

HIGHWAY ENGINEERING



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REVISED
& ENLARGED

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ABOUT THE BOOK

Highway Engineering is a specialised subject within the discipline of Transportation Engineering which deals with the design, methods of construction, planning, alignment and maintenance of highways and more connected with the subject of highway engineering.

Plenty of new matter, numerous examples, useful tables and figures have been added in this edition. Almost all the drawings are replaced with more detailing. Few chapters are entirely rewritten with the inclusion of the latest developments in the field. Some chapters are revised according to the latest I.R.C. codes. So many topics, matter and chapters are re-grouped and rearranged.

The outline of the book is:

Chapter 1 deals with introduction to highway engineering, scope, history of road construction, developments of roads in India at various stages and about the Indian institutions for highway.

Chapter 2 discusses highway planning and alignment.

Chapter 3 explains geometric design of highways.

Chapter 4 Whole new chapter on "Subgrade Soil" is added which discusses every facet of soil support to road pavement and also some methods of soil testing.

Chapter 5 is about highway materials and testing.

Chapter 6 through 10 deal with design of highway pavements. low cost roads, bituminous as well as cement concrete roads (high cost roads) and other types of highway pavements respectively. Chapter 11 describes hill roads.

Chapter 12 and 13 elucidate highway drainage as well as highway failure and maintenance.

Chapter 14 emphasis on the topics of highway arboriculture and lighting.

Chapter 15 focuses on all aspects about highway economics.

Chapter 16 on "Highway Making Machinery" is extensively enlarged with additions of various machineries used in the highway construction.

Chapter 17 gives topics on traffic engineering.

The book is divided into seventeen well-arranged chapters: therein it contains—

- 315 Self-explanatory and neatly drawn sketches
- 57 Illustrative problems
- 89 Important tables
- 451 Typical questions at the end of each chapter.

The book in the present form will prove to be extremely useful to the students preparing for the Degree examinations in Civil Engineering of all the Indian Universities, Diploma examinations conducted by various Boards of Technical Education, Certificate Courses as well as for the A.M.I.E., U.P.S.C., G.A.T.E., I.E.S., and other similar competitive and professional examinations. It should also be an immense use to practicing Civil Engineers.

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 - (iii) Applying the binder and blindage
 - (iv) Rolling
 - (v) Applying seal coat and opening for traffic
 - (5) Bitumen bound macadam
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 - (ii) Application of tack coat
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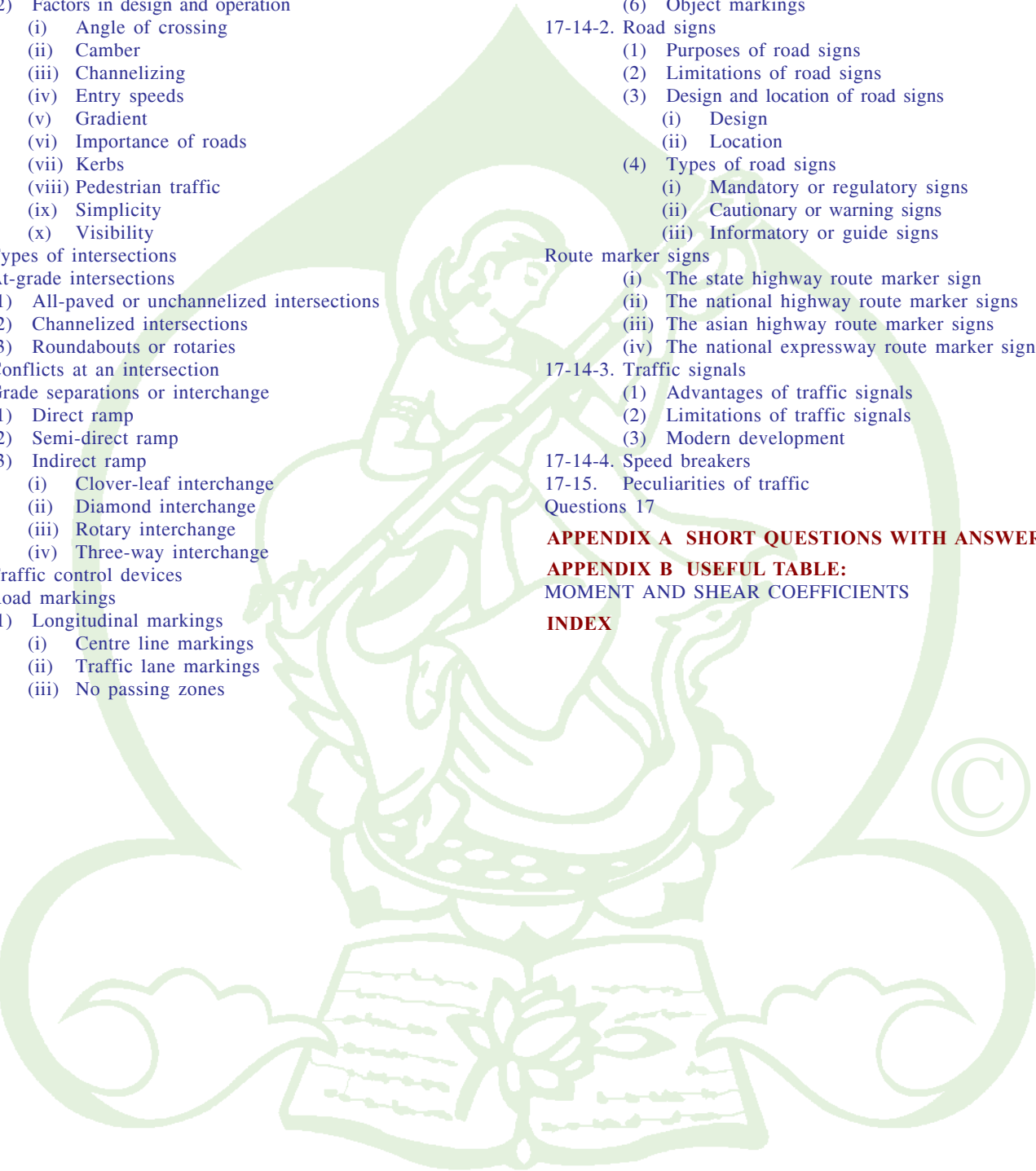
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APPENDIX A SHORT QUESTIONS WITH ANSWERS

APPENDIX B USEFUL TABLE: MOMENT AND SHEAR COEFFICIENTS INDEX