1) 2 marks
   Draw a diagram of the main excitatory circuitry in the rodent hippocampus.

2) 1 mark
   What is the key feature of NMDA receptors that make them important for
   synaptic plasticity?

3) 2 marks
   Which excitatory hippocampal synapses show NMDA receptor dependent synaptic plasticity?

4) 5 marks
   Discuss the differential roles of NMDA receptors in area CA1 and CA3 in the distinct phases of
   hippocampus dependent memory (i.e. acquisition, consolidation, recall). Include in your
   discussion a description of the type of genetically engineered mice and behavioral paradigms
   that have been used in the literature, or that you believe should be made and used in order to
   elucidate these distinct roles of the NMDA receptor in the hippocampus.