國立臺北科技大學九十八學年度碩士班招生考試

系所組別:3140 土木與防災研究所丁組

第一節 工程英文 試題

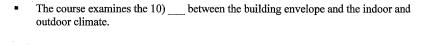
第一頁 共二頁

注意事項:

- 1. 本試題共五題組,計50小題,每小題2分,配分共100分。
- 2. 請標明大題、子題編號作答,不必抄題。
- 3. 全部答案均須在答案卷之答案欄內作答,否則不予計分。

請根據每題中的文意,填入最符合空格之英文字的代表字母。 $(2 \times 50 = 100)$

第一	-組 GROUP I						
	nitialization b. interaction c. consolidation d. corrosion e. verification oplication g. irradiation h. infrastructure i. extremes j. remediation						
	Civil engineering is the 01) of physical and scientific principles.						
•	Civil Engineering covers issues including public 02) renewal and environmental 03						
	'						
•	Topics include basic simulation methodology; design of simulation experiments; model 04); validation and 05)						
•	The use of admixtures; choice of cements; environmental influences; methods of 06) and testing techniques will be studied.						
•	This course will investigate variations or 07) in temperature or moisture, exposure t chemical or biological activity, aging, or solar 08)						



• Case studies of problems in structures due to reinforcement 09) ____, alkali-aggregate reaction and free-thaw cycling will be investigated in detail.



第二組 Group II

	ssessment b. advances c. liability d. uncertainty e. framework trability g. perspective h. permeability i. modeling j. disputes							
•	Students are taught how to combine theory, measurement and 11) to develop a good understanding of the problems at hand.							
	The history of civil engineering is intricately linked to 12) in understanding of physics and mathematics throughout history.							
E	This course will explore the building construction industry from a management 13) The building construction process will be placed in context of how construction and design disciplines are coordinated.							
•	The course presents a systems evaluation 14), including environmental, economic and policy analyses methods for evaluating engineering activities.							
•	Specific topics include life cycle 15); materials accounting; green engineering; risk assessment and management; benefit cost and cost effectiveness analyses; and 16) analysis.							
	Emphasis is placed on how to avoid construction contract problems, as well as how 17) may be efficiently resolved once they arise. Issues of payment security, bankruptcy, liens and professional 18) are also studied.							
	Material aspects of concrete production will be dealt with in the context of various performance criteria with emphasis on 19)							
•	Methods include those for pore structure and surface area by BET; 20) to vapor, gas and liquids; mineralogy by optical microscopy x-ray diffraction and thermal analysis.							
第三組 GROUP III								
a. sustainable b. ranging c. random d. ecological e. commencing f. alternative g. unacceptable h. dynamic i. hands-on j. pressing								
•	Special emphasis is on 21) failure and fragmentation with applications in mining and construction industries							
•	Civil engineering might be considered properly 22) between 4000 and 2000 BC in Ancient Egypt.							
•	Civil Engineering deals with some of the most 23) problems of our world and aims to provide 24) solutions to energy needs.							
9	This program emphasizes 25) design projects and case studies that supply context and motivation.							
•	Civil engineering is a wide 26) profession, including several separate specialized sub-disciplines.							

注意:背面尚有試題

第二頁 共二頁

A significant emphasis of the course is given to long-term planning of sustainable infrastructure: asset management and the fundamentals of 27)economics.							
 This course emphasizes techniques appropriate for investigating the 28) behavior of complex civil engineering systems. 							
This course will study how to avoid 29) effects on the materials of the building.							
This course investigates the issues and techniques for the evaluation of 30) plans, designs and policies for civil engineering systems.							
第四組 GROUP IV							
a. demanding b. contaminated c. legal d. particular e. acoustic f. geo-spatial g. monitoring h. residual i. porous j. cultural							
A study of building materials, components, details and construction methods with respect to the maintenance of the required temperature, moisture and 31) aspects of the interior of buildings.							
Topics covered include: inspection and monitoring of concrete structures (including instrumentation and non-destructive testing); identification of material failure mechanisms; 32) service life prediction; life cycle cost analysis; and methods of repair and rehabilitation.							
 Principles and cases are discussed with a view to providing students with an understanding of the 33) framework surrounding contractual documents. 							
 Topics include: Mechanics of saturated and unsaturated fluid flow in 34) media; Confined and unconfined flow; Non-reactive and reactive contaminant transport on groundwater systems; Assessment of environmental impacts of waste disposal operations; Remediation of 35) groundwater. 							
Water resources systems are physically complex and the solution of appropriate mathematical models is computationally 36)							
Topics include: society as a 37) system; industrialization as a process that simultaneously transforms technology, society and the biosphere; the modern corporation; underdevelopment and technology transfer; and sustainable development.							
This course will address: Principles and applications of space-based systems for 38) data acquisition with 39) focus on Global Navigation Satellite Systems, Remote Sensing and Geodetic Satellite Missions.							
 Applications for small to mid-scale engineering problems and larger scale Earth 40) systems will be addressed. 							
第五組 GROUP V							
a. activate b. complement c. demonstrate d. review e. apply							

f. re	educe	g. provide	h. integrate	i. present	j. affect	
п	with t	he various fact		the design of	of systems will be presented toge the climate partition. These facto	
-			/		nputing in creating a collaborative and 43) information.	;
•	govern		; and Problems		cient numerical solution of the ty, sensitivity to data and	
=	This p	project will 45)	the use and	l nature of war	ter resources systems	
•	disinf	ection, with an		ictor theory. L	coagulation, filtration, and aboratory experiments are design	ed to
•					rocess, biological nutrient remove ment and energy recovery.	ıl
-		atory experiment data.	ents 48) exp	erience in acq	uiring and interpreting biological	
			ents will 49) hniques of aqua		n which students learn some of th	.e

This course develops a conceptual framework for understanding technology-society interactions in order to 50) ____ the burdens imposed on society and the environment.