D.N.R. COLLEGE(A),BHIMAVARAM

Syllabus for Bridge course

For all I B.Sc. PHYSICS STUDENTS

1. Vectors (2hrs)

Scalars & vectors – Types of vectors – Addition and subtraction of vectors – resolution of vectors – multiplication of vectors – scalar and vector products, examples and problems.

1. Mechanics(2hrs)

Newton’s laws of motion – conservation of momentum and energy – collisions, circular motion – angular velocity, angular acceleration and Torque Rigid body – Moment of Inertia – parallel and perpendicular axes theorems

1. Gravitation (2hrs)

Newton’s law of gravitation – acceleration due to gravity of earth (g), Kepler’s laws of planetary motion – satellites.

1. Mechanical properties of solids and fluids(2hrs)

Stress, strain, Hook’s law – Elastic modulii – viscosity – surface tension

1. Oscillations (2hrs)

Periodic motion – SHM – free, damped and forced oscillations, Waves – Longitudinal and transverse waves, examples