

INDEX

- Absorption coefficient** 242
- Acceleration-time curve** 7
- Acoustics of buildings** 257
- Acoustic grating** 264
- Acoustic intensity** 245
- Adiabatic elasticity** 95
- Aircraft detection** 234
- Amplitude** 2
- Antinode** 110
- Average kinetic energy** 7
- Average potential energy** 8

- Beats** 127
- Bel** 173
- Blackburn's pendulum** 51
- Bloodless surgery** 270
- Building acoustics** 264
- Building up of diatonic scale** 176

- Cagniard de la Tour's siren** 218
- Cathode ray oscillograph** 229
- Characteristics of musical sound** 169
- Characteristics of wave motion** 70
- Chronographic method** 221
- Circle of reference** 2
- Closed end organ pipe** 159
- Combination tones** 133
- Composition of SHMs** 37

- Damped oscillations** 21
- Damped vibrations** 58
- Decibel** 172
- Degree of freedom** 21
- Depth of sea** 268
- Diatonic scale** 176
- Diffraction of sound** 211
- Differential equation of wave motion** 78
- Difference tone** 133
- Displacement** 2
- Distribution of energy** 16
- Doppler effect in light** 186

- Doppler effect in sound** 181

- Ear Trumpet** 205
- Echo** 203
- Energy of a progressive wave** 82
- Energy of a stationary wave** 119
- Energy of a vibrating particle** 8
- Energy of vibration** 16
- Epoch** 5
- Equal tempered scale** 176
- Equation of simple harmonic wave** 77

- Falling plate method** 220
- Figures, Lissajous'** 37
- First difference tone** 133
- Flight of bullet** 235
- Forced vibration** 59
- Fourier series** 271
- Fourier theorem** 271
- Frequency** 73
- Free vibrations** 57

- Galton's whistle** 260
- Gramophone** 225
- Graphical method—Lissajous' figures** 37
- Graphical representation of SHM** 6
- Group velocity** 280

- Harmonic oscillators** 1
- Helmholtz resonator** 133
- Human ear** 169
- Human voice** 169
- Humidity, effect of** 100

- Incident wave** 111
- Infra-sonics** 260
- Intensity of sound** 170
- Interference of sound** 121
- Interference of sound, Seebeck's method** 126

- Interference of sound, Quincke's method 125
- Isothermal elasticity 95
- Kundt's tube 164
- Laplace's correction 95
- Laws of vibration of strings 146
- LC circuit 33
- Linear homogeneous equations 22
- Linearity principle 22
- Lissajous' figures 37
- Location of sound 234
- Longitudinal waves motion 74
- Loudness 169
- Loud speaker 225
- Major tone 176
- Magnetostriction 261
- Mass between two springs 26
- Megaphone 205
- Melde's experiment 152
- Microphone 225
- Minor tone 176
- Musical scale 175
- Musical sound 167
- Newton's formula for velocity of sound 94
- Nodes 110
- Noise 167
- Octave 176
- Open end pipe 160
- Optical method 51
- Organ pipe 159
- Origin of sound 91
- Oscillatory behaviour 3
- Overtones of closed end pipe 160
- Overtones of open end pipe 160
- Particle velocity 79
- Pendulum, Blackburn's 51
- Pendulum, simple 24
- Phase 5
- Phase of resonance 64
- Phonic motor 224
- Phon 174
- Peizo-electric oscillator 262
- Pitch 170
- Progressive waves 74
- Properties of progressive waves 74
- Properties of stationary waves 110
- Quality factor 65
- Quality of sound 169
- Quartz crystal method 262
- Quincke's tube 125
- Ranging, sound 232
- Recording of sound 226
- Reflected wave 112
- Reflection of sound 201
- Refraction of sound 211
- Reproduction of sound 225
- Resonance 157
- Resonator, Helmholtz 133
- Reverberation 237
- Ripple tank 75
- Sabine's formula 238
- Saw-tooth wave 276
- Scale diatonic 176
- Scale equal tempered 176
- Seebeck's tube 125
- Semi tone 176
- Sensitive flame 264
- Sharpness of resonance 61
- Silence zone 126
- Simple harmonic motion 2
- Simple harmonic wave equation 77
- Simple pendulum 24
- Siren 218
- Sonometer 147
- Sound ranging 232
- Speech 168
- Speaking tube 205
- Square wave 274
- Stationary waves 108
- Stationary waves properties 110

- Stretched strings 142
- Stroboscopic method 222
- Supersonic speed 235
- Superposition principle 22
- Tank, ripple 75
- Tape recording 226
- Temperature, effect of 96
- Tempered scale 176
- Thermal detector 264
- Timbre 170
- Tone, major 176
- Tone, minor 176
- Tone, semi 176
- Transverse vibration of strings 142
- Transverse wave motion 75
- Tuning fork 111
- Ultrasonics 260
- Ultrasonics applications of 268
- Undamped vibrations 57
- Velocity of sound in air 101
- Velocity in water 100
- Velocity in gases 92
- Velocity in solids 102
- Velocity-time curve 6
- Vibrations of air columns 156
- Vibrations in plates 166
- Vibrations in rods 163
- Wavelength 73
- Wave motion 69
- Waves, stationary 108
- Whistle, Galton's 260
- Whispering gallery 203
- Wave apparatus 75
- Wave velocity 280