一、Define the following terms. (20%)
　　1. Sustainable development
　　2. Equilibrium
　　3. Apperception interval
　　4. Channelization
　　5. Superelevation

二、Show the theoretical relationship between speed and flow. What does a straight line projecting from the origin represent? (20%)

三、The speed-density relationship of traffic on a section of a freeway lane was estimated to be $v=18.2\ln(220/k)$. What is the maximum flow and jam density? (20%)

四、Define the term of BOT (short for Build, Operate and Transfer). Show by the Taiwan High Speed Rail Project the advantages and disadvantages of BOT application in transportation infrastructure. (20%)

五、Describe the contents of a county-level Transportation White Paper. How do you prioritize the road segments to be widened or constructed? (20%)