Department of Mechanical Engineering
Innovative Teaching Methods

Activity Title	Quiz
Faculty Name/Department	Mr. Muhammad Irfan A A / Mech
Mapped Course Name & Code	ME8693 & Heat and Mass Transfer
Date	13-04-2023
Benefitted Students (Year / Sem / Dept)	III / IV / Mech
Topic	Radiation
Description	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 Radiation. *(Rule: No passing Questions)*
Course Outcomes (CO)	CO 4: Upon the completion of this course the students will be able to Explain basic laws for Radiation and apply these principles to radiative heat transfer between different types of surfaces to solve problems
Performance Indicator (PI)	1.3.1
Mail ID (for review)	mech.irfan@msajce-edu.in
Activity Photos	

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Topics/ Questions:

1. Which is the fastest mode of heat transfer?
a) Conduction b) Convection c) Radiation d) Both conduction and convection

2. Which law governs the thermal radiation?
a) Fourier's law b) Pascal law c) Newton law d) Stefan-Boltzmann Law

3. Are these statements about the thermal radiation true?
Statement 1: It follows Stefan-Boltzmann Law.
Statement 2: It also depends on Wien's Displacement Law.
a) True, False b) True, True c) False, True d) False, False

4. The emissivity of radiation is between_____
a) 0 and 1 b) 0 and 10 c) 0 and 15 d) 0 and 11

5. In thermal radiation, thermal energy is converted to _____
a) kinetic energy b) potential energy c) electromagnetic energy d) thermal energy

6. What is the wavelength of thermal radiation?
a) 0.1 μm to 1000 μm. b) 1 μm to 100 μm. c) 0.01 μm to 100 μm. d) 0.1 μm to 100 μm

7. Can a good insulator prevent radiation?
a) True b) False

8. What are factors of thermal radiation?
a) Time b) Temperature c) Volume d) Pressure

9. According to _____, the wavelength of the emitted radiation is inversely proportional to its frequency.
a) Fourier's law b) Pascal law c) Newton law d) Plank's law

10. _____ gives the relationship between wavelength and temperature.
a) Fourier'slaw
b)Wein'slaw
c)Newtonlaw
d) Plank's law

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Marks:

Group Name (if ITM is a group activity)	Reg No.	Topic	Marks
TEAM I	311820114001, 311820114002 311820114003 311820114004 311820114005 311820114006 311820114007 311820114008	Radiation	15
TEAM II	311820114009 311820114010 311820114011 311820114012 311820114013 311820114014 311820114015 311820114016	Radiation	10
TEAM III	311820114017 311820114018 311820114302 311820114303 311820114304 311820114305 311820114306 311820114307	Radiation	15
TEAM IV	311820114308 311820114309 311820114311 311820114312 311820114313 311820114314 311820114315 311820114316	Radiation	05
TEAM V	311820114317 311820114318 311820114319 311820114320 311820114321 311820114322 311820114323 311820114701	Radiation	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 student's level of comprehension regarding course material, providing teachers with insights into student progress and any existing knowledge gaps of the Radiation basics. And also improves student's interest in the Internal Assessment Test.