



## Mechanical Engineering Department

### Innovative Teaching Method - Report

Academic Year – 2020-21	Class: TE
Semester – II	Date : 08/02/2021
CO: CO1, CO2	PO: PO1, PO2, PO12

**1. Title of Innovation method/activity:** Cross word puzzle

**2. Name of Faculty:** Dr. S.B.Sonawane

**3. Course:** Refrigeration & Air Conditioning (C309)

**4. Objective of Method**

- a. Create the awareness of thermodynamic processes of vapour compression refrigeration cycle
- b. Understand the working of vapour compression refrigeration system (VAS)
- c. Understand the environmental and practical aspects of VAS

**5. Topic Covered through Activity**

Vapour compression refrigeration system

## **6. Description of method with Benefits (8 – 10 lines)**

### **Description of method**

The crossword puzzle is a kind of word game which can help students to extend their vocabulary knowledge. It helps students to memorize terminology, definitions, spelling, and pairing key concepts. A square or a rectangular grid of squares is formed in the crossword puzzle. Crossword puzzle is beneficial as self-correcting method due to the length of each word and the overlap of each answer with other answers. Total 10 questions on vapour compression refrigeration system have been prepared in the present crossword puzzle. It is divided into two sections i.e 5 questions on across section and remaining 5 questions on down section. Responses of students are analyzed and presented in section 9 and 10 respectively.

### **Benefits of method**

- Crossword puzzle provides expansion of vocabulary, stimulate thinking capacity, boost confidence, and fasten up the learning capacity of the students
- It teaches students to memorize terminology, definitions, spelling, and pairing key concepts. From examination point of view it plays an important role for solving multiple choice type questions

## **7. Roles and Responsibilities**

### **• Teacher**

- Develop awareness among the students about working of different components of vapour compression refrigeration system
- Provide the study material on working, analysis and performance evaluation of vapour compression refrigeration system
- Selection of different applications of refrigeration
- Remain available during the completion of task.
- Prepare assessment methodology.



9															

Across	Down
1. Expansion process in VCC	2. Device in which heat rejection take place
3. Pressure and temperature of refrigerant is increased in which device	4. Unit of refrigeration
5. Heat addition process in VCC	6. Method of defrosting
7. In the window air conditioner, the expansion device used is	8. COP is the ratio of refrigerating effect to the ---- work
9. Global warming is caused by	10. Secondary refrigerant used in ice plant

### 9. Evaluation sheet of attendee

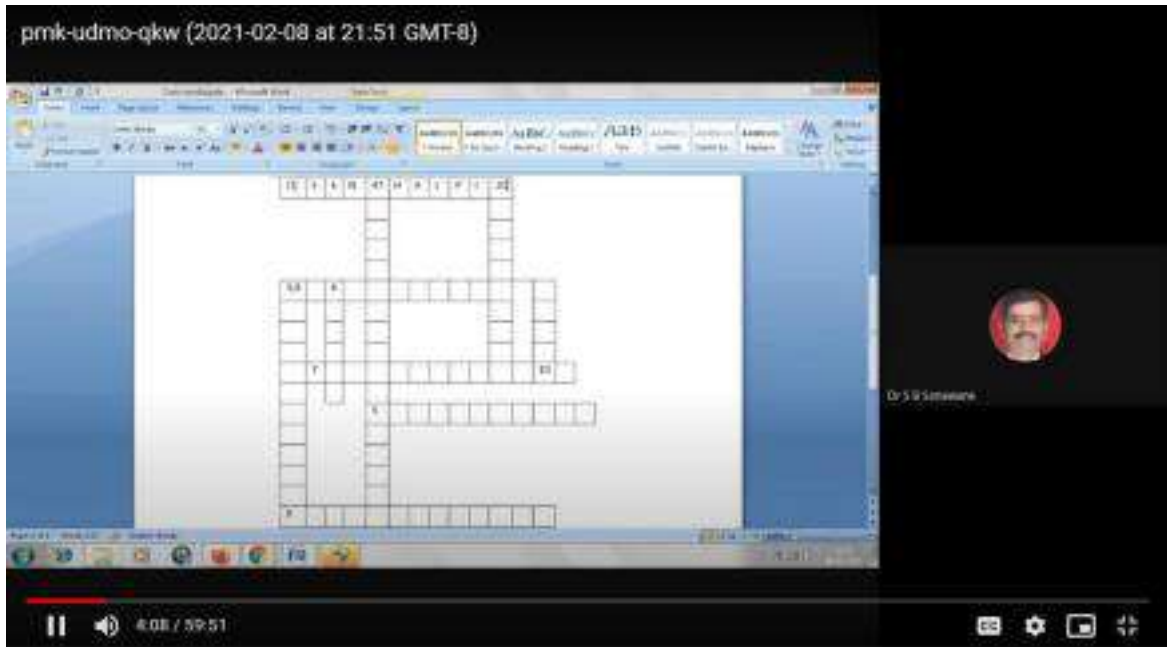
Sr. No.	Roll No.	Name of students	Score out of 10
1	81	Madhura Mogal	10
2	83	Jagruti More	10
3	84	Prathmesh More	10
4	144	Harshal Mundane	9
5	89	Ajinkya Pagar	10

6	100	Shubham Patil	10
7	102	Vaibhavi Patil	10
8	107	Karan Pund	10
9	110	Aditya Ranade	10
10	112	Pratik Rote	8
11	115	Gaurav Sanap	10
12	116	Vivek Sangale	10
13	117	Avinash Savale	10
14	118	Rishikesh Sawant	10
15	123	Rohit Shinde	10
16	125	Ujwala Shinde	9
17	126	Pragati Shingote	10
18	131	Abhishek Thakare	10
19	132	Anjali Thakare	10
20	133	Adarsh Thakur	10
21	135	Vinay Thete	10
22	105	Vaibhav Pawar	9
23	138	Samyak Vaidya	10
24	143	Akshay Zope	10

### 10. Impact Analysis

Sr. No.	3- High/Excellent	2 - Moderate /Average	1- Slight/Poor
1. Did you understand and cover the objective of the activity?	88.9%	11.1%	--
2. Do you find that methodology is helpful in pairing the key concepts of topic?	85.2%	14.8%	--
3. Does this method helps to stimulate your thinking capacity?	85.2%	14.8%	--
4. Does the content covered are relevant and will be helpful as a life long learning?	85.2%	14.8%	--
5. Can you want to conduct such activity again?	85.2%	14.8%	--

### 11. Activity Picture



12. For review and critique contact: e-mail address of faculty and HOD

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Dr. A.B. Kakade Dr. V.C. Shewale NBA Coordinator HoD