TUTORIAL-10 (EE 101: Basic Electronics)

DEPARTMENT OF ELECTRONICS & ELECTRICAL ENGINEERING, IIT GUWAHATI

PRE-TUTORIAL ASSIGNMENT *(To be solved in the space provided)*

Name:	**Roll No.**	**Tutorial Group:**

Problem: Design a 2-bit squarer circuit

TUTORIAL-10: PROBLEMS

Problem-1: Design a combinational circuit which multiplies the given 3-bit number by 3.

Problem-2: Implement full adder using two half adders and a two-input OR gate.

Problem-3: Find the equivalent inductances seen at terminals 1 and 2 in the network of Fig. 1 if the following terminals are connected together: (a) none, (b) A to B, (c) B to C and (d) A to C.

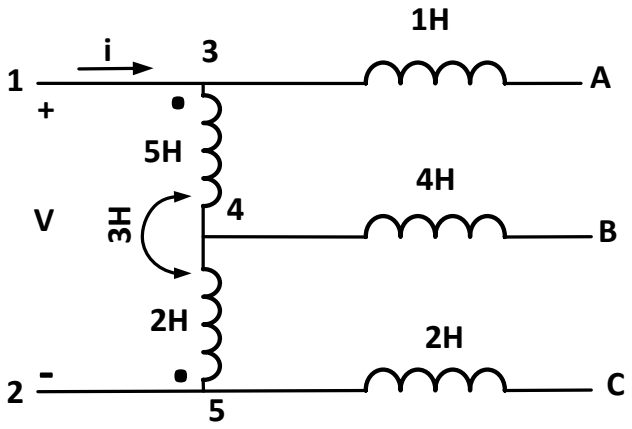

Fig.1

Problem-4: Let $I_{S1} = 4t$ **A** and $I_{S2} = 10t$ **A** in the circuit shown in Fig. 2. Find the voltages (a) V_{AD} (b) V_{CD} and (c) V_{BD}.

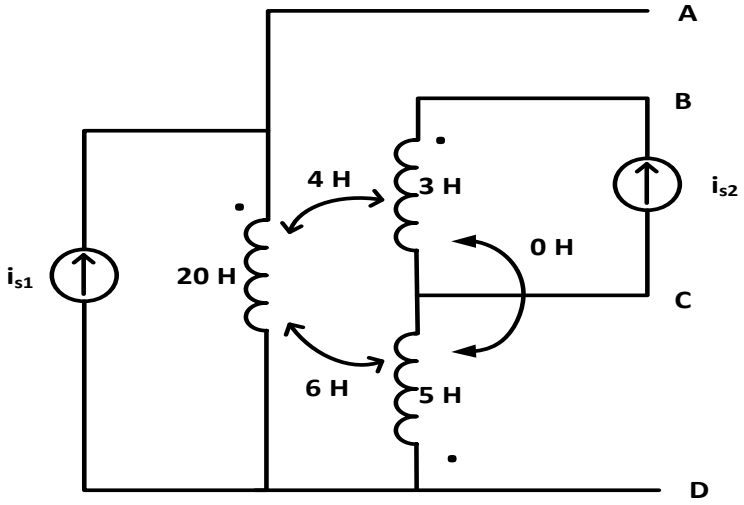

Fig.2