester 4th from date: 14.02.23 To Date: 23.05.23 No. Of weeks:- 15 |
| Week | Class day | Theory/ Practical Topics : |
| 1ST | 1st | Tool Materials- Composition of various tool materials |
| | 2nd | Physical properties & uses of such tool materials |
| | 3rd | Physical properties & uses of such tool materials |
| | 4th | Cutting Tools - Cutting action of various hand tools such as Chisel, hack saw blade, dies and reamer |
| 2ND | 1st | Cutting action of various hand tools such as dies and reamer |
| | 2nd | Turning tool geometry and purpose of tool angle |
| | 3rd | Machining process parameters (Speed, feed and depth of cut) |
| | 4th | Coolants and lubricants in machining and purpose |
| 3RD | 1st | Lathe Machine - Construction and working of lathe |
| | 2nd | Major components of a lathe and their function |
| | 3rd | Operations carried out in a lathe - Turning, thread cutting , |
| | 4th | taper turning, internal machining, parting off, facing, knurling) |
| 4TH | 1st | Safety measures during machining |
| | 2nd | Capstan lathe |
| | 3rd | Difference with respect to engine lathe |
| | 4th | Major components and their function , Define multiple tool holders |
| 5TH | 1st | Turret Lathe |
| | 2nd | Difference with respect to capstan lathe , |

| | | |
|---|---|---|
| | 3rd | Major components and their function |
| | 4th | Draw the tooling lay out for preparation of a hexagonal bolt & bush |
| 6TH | 1st | Shaper - Potential application areas of a shaper machine |
| | 2nd | Major components and their function |
| | 3rd | Explain the automatic table feed mechanism |
| | 4th | Explain the construction & working of tool head |
| 7TH | 1st | Explain the quick return mechanism through sketch |
| | 2nd | State the specification of a shaping machine |
| | 3rd | Planning Machine |
| | 4th | Application area of a planar and its difference with respect to shaper |
| 8TH | 1st | Major components and their functions |
| | 2nd | The table drive mechanism |
| | 3rd | Working of tool and tool support |
| | 4th | Clamping of work through sketch |
| 9TH | 1st | Milling Machine |
| | 2nd | Types of milling machine and operations performed by them |
| | 3rd | Explain work holding attachment |
| | 4th | Construction & working of simple dividing head, universal dividing head |
| 10TH | 1st | **Internal Assement** |
| | 2nd | Procedure of simple and compound indexing |
| | 3rd | Illustration of different indexing methods |
| | 4th | Slotter Machine |
| 11TH | 1st | Major components and their function |
| | 2nd | Construction and working of slotter machine |
| | 3rd | Tools used in slotter |
| | 4th | Grinding-Significance of grinding operations |
| | 1st | Manufacturing of grinding wheels |

| | | |
|---|---|---|
| 12TH | 2nd | Criteria for selecting of grinding wheels |
| | 3rd | Specification of grinding wheels with example Working ofCylindrical Grinder, Surface Grinc , Centre less Grinder |
| | 4th | Internal Machining operations-Classification of drillingmachines , Working of - Bench drillir machine , Pillardrilling machine , Radial drilling machine |
| 13TH | 1st | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 2nd | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 3rd | Surface finish, lapping - Definition of Surface finish , Define super finishing |
| | 4th | Surface finish, lapping - Definition of Surface finish , Define super finishing |
| 14TH | 1st | Boring - Basic Principle of Boring , Different between Boring and drilling |
| | 2nd | Broaching - Types of Broaching (pull type, push type) , Advantages of Broaching and applications |
| | 3rd | Description of lapping & explain their specific cutting |
| | 4th | Description of lapping & explain their specific cutting |
| 15TH | 1st | REVISION |
| | 2nd | REVISION |
| | 3rd | REVISION |
| | 4th | REVISION |

