5E3164-S

Roll No. : _____ Total Printed Pages : 4

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B. Tech. (Sem. V) (Main/Back) Examination, December - 2011
Computer Engg.
5CS6.1 Logic & Functional Programming

Time : 3 Hours] [Maximum Marks : 80
[Min. Passing Marks : 24

Instructions to Candidates :

*Attempt any **five questions** selecting **one question** from **each unit**. All questions carry **equal** marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.*

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. NIL 2. NIL

UNIT - I

1 (a) Find the dual of following propositions :

(i) $(p \wedge T) \vee (q \wedge T)$

(ii) $(p \wedge q \wedge r) \vee s$

2×2=4

(b) Show that for any propositions p, q, r, s the formula given is tautology :

$(p \wedge q) \wedge (r \wedge s) \rightarrow p$ using truth tables.

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(c) Give proper definitions of the following :
(i) tautology
(ii) wff of PL
(iii) state (or interpretation)
(iv) satisfiable proposition

2×4=8

OR