

Nov-Dec-2012

Total No. of Questions—12]

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Seat No.	
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[4262]-201

S.E. (First Semester) EXAMINATION, 2012

(Common for Computer & IT)

DISCRETE STRUCTURE

(2008 PATTERN)

Time : Three Hours

Maximum Marks : 100

N.B. :— (i) Answer Q. Nos. 1 or 2, 3 or 4, 5 or 6 from Section I and Q. Nos. 7 or 8, 9 or 10 and 11 or 12 from Section II.

(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. (a) By using mathematical induction prove that :

$$1^3 + 2^3 + \dots + n^3 = \frac{n^2(n+1)^2}{4} \quad [6]$$

P.T.O.



