

1: M.E THERMAL ENGINEERING SYLLABUS FOR REGULATION ~ Anna University Plus Blog

te environmental engineering and pollution control syllabus | anna university me thermal engineering 2nd semester syllabus regulation below is the anna university m.e thermal engineering department 2nd semester syllabus, textbooks, reference books, exam portions, question bank, previous year question papers, model question.

Mention the assumptions made on the air standard cycle analysis. In an Otto cycle, pressure ratio during compression is Calculate the air standard efficiency. Enumerate the factors which shall be considered while selecting a boiler? What is steam trap? What is the effect of compression ratio on efficiency of Otto cycle? In What respects the working processes in an actual engine differ from a theoretical cycle. What are quality governed engines? What are the differences between actual and ideal cycle? Explain the term Knocking. What is meant by lean and rich mixture? Mention the ranges of compression ratio for SI and CI engines. What is relative efficiency? For a given compression ratio the Otto cycle is more efficient than Diesel cycle. What is an air standard efficiency? Define a Compression ratio β cut off ratio. Define the terms actual thermal efficiency and relative efficiency. What is an air-standard cycle? Why such cycles are conceived? Assuming that the compression follows the law pV^γ . A gas engine working on the Otto cycle has a cylinder of diameter 0. The clearance volume is cc. Find the air standard efficiency. In an engine working on the diesel cycle the ratios of the weights of air and fuel supplied is The temperature of air at the beginning of the compression is K and the compression ratio used is Derive an expression for the air standard efficiency and MEP of a Diesel cycle. The compression ratio of an air standard Dual cycle is 12 and the maximum pressure in the cycle is limited to 70bar. The pressure and temperature of the cycle at the beginning of compression process are 1bar and K. Calculate the thermal efficiency and mean effective pressure. An engine with mm cylinder diameter and mm stroke works on theoretical Diesel cycle. The initial pressure and temperature of air used are 1bar and C. Pressure and temperature at all salient points. Theoretical air standard efficiency. Power of the engine if the working cycles per minute are Assume that compression ratio is 15 and working fluid is air. Consider all conditions to be ideal. Air enters the compressor of a gas turbine plant operating on Brayton cycle at The pressure ratio in the cycle is 6. Calculate the maximum temperature in the cycle and cycle efficiency. An engine working on Otto-cycle in which the salient points are 1, 2, 3 and 4 has upper and lower temperature limits T_3 and T_1 . A diesel engine has a compression ratio of 14 to 1 and fuel is cut off at 0. Show that the efficiency of the Otto cycle is greater than diesel cycle for the same compression ratio. Initially the air is at C and 1bar. The compression ratio is 15 and the heat added is KJ. Calculate the ideal cycle efficiency and the mean effective pressure. Compare the actual and ideal PV diagram of a four and two stroke engine. The following data were given for an oil engine working with Otto cycle.

2: Thermal Engineering | Government College Of Technology

Recent Question Paper is your Engineering, arts, banking, public exam question bank website. We provide you with the latest question paper with huge collections of engineering and public questions.

