

Department of Mechanical Engineering
Innovative Teaching Methods

Activity Title	Quiz
Faculty Name/Department	Mr. Muhammad Irfan A A / Mech
Mapped Course Name & Code	ME8595 Thermal Engineering II
Date	21-09-2022
Benefitted Students (Year / Sem / Dept)	III / V / Mech
Topic	Nozzles
Description	<p>Reading information as a way of learning does have its uses. But reading information and then taking a quiz is much more effective. So, quizzes help to retain information. Quizzes can promote deeper engagement with the content of Nozzles.</p> <p><i>(Rule: No passing Questions)</i></p>
Course Outcomes (CO)	CO 1: Upon the completion of this course the students will be able to solve problems in Steam Nozzle
Performance Indicator (PI)	1.3.1
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Activity Photos	 



Topics/ Questions:

1. According to the number of pressure stages, steam turbines are classified into _____
 - a) single cylinder and multi-cylinder
 - b) single stage and multi-stage
 - c) mono stage and multi-stage
 - d) axial and radial

2. According to the direction of steam flow, steam turbines are classified into _____
 - a) axial and radial
 - b) uniaxial and multi-axial
 - c) upstream and downstream
 - d) forward and backward

3. On the basis of method of governing, steam turbines are classified into turbines with _____
 - a) diffuser governing and nozzle governing
 - b) throttle governing and nozzle governing
 - c) impulse governing and reaction governing
 - d) throttle governing and diffuser governing

4. Which of the following statements about steam nozzles is FALSE?
 - a) It converts the heat energy of the steam into kinetic energy
 - b) It has a varying cross section
 - c) The smallest section is called throat
 - d) The pressure at the outlet is more than at the inlet

5. The steam flow through nozzle is considered to be _____
 - a) adiabatic
 - b) isobaric
 - c) isothermal
 - d) isochoric

6. The maximum mass flow through a steam nozzle is independent of _____
 - a) Initial pressure
 - b) Initial density
 - c) Final pressure
 - d) Throat area

7. A steam nozzle is a passage of varying cross section through which the kinetic energy of steam is converted into heat energy.
 - a) True
 - b) False

8. The smallest section of a steam nozzle is called _____
 - a) maw



- b) neck
- c) throat
- d) muzzle

9. The final velocity obtained after passing the steam through a nozzle is less than the calculated one. Which of the following is NOT a valid reason for the same?

- a) Friction between steam and nozzle surface
- b) Steam not being superheated
- c) Shock losses
- d) Internal friction of steam

10. Presence of friction in a convergent-divergent nozzle, decreases the final velocity of the steam and increases the dryness fraction of the steam.

- a) True
- b) False

Marks:

Group Name (if ITM is a group activity)	Reg No.	Topic	Marks
TEAM I	311820114001, 311820114002 311820114003 311820114004 311820114005 311820114006 311820114007 311820114008	Nozzles	10
TEAM II	311820114009 311820114010 311820114011 311820114012 311820114013 311820114014 311820114015 311820114016	Nozzles	20
TEAM III	311820114017 311820114018 311820114302 311820114303 311820114304 311820114305 311820114306 311820114307	Nozzles	10
TEAM IV	311820114308 311820114309 311820114311 311820114312 311820114313 311820114314 311820114315 311820114316	Nozzles	05



TEAM V	311820114317 311820114318 311820114319 311820114320 311820114321 311820114322 311820114323 311820114701	Nozzles	05
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Outcomes:

A quiz is a quick and informal assessment of student knowledge. Quizzes are often used to briefly test a students' level of comprehension regarding course material, providing teachers with insights into student progress and any existing knowledge gaps of the nozzlebasics. And also improves student's interest on the Internal Assessment Test.