

※ 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. The following paragraphs are adopted from [Letters to a Young Scientist, p. 25 and p. 28], Please translate it accurately and concisely into Chinese. (50%)

(1) My confessional instead is intended to illustrate an important principle I've seen unfold in the careers of many successful scientists. It is quite simple: put passion ahead of training. Feel out in any way you can what you most want to do in science, or technology, or some other science-related profession. Obey that passion as long as it lasts. Feed it with the knowledge the mind needs to grow. Sample other subjects, acquire a general education in science, and be smart enough to switch to a greater love if one appears. But don't just drift through courses in science hoping that love will come to you. Maybe it will, but don't take the chance. As in other big choices in your life, there is too much at stake. Decision and hard work based on enduring passion will never fail you. (25%)

(2) If, on the other hand, you are a bit short in mathematical training, even very short, relax. You are far from alone in the community of scientists, and here is a professional secret to encourage you: many of the most successful scientists in the world today are mathematically no more than semiliterate. A metaphor will clarify the paradox in this statement. Where elite mathematicians often serve as architects of theory in the expanding realm of science, the remaining large majority of basic and applied scientists map the terrain, scout the frontier, cut the pathways, and raise the first buildings along the way. They define the problems that mathematicians, on occasion, may help solve. They think primarily in images and facts, and only marginally in mathematics. (25%)

2. 地球科學的學科特性為：(1)注重野外調查或觀測 (2)時空尺度範圍廣大 (3)重視地域性 (4)整合性。請以英文詳述上述特性。(50%)