

考 試 科 目	61913 英文閱讀與寫作	系 所 別	東南亞語言與文化學士學位學程	考 試 時 間	7 月 11 日(三) 第二節
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I. Reading Comprehension: 30%

Read the following passage and answer all the questions.

What was once the greatest mystery of biology, the human brain, is gradually yielding its secrets. Investigators are probing its deepest recesses with increasingly powerful tools. Emboldened by these achievements, a growing number of scientists have dared to address what is simultaneously the most elusive and inescapable of all phenomena: consciousness, our immediate, subjective awareness of the world and of ourselves. Francis Crick turned to neuroscience shortly after he moved from England to the Salk Institute for Biological Studies in San Diego almost 20 years ago. Just as only the late Richard M. Nixon, famous for his red-baiting, could reestablish relations with communist China, so only Crick, who possesses a notoriously hard nose, could make consciousness a legitimate subject for science. Neuroscientists are still far from agreeing on how consciousness should be studied or even defined. One prominent worker claims to have already "solved" consciousness: Gerald M. Edelman of the Scripps Research Institute, who shared a Nobel Prize in 1972 for research on antibodies. Edelman contends that our sense of awareness stems from a process he calls neural Darwinism, in which groups of neurons compete with one another to create an effective representation of the world. Edelman has promulgated this theory in a series of books, published in 1992. Tomaso Poggio of the Massachusetts Institute of Technology, an authority on perception, thinks Crick may place too much emphasis on mechanisms that might coordinate, or bind together, the firings of neurons responding to a visual scene. Conversely, Crick may unduly neglect the role that the brain's plasticity, or ability to change its circuitry, might play in creating consciousness and other aspects of the mind, according to Poggio. Antonio R. Damasio of the University of Iowa, who maps our mental faculties by studying brain-damaged patients, holds that because a theory of consciousness must show how each of us acquires a sense of self, it must take into account not just the brain but the entire body. Damasio also believes that because consciousness is shaped by an individual's interactions with the environment and with other people, a neural model of consciousness will probably have to be supplemented by cognitive and social theories. As neuroscientists debate these issues among themselves, others have challenged whether conventional neuroscience--despite its success in illuminating other attributes of the mind--can ever account for consciousness. Members of this eclectic group hail primarily from traditions outside mainstream neuroscience, such as physics and philosophy. Such individuals often seem less interested in clarifying consciousness than in mystifying it. Science alone cannot supply an answer to this question, Chalmers declares. Unlike McGinn, however, Chalmers holds that philosophers can and must construct a higher-level theory to bridge that "explanatory gap" between the physical and subjective realms. In fact, Chalmers has such a theory. He asserts that just as physics assumes the existence of properties of nature such as space, time, energy, charge and mass, so must a theory of consciousness posit the existence of a new fundamental property: information. The concept of information, Chalmers explains, has aspects that are both physical and "phenomenal". The field of consciousness studies is struggling with its own binding problem.

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(Adapted from John Horgan's article in 1994)

1. State the theme of the passage.
2. State the main arguments about the theme.

II. Composition: 70%

It is claimed that language is key to understanding humanity. Write an essay of about 500 words to state whether you agree or disagree with the claim.



備 註

- 一、作答於試題上者，不予計分。
- 二、試題請隨卷繳交。