the syllabus for any government undertaken industry exam for telemetry is  
  
  
Electronics and Communication Syllabus

1. Materials and Components: Structure and properties of Electrical Engineering materials; Conductors, Semiconductors and Insulators, magnetic, Ferro electric, Piezoelectric, Ceramic, Optical and Super-conducting materials. Passive components and characteristics Resistors, Capacitors and Inductors; Ferrities, Quartz crystal Ceramic resonators, Electromagnetic an Electromechanical components.

2. Physical Electronics, Electron Devices and ICs: Electrons and holes in semiconductors, Carrier Statistics, Mechanism of current flow in a semiconductor, Hall effect; Junction theory; Different types of diodes and their characteristics; Bipolar Junction transistor; Field effect transistors; Power switching devices like SCRs, CTOs, power MOSFETs; Basics of ICs – bipolar, MOS and CMOS types; basic to Opto Electronics.

3. Signals and Systems Classification of signals and systems: System modeling in terms of differential and difference equations; State variable representation; Fourier series; Fourier representation; Fourier series; Fourier transforms and their application to system analysis; Laplace transforms and their application to system analysis; Convolution and superposition integrals and their applications; Z-transforms and their  
Applications to the analysis and characterization of discrete time systems; Random signals and probability, Correlation functions; Spectral density; Response of linear system to random inputs.

4. Network theory Network analysis techniques; Network theorems, transient response, steady state sinusoidal response; Network graphs and their applications in network analysis; Tellegen`s theorem. Two port networks; Z, Y h and transmission parameters. Combination of two ports, analysis of common two ports. Network functions: parts of network functions, obtaining a network function from a given part. Transmission criteria: delay and rise time, Elmore’s and other definitions effect of cascading. Elements of network synthesis.

5. Electromagnetic Theory Analysis of electrostatic and magnetostatic fields: Laplace`s and Piossons’s equations; Boundary value problems and their solutions; Maxwell’s equations; application to wave propagation in bounded and unbounded media; Transmission lines: basic theory, standing waves,