

SYLLABUS FOR TAMILNADU COMMON ENTRANCE TEST (TANCET)

PART – III

8. ARCHITECTURE

Building Materials, Construction and Technology : Lime, Brick, Stone, Clay products; Timber, Industrial timber; Paints and varnishes, Concrete, Special concrete and light weight concrete; Ferrous metals; non ferrous metals; Glass; Plastics; Eco friendly materials; Thermal insulation materials and acoustic materials. Construction techniques and practices using the above listed materials; Damp and water proofing; Pest control;; Construction systems and equipment; Pre-stressed concrete and Tensile Structures; Grids domes; folded plates; Flat Slabs. Low cost construction & appropriate technologies.

History of Architecture : Indian architecture- Hindu and Islamic; Indo Saracenic; Secular architecture of the princely states; Colonial and Post Independence Architecture; Works of masters such as Charles Correa; B V Doshi; Ananth Raje; Raj Rewal; Laurie Baker; Nari Gandhi; Kanvinde. Western architecture- Ancient Greek and Rome; Early Christian; Gothic and Renaissance; Baroque; Neo Classicism; Chicago School and development of skyscraper; Modern architecture: Art and Crafts; Art Nouveau; Expressionism and Cubism; Bauhaus; International style; Post Modernism and De constructivism; Critical Regionalism; Theories and projects of F L Wright; Le Corbusier; Gaudi; Gropius; Aalto; Mies; Eisenmann; Zaha Hadid; Soleri; Hasan Fathy; Ando; Bawa; Gehry; Libeskind; Toyo Ito; Louis Khan; Tschumi; Greg Lynn; Assymptote.

Theory and principles of Architecture: Elements and ordering principles; Organisation of form and space; Design methodology and Creative thinking; Pattern language; Contemporary process: Diagrams, Shape grammar, fractals, Digital hybrid, Liquid architecture.

Building Services: Water supply and distribution systems; water and waste management; Sewerage system; Electrical systems; Illumination and lighting; Air conditioning; Fire Safety; building automation and IBMS.

Building Science : Climate responsive architecture; design of solar shading devices; acoustics & building design; Architecture & Energy- Active & passive solar architecture, Day lighting & natural ventilation, Landscape designs; Landscape & environment control.

Housing; Urban Design and Town Planning : National Housing Policy; Indra Awas Yogana; Housing standards; housing projects in India; Urban morphology of early and contemporary cities; Case Studies on urban revitalization from developed and developed economies; Planning concepts- Patrick Geddes, Ebenezer Howard, Le Corbusier, C A Perry; Urban planning, regional planning and Urban renewal in the Indian context.