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MECHANICAL ENGINEERING

5 IN 1

THERMODYNAMICS

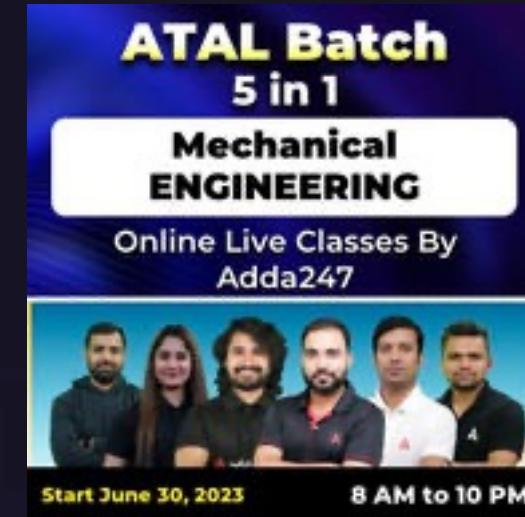
LECTURE -04

LIVE @2:00 PM

Join Atal 5 in1 batch| Use Y201 code max. disc.

Adda247

A smartphone screen displaying a mobile application interface. The top status bar shows the time as 20:17 and battery level at 10%. The main content is a course listing for 'MECHANICAL Engineering MAHA PACK'. It includes a 'Double Validity' badge, a 'SHARE' button, and course details: '500 Seats' and 'Validity: 12+12 Months'. Below this is a large blue box labeled 'BILINGUAL Mechanical Engineering ka Mahapack' which offers 'Live Class, Video Course Test Series, Ebooks'. A dropdown menu is open under 'Validity', showing '12+12 Months' as the selected option. Further down, a green circular icon indicates a 'Y201 Coupon Applied' with a discount of '- Rs 11164.23'. Below this, there's a note about using coins: 'Use Coins: 1449.90'. A large yellow banner at the bottom encourages users to 'Use Y201 For max disc.' The total price shown is ₹ 3189.78, with a note that you saved ₹ 11309.22. A red 'BUY NOW' button is visible at the bottom right.



Use Y201 For max disc.

About Rk Sir

- 1 10 Year Teaching Experience
- 2 GATE Ranker
- 3 B.tech & MTech
- 4 More 1 Lakh student Taught
- 5 Highest selection ratio
- 6 Known for concepts

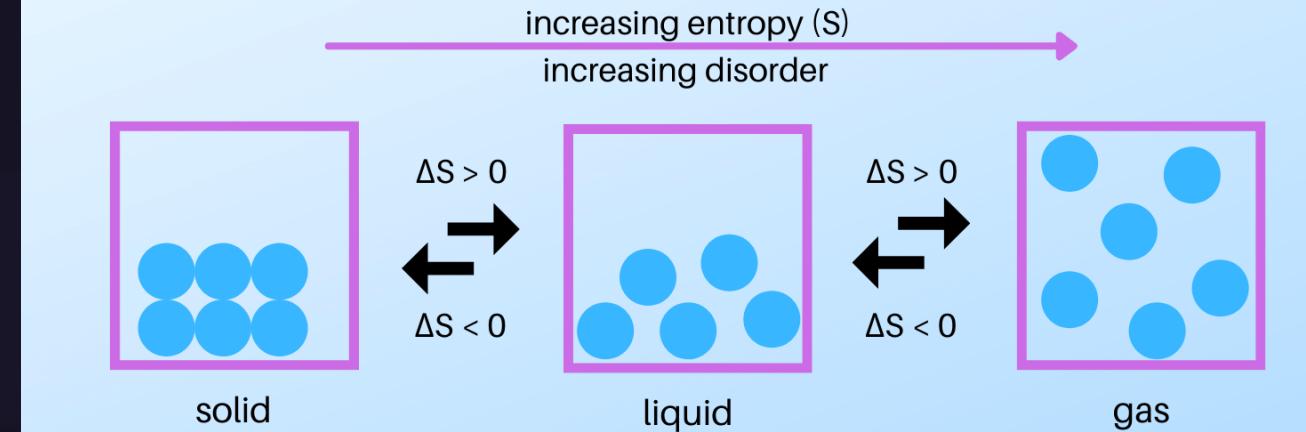


Q Entropy of system depend upon

- (a) Heat
- (b) work
- (c) temp
- (d) pressure

What Is Entropy?

Entropy is a measure of the disorder of a system or energy unavailable to do work.



Q Entropy of reversible process for system will be

- (a) Increase
- (b) decrease
- (c) constant
- (d) All of the above

Q Unit of entropy

- (a) Joule/k
- (b) Joule/kg
- (c) Joule/ meter
- (d) None

Q Area under the TS Diagram for cycle indicate

- (a) Work
- (b) heat
- (c) Both a & b
- (d) None

Q - Entropy of adiabatic process will be

- (a) Increase
- (b) constant
- (c) Can never decrease
- (d) None

Q Entropy of heat engine during heat rejection when it is operating under temp limit of 300k and 1000k . Rate of heat supply is 100Kj/s

- (a) 0.233kW/K
- (b) 0.70kw/k
- (c) 0.30Kw/k
- (d) None

Q Entropy of universe in reversible process will be

- (a) Increase
- (b) constant
- (c) decrease
- (d) None

Q Irresistibility of system will be when difference of reversible and irreversible work is 50kj and surrounding temp is 300k

- (a) 1500KJK
- (b) 2000KJK
- (c) 1000KJK
- (d) None

Q Max amount of work that can be obtained by reversible heat engine when heat rejection take place to surrounding temp

- (a) Available energy
- (b) Unavailable energy
- (c) Irreversibility
- (d) None

Q Which of the following is the correct criteria for a spontaneous process?

- (a) $\Delta S_{\text{System}} - \Delta S_{\text{Surroundings}} > 0$
- (b) $\Delta S_{\text{Surroundings}} > 0$ only
- (c) $\Delta S_{\text{System}} + \Delta S_{\text{Surroundings}} > 0$
- (d) $\Delta S_{\text{System}} > 0$ only

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Q Entropy generation is

- (a) Always positive
- (b) Always negative
- (c) associated with irreversible process
- (d) Both a & c