

# 國立嘉義大學九十三年學年度

## 運輸與物流工程研究所碩士班招生考試(運輸組)試題

### 科目：運輸工程

- 一、 Discuss the importance of transportation in an integrated logistics. (25%)
  
- 二、 The u-k relationship for a particular freeway lane was found to be
$$u + 2.6 = 0.001(k - 240)^2$$
Given that the speed is km/h and the concentration is in veh/km, find the free-flow speed, the jam concentration, the lane capacity, and the speed at capacity. (25%)
  
- 三、 Select one topic from each of the following subject area which you consider to be suitable for thesis research. Justify each selection briefly. (25%)  
Prepare an outline of research proposals for any one of the topics.
  1. Intersection control
  2. Urban freight movement
  3. Technological innovation in transportation
  4. Travel demand modeling for new services
  5. Supply chain network design
  
- 四、 Discuss the need for Transportation Systems Management (TSM). What different strategies can be considered in TSM? Please give an example for each strategy. (25%)