ENDSEMS

Maths.

1) DE

- Order & Degree
- Variable Seperation
- Homogeneous DE
- Reducible to Homogeneous
- Exact DE
- Reducing to Exact
- Inspection method
- Bernoullis DE
- Linear DE (higher order)
- Sol of Non-homogeneous DE (5 cases)
- Leibnitz rule
- Variation of parameter (~~Work~~ Wronskian)
- Cauchy DE
- Legendre's DE
- Simultaneous DE

2) Numerical methods

- → ∇, Δ
- → shift operator
- → NF DIF / NBDIF
- → Lagrange's Interpolation
- → Divided Diff
- → Differentiation
- → IVT, Bisection method
- → Regular Falsi "
- → N-R method
- → Numerical Integration
- → Non Linear Simultaneous eq (N-R-m)
- → Taylor Series method
- → Eulers method + E. modified
- → Runge Kutta

3) Matrix Algebra

- → Elementary Row operation
- → Rank of a matrix
- → Echelon form
- → Gauss - Jacobi method
- → Gauss - Siedel
- → Eigen values + vectors
- → Rayleigh Method
- → Gauss - Jordan "

4) Linear Algebra

EP:

1) Interference 2) Diffraction 3) Quantum Phy
4) Quantum Mech 5) Atomic Phy 6) Molecules & Solids.

MOS:

1) Resultant & Equilibrium
2) Centroid & MOI
3) Stress & Strain
4) Statistically Indeterminate Prob
5) Thermal Stress
6) Fluid Pressure Stresses.
7) BMSD.

BE:

1) Analog:
- Diode & app
- BJT " "
- OP amps

2) Digital:
- Numerical Codes & Systems
- Boolean
- Logic Gates
- Flip Flops & app.

3) Communication

- Analog Comm
- Digital "
- Communication networks
- Mobile Communications

BME

1) Prop Steam & Boilers
2) Prime Movers
3) Power Plant
4) IC Engine
5) Refrigeration
6) Lubrication
7) Transmission
8) Machine Tools
9) Casting & Forging
10) Welding & Soldering.