**PRINCIPAL**
**R.K Institute of Engg & Tech**
**Kantapada,Niali,Cuttack**

# R.K INSTITUTE OF ENGINEERING & TECHNOLOGY
## At/Po:Kantapada-Apuja,Niali,Dist-Cuttack,Odisha
## DEPARTMENT OF MECHANICAL ENGINEERING
## -:LESSON PLAN:-

| Discipline: MECHANICAL | Semester: 4TH | Name of the teaching faculty: Deba Dutta Samantray | |
|---|---|---|---|
| Subject: TOM | No. Of days / per week class allotted: 04 | Semester from date: 25/01/21 No. Of weeks: 15 | To Date: 30/04/21 |
| Week | Class day | Theory/ Practical Topics : | |
| 1st | 1st | Simple mechanism<br>Link ,kinematic chain, mechanism, machine | |
| | 2nd | Inversion, four bar link mechanism and its inversion | |
| | 3rd | Lower pair and higher pair | |
| | 4th | Lower pair and higher pair | |
| 2nd | 1st | Cam and followers | |
| | 2nd | Cam and followers | |
| | 3rd | Friction between nut and screw for square thread, screw jack | |
| | 4th | Friction between nut and screw for square thread, screw jack | |
| 3rd | 1st | Bearing and its classification, Description of roller, needle roller& ball bearings | |
| | 2nd | Bearing and its classification, Description of roller, needle roller& ball bearings | |
| | 3rd | Torque transmission in flat pivot& conical pivot bearings. | |
| | 4th | Torque transmission in flat pivot& conical pivot bearings. | |
| 4th | 1st | Flat collar bearing of single and multiple types | |
| | 2nd | Torque transmission for single and multiple clutches | |
| | 3rd | Working of simple frictional brakes | |
| | 4th | Working of simple frictional brakes. | |
| | 1st | Working of Absorption type of dynamometer | |

| | | |
|---|---|---|
| | 3rd | Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension. |
| | 4th | Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension. |
| 7TH | 1st | V-belts and V-belts pulleys |
| | 2nd | Concept of crowning of pulleys. |
| | 3rd | Concept of crowning of pulleys. |
| | 4th | Gear drives and its terminology. |
| 8TH | 1st | Gear trains, working principle of simple, compound, reverted and epicyclic gear trains. |
| | 2nd | Function of governor |
| | 3rd | Classification of governor |
| | 4th | Working of Watt, Porter, Proel and Hartnell governors. |
| 9TH | 1st | Working of Watt, Porter, Proel and Hartnell governors. |
| | 2nd | Conceptual explanation of sensitivity, stability and isochronisms. |
| | 3rd | Conceptual explanation of sensitivity, stability and isochronisms. |
| | 4th | Function of flywheel. |
| 10TH | 1st | Function of flywheel. |
| | 2nd | Comparison between flywheel &governor. |
| | 3rd | Fluctuation of energy and coefficient of fluctuation of speed. |
| | 4th | Concept of static and dynamic balancing |
| 11TH | 1st | Concept of static and dynamic balancing |
| | 2nd | Static balancing of rotating parts. |
| | 3rd | Principles of balancing of reciprocating parts. |
| | 4th | Causes and effect of unbalance. |

| | | | |
|---|---|---|---|
| 12TH | 1st | Difference between static and dynamic balancing | |
| | 2nd | Difference between static and dynamic balancing | |
| | 3rd | Revision | |
| | 4th | Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle) | |
| 13TH | 1st | (Amplitude, time period and frequency, cycle) | |
| | 2nd | Amplitude, time period and frequency, cycle) | |
| | 3rd | Classification of vibration. | |
| | 4th | Classification of vibration. | |
| 14TH | 1st | Basic concept of natural, forced & damped vibration | |
| | 2nd | Basic concept of natural, forced & damped vibration | |
| | 3rd | Torsional and Longitudinal vibration. | |
| | 4th | Torsional and Longitudinal vibration. | |
| 15TH | 1st | Causes & remedies of vibration. | |
| | 2nd | Causes & remedies of vibration. | |
| | 3rd | Revision | |
| | 4th | Revision | |

**PRINCIPAL**
**R.K Institute of Engg & Tech**
**Kantapada,Niali,Cuttack**

# R.K INSTITUTE OF ENGINEERING & TECHNOLOGY
At/Po:Kantapada-Apuja,Niali,Dist-Cuttack,Odisha
DEPARTMENT OF MECHANICAL ENGINEERING

