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Total No. of Questions—12]

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**[3662]-112**

**S.E. (Mech. Sand.) (I Sem.) EXAMINATION, 2009**

**METALLURGY**

**(2008 PATTERN)**

**Time : Three Hours**

**Maximum Marks : 100**

- N.B. :-**
- (i) Answer any *three* questions from each Section.
  - (ii) Answers to the two Sections should be written in separate answer-books.
  - (iii) Neat diagrams must be drawn wherever necessary.
  - (iv) Figures to the right indicate full marks.
  - (v) Assume suitable data, if necessary.

**SECTION I**

1. Solve the following :

- (A) Explain the effect of the following crystalline defects on properties of materials :
  - (i) Point defects
  - (ii) Line defects. [6]
- (B) What is recrystallization ? Define recrystallization temperature. Explain the factors affecting recrystallization process. [6]
- (C) Derive the equation for critical resolve shear stress during slip in a single crystal. [4]

P.T.O.