To detail on the importance of Total Energy Concept, its advantages and cost effectiveness. To enhance the knowledge of the students about various measuring instruments, techniques and importance of error and uncertainty analysis. I To provide knowledge on various measuring instruments. II To provide knowledge on advance measurement techniques. III To understand the various steps involved in error analysis and uncertainty analysis. To create awareness among the student community on anthropogenic degradation of environment and technologies available to limit the degradation. Manual of Environmental Technology in Developing Countries,. Arcadio P Sincero and G. The course is intended to build up necessary background for the design of the various types of heat exchangers. To learn the working principle, operations and analysis of gas turbine power plant cycle, components selection or matching. Types of inward flow radial IFR turbine " velocity triangles " thermodynamics of the IFR turbine " optimum design solution of IFR turbines " stage losses " performance characteristics. To gain insight on the working principle of rocket engines, different feed systems, propellants and their properties and dynamics of rockets. Hill and Carl R. Aircraft and Missile Propulsion, Vol. Taylor, C and Hughes, J. To gain insight about fuel cells, their working principle, types of fuel cells and performance analysis. Engine " Direct and indirect injection systems " Combustion chambers " Fuel spray behaviour " spray structure, spray penetration and evaporation " air motion " Introduction to Turbo charging. Sharma, Internal combustion Engines. To instil the working principles, performance and applications of Turbomachines in the minds of the students. Various types of subsonic and supersonic inlets. Basics of Fanno and Rayleigh flow. Basics of normal and oblique shock waves. Use of gas tables. Energy transfer between fluid and rotor velocity triangles for a generalized turbomachine - methods of representing velocity diagrams - Euler turbine equation and its different forms - degree of reaction in turbo-machines " various efficiencies " isentropic, mechanical, thermal, polytropic etc. Axial flow compressor " geometry and working " velocity diagrams " ideal and actual work " stage pressure ratio - free vortex theory " performance curves. Swirl for stability - cooling of combustion chamber. Working principles of Turbojet, Turbofan, Turboprop, Ramjet, Scarmjet and Pulsejet Engines and cycle analysis " thrust, specific impulse, sfc, thermal and propulsive efficiencies. R and Dubey S. Inversion Curve - Joule Thomson Effect. Adsorption Systems for purification. Cryocoolers, Stirling Cycle Refrigerators, G. Timmerhaus and Thomas M. Herald Weinstock, Cryogenic Technology, Semi hermetic compressors - Construction, working and Energy Efficiency aspects. Applications of each type. Different Defrosting and capacity control methods and their implications - Testing of Air conditioners, Refrigerators, Visicoolers, Cold rooms, Calorimetric tests. Theoretical characteristic curves, Eulers characteristics and Eulers velocity triangles, losses and hydraulic efficiency, flow through impeller inlet volute, diffusers, leakage disc friction mechanical losses multivane impellers of impulse type, crossflow fans. Brunoeck, Fans, Pergamon Press, Church, Centrifugal pumps and blowers, John Wiley and Sons, Dixon, Worked examples in turbomachinery, Pergamon Press, To provide in-depth knowledge on Nuclear reaction materials reprocessing techniques and also to understand nuclear waste disposal techniques and radiation protection aspects. Multistage industrial applications, cylinder arrangement, cooling methods - oil injection and refrigeration injection, capacity regulations - Economizers. Mechanical pumping and gas pumping - advantage and disadvantage of liquid re-circulation - circulation ratio - top feed and bottom feed refrigerant - Net Positive Suction Head NPSH - two pumping vessel system - suction risers " design - piping loses. Different Industrial Condensers arrangement, Evaporators-Types and arrangement, liquid circulation, type of feed, refrigerant piping design , functional aspects. High pressure receiver - flash tank - liquid and vapour separator - separation enhancers - low pressure receivers - surge drum - surge line accumulator - thermosyphon receiver - oil pots. To teach the students about Refrigeration System Design concepts. Jordan and Priester , Refrigeration and Air conditioning Langley , Billy C. To visualize fluid in an IC engine, aspects of heat transfer and cooling of components.

Panton, Incompressible flow, 3rd Edition, Wiley, To understand the theory of turbulent flow and its modeling, structure types and a detailed insight about turbulence. To provide review and use knowledge from thermodynamics, heat transfer and fluid mechanics, modeling and stimulation techniques for thermal system component analysis and their synthesis in integral engineering systems and processes OBJECTIVES: Moran , Thermal Design and Optimization , Wiley , To introduce the types, characterization and properties of fuel, Also to discuss the principles of combustion with emphasis on engineering applications. Types and general characteristics of fuels " proximate and ultimate analysis of fuels. Peat " coal " biomass " wood waste " agro fuels " refuse derived solid fuel " testing of solid fuels. Bulk and apparent density " storage " washability " coking and caking coals. Refining " molecular structure " liquid fuel types and their characteristics " fuel quality. Liquefaction of solid fuels. First law combustion calculations " adiabatic flame temperature analytical and graphical methods " simple second law analysis. Elementary reactions " chain reactions " pre-ignition kinetics " global reactions " kinetics " reaction at solid surface. Fixed bed combustion - suspension burning - fluidized bed combustion. Energy balance and furnace efficiency " gas burner types - pulse combustion furnace. Premixed charge engine combustion. Detonation of gaseous mixtures. Annamalai, K and Puri, I. I and Vora, S. Energy Resources Availability in India. Energy conservation potential in various Industries and commercial establishments. Energy intensive industries " an overview. Energy conservation and energy efficiency " needs and advantages. Energy auditing " types, methodologies, barriers. Role of energy manager " Energy audit questionnaire " energy Conservation Act Measurement of flow, velocity, pressure, temperature, speed, Lux, power and humidity. Analysis of stack, water quality, power and fuel quality. To introduce the advances in operations and applications of different types of power plants. Superheaters, reheaters " condenser and feed water heaters " operation and performance " layouts. Gas turbine cycles " optimization " thermodynamic analysis of cycles " cycle improvements " multi spool arrangement. Intercoolers, reheaters, regenerators " operation and performance " layouts. Economics of power plants. To understand the types, working of steam generator and their major components, along with design principles and calculations. Fuel stoichiometry calculations " enthalpy calculation of air and combustion products " heat balance. Fluidized bed boilers " major features of fluidized bed boilers " basic design principles. Temperature control in superheaters and reheaters. Design and Theory, Springer To inspire the students with the theories of fluidization, heat transfer and design for various applications. Fluidization phenomena " regimes of fluidization " bed pressure drop curve. Two phase and well-mixed theory of fluidization. Particle entrainment and elutriation " unique features of circulating fluidized beds. Methods for improvement " external heat exchangers " heat transfer and part load operations. Cracking and reforming of hydrocarbons, carbonization, combustion and gasification. Sulphur retention and oxides of nitrogen emission Control. Kunii, D and Levespiel, O. Ed , Fluidized Beds: Fundamentals of Fluidized bed Chemical Processes, Butterworths, Ibrahim Dincer and Mark A.

