

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. In general, which factors could influence the water consumption quantity in a particular community?
(15 %)
2. In general, which factors could influence the quantity and composition of municipal solid waste in a particular community? (15 %)
3. Define the “Endocrine disruptor” and describe the ‘Endocrine disruptor hypothesis” (10 %)
4. Please explain why the “Coliform group” is the good biological indicator for drinking water? (10 %)
5. What is the current status of the African swine fever in Taiwan? (5%) If we use kitchen waste to feed animals, what actions are needed to reduce the transmission of the African swine fever? (10%)
6. Each student needs 2 m^2 of room in a classroom, the classroom is (6 meters wide, 10 meters in length, and 4 meters high), how many students are allowed in this classroom? (5%) One air purifier can clean $120 \text{ m}^3/\text{hr}$, how long does it take to clean the whole classroom? (5%) The air purifier delivers air through an opening area of 60 cm^2 , what is the velocity (in m/s) measured right at the opening of the air purifier? (5%)
7. Read the following article, do you agree or disagree with the statement? Please show your reasons. (20%)
“Little cofe”, a traditional medicine for curing cough has now proved to be effective. In a recent study, we divided 20 volunteers with different cough symptoms into two groups, 10 in each group. Group 1 used “Little cofe” for three days while Group 2 did not take any medication. After one week, 7 out of 10 and 5 out of 10 in group 1 and group 2, respectively were cured. Therefore, the study proves that “Little cofe” can cure cough in a short period of time.”