

## Mechanical Engineering Department

Academic Year – 2020-21	Class: TE DIV. B
Semester – I	Date : 23 /12/2020
Subject: Theory of Machines-II	
CO: CO1,CO4,CO6	PO: PO1

### Innovative Teaching Methods

**Title of Innovation method/activity:** Innovative Teaching Learning Method : Cross word Puzzle activity

1. Name of Faculty: Dr. A. B. Kakade
2. Subject: Theory of Machines-II
3. Objective of Method:
  1. To understand the concept of Gyroscope, gears & Cam and Follower
  2. To evaluate the perception of the students
4. **Topic Covered through Activity:**  
Gyroscope, gears & Cam and Follower

#### 5. Description of method with Benefits (8 – 10 lines):

The crossword puzzle is a teaching tool and an active learning strategy. A crossword is a word puzzle that usually takes the form of a square or a rectangular grid of white and black-shaded squares. The game's goal is to fill the white squares with letters, forming words or phrases, by solving clues, which lead to the answers.

Benefits of method:

- It gives great satisfaction and confidence
- It helps students to get instant feedback.
- It enhances skills like reasoning, problem-solving and developing solutions.
- It helps focus attention and engage students.
- It helps teacher to collect on spot formative assessment.

### The method:

With the help of this method students have shown that word search and other puzzles can help improve memory, focus, vocabulary, and overall mental acuity.

### Roles and Responsibilities

#### Teacher

- Teacher has to prepare questionnaire consist of MCQs.
- Teacher has to explain the method to the students in detail.

#### Student

- Students have to solve the puzzle
- Student need to spell the words correctly.
- The student has to accurately fill in all the blank squares with letters those form words or answer.

### 6. Assessment Tools

Q. No.	Question	Marks
Q1.	The smaller and generally the driving gear of a pair of mated gears is called ----- <b>Pinion</b>	1
Q.2	The radial depth of a tooth below the pitch circle is called ----- <b>Dedendum</b>	1
Q3.	Gyroscopic effect is not observed in which of the following actions performed by the ship ----- <b>Rolling</b>	1
Q. 4.	The ratio of pitch circle diameter and number of teeth is known as ---- <b>module</b>	1
Q5.	The radial height of a tooth above the pitch circle is called ----- <b>Addendum</b>	1
Q6.	The radial difference between the addendum and the dedendum of the tooth is called--- <b>Clearance</b>	1
Q.7	When large gear reductions are needed-----gears are used <b>Worm</b>	2
Q.8	In a gear train, when the axes of the shafts, over which the gears are mounted, move relative to a fixed axis, is called ----- <b>Epicyclic</b>	2
Q.9	Cam size depends upon ----- circle <b>Base</b>	1
Q.10	The front end of the ship is called as ----- <b>Bow</b>	1

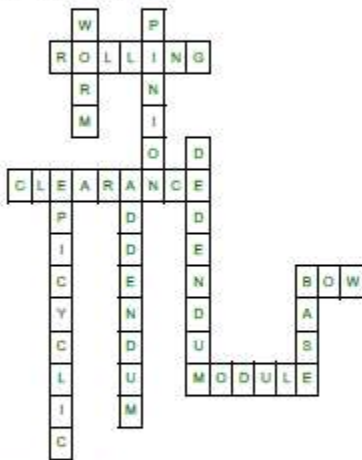
## 7. Evaluation sheet of attendee

Roll No.	Name of the student	Marks
82	Bhushan Namdev More	10
83	More Jagruti Shantilal	10
84	Prathamesh More	10
86	Sanket Dattatray Nakil	09
87	Vedant Ananda Nikam	10
89	Ajinkya Dilip Pagar	10
95	Mayur Patil	10
99	Saurabh Patil	10
103	Vishesh Patil	10
107	Karan Kailas Pund	10
110	Aditya Ranade	10
112	Pratik Raosaheb Rote	10
116	Vivek Ramdas Sangale	10
118	Rishikesh Sawant	10
122	Karan Sandeep Shinde	10
123	Rohit Raju Shinde	10
125	Ujwala Mahesh Shinde	10
126	Shingote Pragati Ramnath	10
131	Abhishek Ramesh Thakare	10
133	Adarsh Sanjay Thakur	10
135	Vinay Thete	10
138	Samyak Mandar Vaidya	10
141	Saurabh Rajendra Warungse	10
143	Akshay Sanjay Zope	10
144	Harshal Sukhdev Mundane	10

## 8. Activity Picture

**Theory of Machines II** 10 / 10  
Jan 4, 2021, 10:28 PM  
19\_AJINKYA PAGAR - TE MECH BDIV

Theory of Machines II 10 / 10 ✓



1. The radial difference between the addendum and the dedendum of the tooth is called—: CLEARANCE ✓
2. In a gear train, when the axes of the shafts, over which the gears are mounted, move relative to a fixed axis, is called —: EPICYCLIC ✓
3. The radial depth of a tooth below the pitch circle is called —: DEDENDUM ✓
4. The radial height of a tooth above the pitch circle is called —: ADDENDUM ✓
5. The smaller and generally the driving gear of a pair of mated gears is called —: PINION ✓
6. Gyroscopic effect is not observed in which of the following actions performed by the ship —: ROLLING ✓
7. The ratio of pitch circle diameter and number of teeth is known as —: MODULE ✓
8. When large gear reductions are needed—gears are used: WORM ✓
9. Cam size depends upon — circle: BASE ✓
10. The front end of the ship is called as —: BOW ✓

9. For review and critique contact: e-mail address of faculty and HOD  
[kakade.amol@kbtcoe.org](mailto:kakade.amol@kbtcoe.org), [hod.mech@kbtcoe.org](mailto:hod.mech@kbtcoe.org)

Dr. A. B. Kakade  
Subject Teacher

Dr. S. P. Mogal  
Module Coordinator

Dr. A. B. Kakade  
NBA Coordinator

Dr. V. C. Shewale  
Head of Department