3: M.E THERMAL ENGINEERING SYLLABUS FOR REGULATION ~ Anna University Plus Blog

Download the Anna university curriculum and syllabus for all the course in ME/www.enganchecubano.com, MBA and MCA branches which are provided to the affiliated college under Anna University, Chennai, Coimbatore, Tiruchirapalli / Trichy, Tirunelveli.

4: MECH | Government College Of Technology

B.E. (MECHANICAL ENGINEERING) THIRD TO EIGHTH SEMESTER SYLLABUS (For the students admitted from and subsequently) COIMBATORE INSTITUTE OF TECHNOLOGY.

5: Anna Universty Syllabus for ME/www.enganchecubano.com - Regulation | Knowledge Adda

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87th Senate approved Courses Scheme & Syllabus for M.E. Thermal Engg. () COURSES SCHEME & SYLLABUS FOR M.E. THERMAL ENGINEERING THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY (Deemed to be University).

6: Thermal Engineering | Government College Of Technology

The comprehension assessment will consist of 3 to 5 tests in each Thermal Engineering, Design and Manufacturing Streams covering all the subjects of study in the respective streams under B.E. Mechanical Engineering Course.

7: ME Thermal Engineering Laboratory – I Lab Manual Download- Mech 4th Sem Anna University

ME Thermal Engineering Syllabus 1st 2nd 3rd 4th 5th 6th 7th 8th Semester Syllabus Regulation - Anna University Thermal Engineering Syllabus Regulation Anna University Chennai - Anna University Thermal Engineering (TE) Syllabus Regulation Chennai for all Semester.

8: CUSAT previous question Paper 4th sem Thermal Engineering April

ME THERMAL ENGINEERING: Syllabus (Regulation) – 2-Marks Question with Answer – University question paper May/June

9: ME Thermal Engineering Laboratory – I Lab Manual Download- Mech 4th Sem Anna University

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Building Microsoft Access Applications (Bpg Other) The lyf of our lady] The Nuclear Apocalypse On some peculiarities of French political thought Schools, courts, and the law The Works of Charles and Mary Lamb Volume 2 (Large Print Edition) Diary of Petr Ginz 1941-1942 The black count tom reiss Canadian Women Invent! Devil is a part timer volume 1 english Kele moon starfish and coffee Evolutionary journey Vampire counts 8th edition scribd Doctrinal principles of the family Day in the life of Hollywood God Is Beautiful and He Loves Beauty The Humiliation Of Sinners Creating wellness through collaborative mental health interventions Shama B. Chaiken, Catherine Prudhomme Relations with the Middle East Villages on the Golden Horn Nitro editor for windows 7 Cameron Jamie. Exhibition Graz, from October 10 to November 24, 2004 Security assistance Andrew K. Semmel Android eclipse tutorial step by step Respect the religious beliefs of others Educational research by burke johnson and larry christensen Pilots Handbook of Aeronautical Knowledge AC 61 23B (U.S. Dept. of Transportation, Federal Aviation Admin 4. These Middle Beings are the Angels or Demons The colonizing nations Annexinopathy in the antiphospholipid syndrome Jacob H. Rand and Xiao-Xuan Wu Mba in a book Performing Shakespeare Mexico (Worlds Political Hot Spots) The WTO and Global Convergence in Telecommunications and Audio-Visual Services Teaching writing to visual, auditory, and kinesthetic learners Surgery of the aortic valve Tirone E. David San Franciscos wildflower Democracia emancipatoria Create contact sheets Creating a payment strategy