## -:LESSON PLAN:-

| Discipline:- MECHANICAL | Semester: 4TH | Name of the teaching faculty:- Debadatta Sammantaray | |
|---|---|---|---|
| Subject. TOM | No. Of days / per week class allotted:- 04 | Semester 4th from date: 03/02/22 To Date: 30/04/22 No. Of weeks:- 15 | |
| Week | Class day | Theory/ Practical Topics : | |
| 1ST | 1st | Simple mechanism<br>Link ,kinematic chain, mechanism, machine | |
| | 2nd | Inversion, four bar link mechanism and its inversion | |
| | 3rd | Lower pair and higher pair | |
| | 4th | Lower pair and higher pair | |
| 2ND | 1st | Cam and followers | |
| | 2nd | Cam and followers | |
| | 3rd | Friction between nut and screw for square thread, screw jack | |
| | 4th | Friction between nut and screw for square thread, screw jack | |
| 3RD | 1st | Bearing and its classification, Description of roller, needle roller& ball bearings | |
| | 2nd | Bearing and its classification, Description of roller, needle roller& ball bearings | |
| | 3rd | Torque transmission in flat pivot& conical pivot bearings. | |
| | 4th | Torque transmission in flat pivot& conical pivot bearings. | |
| 4TH | 1st | Flat collar bearing of single and multiple types | |
| | 2nd | Torque transmission for single and multiple clutches | |
| | 3rd | Working of simple frictional brakes. | |
| | 4th | Working of simple frictional brakes. | |
| | 1st | Working of Absorption type of dynamometer | |

| | | | |
|---|---|---|---|
| | 3rd | Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension. | |
| | 4th | Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension. | |
| 7TH | 1st | V-belts and V-belts pulleys | |
| | 2nd | Concept of crowning of pulleys. | |
| | 3rd | Concept of crowning of pulleys. | |
| | 4th | Gear drives and its terminology. | |
| 8TH | 1st | Gear trains, working principle of simple, compound, reverted and epicyclic gear trains. | |
| | 2nd | Function of governor | |
| | 3rd | Classification of governor | |
| | 4th | Working of Watt, Porter, Proel and Hartnell governors. | |
| 9TH | 1st | Working of Watt, Porter, Proel and Hartnell governors. | |
| | 2nd | Conceptual explanation of sensitivity, stability and isochronisms. | |
| | 3rd | Conceptual explanation of sensitivity, stability and isochronisms. | |
| | 4th | Function of flywheel. | |
| 10TH | 1st | Function of flywheel. | |
| | 2nd | Comparison between flywheel &governor. | |
| | 3rd | Fluctuation of energy and coefficient of fluctuation of speed. | |
| | 4th | Concept of static and dynamic balancing | |
| 11TH | 1st | Concept of static and dynamic balancing | |
| | 2nd | Static balancing of rotating parts. | |
| | 3rd | Principles of balancing of reciprocating parts. | |
| | 4th | Causes and effect of unbalance. | |

| | | | |
|---|---|---|---|
| 12TH | 1st | Difference between static and dynamic balancing | |
| | 2nd | Difference between static and dynamic balancing | |
| | 3rd | Revision | |
| | 4th | Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle) | |
| 13TH | 1st | (Amplitude, time period and frequency, cycle) | |
| | 2nd | Amplitude, time period and frequency, cycle) | |
| | 3rd | Classification of vibration. | |
| | 4th | Classification of vibration. | |
| 14TH | 1st | Basic concept of natural, forced & damped vibration | |
| | 2nd | Basic concept of natural, forced & damped vibration | |
| | 3rd | Torsional and Longitudinal vibration. | |
| | 4th | Torsional and Longitudinal vibration. | |
| 15TH | 1st | Causes & remedies of vibration. | |
| | 2nd | Causes & remedies of vibration. | |
| | 3rd | Revision | |
| | 4th | Revision | |

