WMO Arts & Science College , Muttil
Department of Physics
Syllabus for Bridge Course

Mathematical Physics(10 hrs)

1. Vectors :
Rectangular, cylindrical and spherical polar coordinate system, gradient, divergence, and curl , divergence theorem and Stoke's theorem.

2. Matrices and Tensors :
Definition, types, arithmetic operations of matrices, inverse of a matrix.

3. Differential Equation :
Separable equations , homogeneous equations, integrating factor, exact differential equations,
Second order DE and their solutions.

4. Fourier series : General expansion , advantages, problems