Assignment #01

Marks: 15
Due: Wednesday, October 12, 2022 (before 1:00 P.M.)

Problem Definition: A distributed system consists of three processes P_1, P_2 and P_3 respectively as given by the following diagram. The three processes communicate by using messages M_1, M_2, M_3, M_4 and M_5 respectively as indicated in the diagram. Let LC_1, LC_2 and LC_3 be the logical clocks of P_1, P_2 and P_3 respectively and are initially set to be zero. Also let VC_1, VC_2 and VC_3 be the logical clocks of P_1, P_2 and P_3 respectively and are initially set to be zero. Now,

    (1) Order the events of the above system by using **Lamport's Logical** clock.   **(4 marks)**:

    (2) Apply the **Vector Clock** for ordering the events of the above given system   **(8 marks)**:

    (3) Indentify the parallel events in the system.   **(3 marks)**:
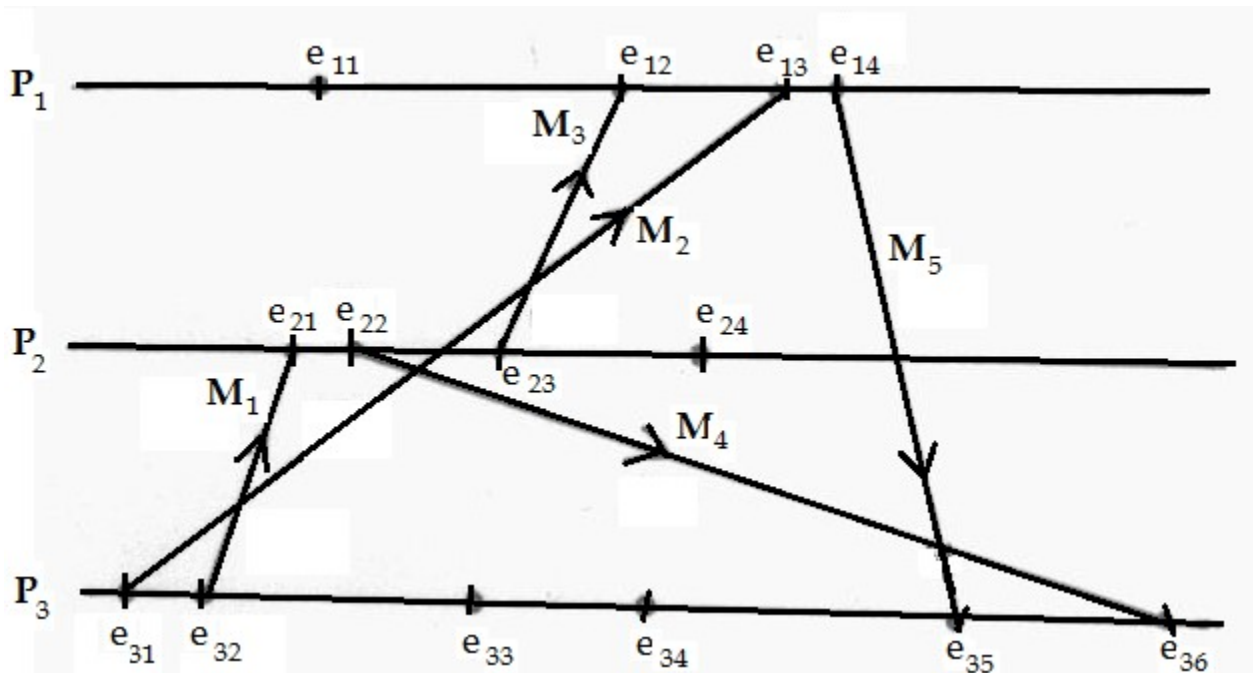
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