

4E2923

Roll No. : _____

Total Printed Pages : **3****4E2923****B. Tech. (Sem. IV) (Main/Back) Examination, June/July - 2012****Computer Engg. & I.T.****4IT6.3 - Logic & Functional Programming**Time : **3 Hours**[Total Marks : **80**[Min. Passing Marks : **24**

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 Evaluate each propositions given below into states given below -

$$S_1 = \{(P, T), (q, F), (r, F)\}$$

$$S_2 = \{(P, F), (q, F), (r, T)\}$$

(a) $P \wedge q \Rightarrow r$

(b) $P \Rightarrow q \Leftrightarrow r$

(c) $(P \vee q) \wedge (p \Rightarrow q) \wedge (q \Rightarrow p)$

(d) $P \dot{\vee} q \wedge r$

4×4=16**OR**

1 (a) Explain "well formed formula" wff. Give truth table of logical operators in prepositions.

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(b) What do you mean by proposition, tautology, contradiction and contingency ?

2+2+2+2=8**4E2923]****1****[Contd...**