

✓ May - June 2012

Total No. of Questions—12]

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Seat No.	
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[4162]-112

S.E. (Mechanical) (First Semester) EXAMINATION, 2012

METALLURGY

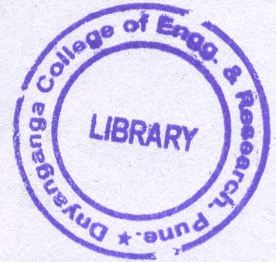
(Mechanical and Mechanical S/W)

(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 required.



SECTION I

Unit I

1. (a) What are the various point defects in a crystal ? What is the effect of these defects on the property of material ? [6]
- (b) Define and explain coldworking of metals. Why is annealing followed by coldworking ? [6]
- (c) Derive an expression for critical resolved shear stress of a single crystal. Calculate resolved shear stress of a single crystal if applied tensile stress is 25 kg/mm^2 and slip plane is oriented 60° to tensile axis. [6]

P.T.O.

