विषय- पाठ्यक्रम आयसी (ON LINE) 2020 का **Syllabus**

Sr. No	Module	Syllabus
1	Coaching	Train lighting (TL) System, General Scheme for power generation & Distribution, ERRU &RRU, Maintenance of TL system, Failure analysis of TL coaches, Air -conditioning of LHB Coaches, RMPU, Pantry car, Power car, preventive maint. Schedule of LHB Coaches, Comparison of TLAC & LHB Coaches, ICMS, EOG & HOG schemes.
2	TRS	Shed organization and lay out, types of locos and technical parameters/ comparison of locos, power, auxiliary & pneumatic circuits & components of conv. 3p-ph locos (GTO & IGBT) , Bogie & TM , maintenance schedule, failures and various modification, New trend in 3- phase locos, Push pull operation , DPCWS, RTIS,SLAM.
3	TRD	Overview of OHE/PSI , Foundation & Mast, OHE Sectioning & ATD, Bonding & Earthing , turn out, cross over, maintenance schedule, power blocks & Tower wagon working, panto Entanglement cause & remedies, breakdown maintenance, power supply feeding arrangement in TSS, SSP, SP, protection scheme & SCADA, PSI maintenance schedule, latest development & SMIs, open access, SEC, & PAT cycles of BEE, TDMS.
4	TRO	Organization and Loco pilot information, Crew Link, Loco Link, Loco Pilot duty/Rest rules, C.M.S.,GR & Safety, Foot plate inspection, Classification of Accident and Accident Management, Crew Depot & Running Room, LIs & monitoring of LPs, TRO performance parameters, WTT and section control chart, CMS.
5	Power Electronics	Passive and active components resonance, filters semiconductor switches, IGBT and GTO, Rectifier /Inverters, Electric Drives & PWM techniques, 25KVA Inverters & ERRU.
6	Computer:	MS word & Excel (Edit, Formatting, Basic Formula, Chart, edit chart, MS PPT(Edit, Formatting, Insert table, insert chart, insert picture, animation, Applying design & slide show, hands on practical.
7	EMU/MEMU	Introduction of EMU/MEMU, power & Auxiliary circuits, pneumatic Circuit, suspension system of conventional & 3-ph EMU/MEMU & Green Energy solar & wind.
8	General Service (GS)	Organization set up, Earthing, Types of pumps & Selection, Energy conservation measures, fundamental of lighting, lift & escalators IE Act, IE Rules, star rating of equip. Sub- station & Power supply, TMS.