PRINCIPAL
R.K Institute of Engg & Tech
Kantapada,Niali,Cuttack

# R.K INSTITUTE OF ENGINEERING & TECHNOLOGY
## At/Po:Kantapada-Apuja,Niali,Dist-Cuttack,Odisha
## DEPARTMENT OF MECHANICAL ENGINEERING
## -:LESSON PLAN:-

| Discipline:- MECHANICAL | Semester: 4TH | Name of the teaching faculty:- Debadatta Samantaray & Sudeepta Chattaraj |
|---|---|---|
| Subject. TOM | No. Of days / per week class allotted:- 04 | Semester 4th from date: 14.02.23 To Date: 23.05.23 No. Of weeks:- 15 |
| Week | Class day | Theory/ Practical Topics : |
| 1ST | 1st | Simple mechanism<br>Link ,kinematic chain, mechanism, machine |
| | 2nd | Inversion, four bar link mechanism and its inversion |
| | 3rd | Lower pair and higher pair |
| | 4th | Lower pair and higher pair |
| 2ND | 1st | Cam and followers |
| | 2nd | Cam and followers |
| | 3rd | Friction between nut and screw for square thread, screw jack |
| | 4th | Friction between nut and screw for square thread, screw jack |
| 3RD | 1st | Bearing and its classification, Description of roller, needle roller& ball bearings |
| | 2nd | Bearing and its classification, Description of roller, needle roller& ball bearings |
| | 3rd | Torque transmission in flat pivot& conical pivot bearings. |
| | 4th | Torque transmission in flat pivot& conical pivot bearings. |
| 4TH | 1st | Flat collar bearing of single and multiple types |
| | 2nd | Torque transmission for single and multiple clutches |
| | 3rd | Working of simple frictional brakes |
| | 4th | Working of simple frictional brakes |
| | 1st | Working of Absorption type of dynamometer |

| | | |
|---|---|---|
| | 3rd | Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension. |
| | 4th | Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension. |
| 7TH | 1st | V-belts and V-belts pulleys |
| | 2nd | Concept of crowning of pulleys. |
| | 3rd | Concept of crowning of pulleys. |
| | 4th | Gear drives and its terminology. |
| 8TH | 1st | Gear trains, working principle of simple, compound, reverted and epicyclic gear trains. |
| | 2nd | Function of governor |
| | 3rd | Classification of governor |
| | 4th | Working of Watt, Porter, Proel and Hartnell governors. |
| 9TH | 1st | Working of Watt, Porter, Proel and Hartnell governors. |
| | 2nd | Conceptual explanation of sensitivity, stability and isochronisms. |
| | 3rd | Conceptual explanation of sensitivity, stability and isochronisms. |
| | 4th | Function of flywheel. |
| 10TH | 1st | Function of flywheel. |
| | 2nd | Comparison between flywheel &governor. |
| | 3rd | Fluctuation of energy and coefficient of fluctuation of speed. |
| | 4th | Concept of static and dynamic balancing |
| 11TH | 1st | Concept of static and dynamic balancing |
| | 2nd | Static balancing of rotating parts. |
| | 3rd | Principles of balancing of reciprocating parts. |
| | 4th | Causes and effect of unbalance. |

| | | | |
|---|---|---|---|
| 12TH | 1st | Difference between static and dynamic balancing | |
| | 2nd | Difference between static and dynamic balancing | |
| | 3rd | Revision | |
| | 4th | Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle) | |
| 13TH | 1st | (Amplitude, time period and frequency, cycle) | |
| | 2nd | Amplitude, time period and frequency, cycle) | |
| | 3rd | Classification of vibration. | |
| | 4th | Classification of vibration. | |
| 14TH | 1st | Basic concept of natural, forced & damped vibration | |
| | 2nd | Basic concept of natural, forced & damped vibration | |
| | 3rd | Torsional and Longitudinal vibration. | |
| | 4th | Torsional and Longitudinal vibration. | |
| 15TH | 1st | Causes & remedies of vibration. | |
| | 2nd | Causes & remedies of vibration. | |
| | 3rd | Revision | |
| | 4th | Revision | |

PRINCIPAL
R.K Institute of Engg & Tech
Kantapada,Niali,Cuttack