國立彰化師範大學103學年度博士班招生考試試題

系所：地理學系　　科目：地理學論著評讀

☆☆請在答案紙上作答☆☆　　

1.請就下列選自 Tuan, Y.F. 1976. Humanistic geography. *Annals of the Association of American Geographers* 66: 266-276. 的文獻進行評讀，包括描述、分析與實例運用。(35%)

"A person is his biology, his environment, his past, accidental influences, how he sees the world, and how he deliberately prepares a public image. The identity of a place is its physical character, its history, and how people make use of their past to foster regional consciousness" (Tuan, 272).

"Opportunity, for the humanist, lies in attempting to understand in depth the nature of beliefs, attitudes, and concepts; the strength with which they are held; their inherent ambivalences and contradictions; and their effects direct as well as indirect, on action" (Tuan, 273).

"One of the humanist's functions is to make the virtues and defects of a culture explicit.…
The humanist will show how place is a shared feeling and a concept as much as a location and a physical environment. He can suggest means by which a sense of place may be enhanced" (Tuan, 275).

2. Please read the following paragraphs and give your comments. (35%)

A changing climate leads to changes in the frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, and can result in unprecedented extreme weather and climate events.

Extreme events will have greater impacts on sectors with closer links to climate, such as water, agriculture and food security, forestry, health, and tourism. For example, while it is not currently possible to reliably project specific changes at the catchment scale, there is high confidence that changes in climate have the potential to seriously affect water management systems. However, climate change is in many instances only one of the drivers of future changes, and is not necessarily the most important driver at the local scale. Climate-related extremes are also expected to produce large impacts on infrastructure, although detailed analysis of potential and projected damages are limited to a few countries, infrastructure types, and sectors.

In many regions, the main drivers of future increases in economic losses due to some climate extremes will be socioeconomic in nature (medium confidence, based on medium agreement, limited evidence). Climate extremes are only one of the factors that affect risks, but few studies have specifically quantified the effects of changes in population, exposure of people and assets, and vulnerability as determinants of loss. However, the few studies available generally underline the important role of projected changes (increases) in population and capital at risk.

Increases in exposure will result in higher direct economic losses from tropical cyclones. Losses will also depend on future changes in tropical cyclone frequency and intensity (high confidence). Overall losses due to extratropical cyclones will also increase, with possible decreases or no change in

some areas (medium confidence). Although future flood losses in many locations will increase in the absence of additional protection measures (high agreement, medium evidence), the size of the estimated change is highly variable, depending on location, climate scenarios used, and methods used to assess impacts on river flow and flood occurrence.

Disasters associated with climate extremes influence population mobility and relocation, affecting host and origin communities (medium agreement, medium evidence). If disasters occur more frequently and/or with greater magnitude, some local areas will become increasingly marginal as places to live or in which to maintain livelihoods. In such cases, migration and displacement could become permanent and could introduce new pressures in areas of relocation. For locations such as atolls, in some cases it is possible that many residents will have to relocate.

【Source: IPCC, 2012: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp.】

3. Please read the following paragraph and give your comments. (30%)

Human beings have never before had such a great impact on the earth environment in recorded history. Our activities have changed land cover, water and nutrient cycling, the chemistry of the atmosphere, and therefore, climate systems and the structure and function of ecosystems. In turn, the anthropogenically induced environmental changes have influenced our well-being. More importantly, many current human induced environment issues are not restricted to a given region or country, but are having global impacts. Regular global measurements from satellites play a crucial role in monitoring the earth, which can provide advanced warning to allow for favorable environmental change (Running et al., 2006).

The atmospheric CO_2 concentration measurements has given us the advanced warning for global climate change, and led to the 1997 “Kyoto Protocol”, the international treaty on climate change, assigning mandatory targets for the reduction of greenhouse gas emissions to signatory nations. The other lesson we learned from the use of satellite data to study the carbon cycle is that it is vital to have basic standard datasets for use in land science. We have made a lot of discoveries using only NDVI. However, the quality of NDVI is very critical for the science research, and there should be some MODIS-like land products generated continuously, with similar sensor spatial resolution, quality flags, and easy access data formats.

【Source: Advances in Land Remote Sensing System, Modeling, Inversion and Application. Ch16. Remote Sensing of Terrestrial Primary Production and Carbon Cycle. pp.438-439】