P.S SCIENCE & H.D. PATEL ARTS COLLAGE, KADI

Internal examination

Set - A | B.sc SEM- V | [ Marks :40 ]

[Dt: 19 - 9 - 2017] | Mathematics – CCMATH -504(A) | [ 1:45 to 3:45 ]

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**1 Attempt any two.**

a) Define Lattice.

Draw Hasse diagram of<s,24>, <P({a, b, c}),≤ >

b) Let< L, ≤> be a lattice. Then P. T ∀a, b ∈ L

$a \leq b \Leftrightarrow a^* b$

c) State & Prove distributive inequality.

**2 Attempt any two.**

a) Define complimented latice with illustration.

b) Define atom with illustration.

c) State & Prove De morgan's law.

**3 Attempt any two.**

a) Define Boolean expression with illustration.

b) Write the following Boolean expression in an equivqlent SOP canonical form in three variables a, b, c

$a * b$

c) Write the following Boolean expression in an equivqlent POS canonical form in three variables a, b, c

$a + b$

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