

Shantilal Shah Engineering College Bhavnagar
Mechanical Engineering Department
Sub Name: Heat Transfer Sub Code: 3151909

Academic Year: 2021-22 (Odd Semester)

Syllabus for Progressive Assessment Test

Topic No.	Content	Weightage %	Contribution to Course Outcome
1.	Conduction: Fourier's law, effect of temperature on thermal conductivity of different solids, liquids and gases, generalized equation in Cartesian, cylindrical and spherical coordinates and its reduction to specific cases, One dimensional steady state conduction	33.33	CO-1
2.	Convection: Newton's law of cooling, dimensional analysis applied to forced and free convection, dimensionless numbers and their physical significance. thermal and hydrodynamic boundary layer	23.33	CO-2
3.	Radiation: Absorptivity, reflectivity and transmissivity, black, white and grey body, emissive power, emissivity, Kirchhoff's law, Planck's law, Rayleigh-Jeans' law, Wien's law, Wien's displacement law, Stefan-Boltzmann law,	23.33	CO-3
4.	Heat Exchangers: Classification, heat exchanger analysis, LMTD for parallel and counter flow exchanger, condenser and evaporator, overall heat transfer coefficient, fouling factor, correction factors for multi pass arrangement	20	CO-4

Questions Types: Multiple Choice Questions, Multi Choice Questions, Fill in the Blanks etc.



Subject Coordinator

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