

CONTENTS

Preface	v
Introduction	vii
Part I Solid State Physics	1
1.1. Crystal Structures and Properties (1001–1027)	3
1.2. Electron Theory, Energy Bands and Semiconductors (1028–1051)	46
1.3. Electromagnetic Properties, Optical Properties and Superconductivity (1052–1076)	105
1.4. Other topics (1077–1081)	155
Part II Relativity	165
2.1. Special Relativity (2001–2007)	167
2.2. General Relativity (2008–2023)	184
2.3. Relativistic Cosmology (2024–2028)	226
Part III Miscellaneous Topics	241
3.1. History of Physics and General Questions (3001–3025)	243
3.2. Measurements, Estimations and Errors (3026–3048)	283
3.3. Mathematical Techniques (3049–3056)	327
Index to Problems	347