

考試時間 4 小時，closed book: 題目分成A、B二部份，作答時請注意各題之配分並標示題號

Part A: 50%

1. Sociotechnical systems theory 30%

(1)What is sociotechnical systems theory?

(2)Please list some sociotechnical concepts for the future.

(3)Refer to the following Table of sociotechnical systems model to design out your framework (draw the framework figure) in any real field of Information management (application), and explain your concepts and framework.

Models of sociotechnical system

Models and authors	Components of the sociotechnical system
Wilson (2000) model of interactions	<p>People interact with the following elements:</p> <ul style="list-style-type: none"> <li>● other people (cooperation interactions)</li> <li>● remote agents (temporal and spatial interactions)</li> <li>● structure, policy and roles (organization interactions)</li> <li>● supply chain (logistics interaction)</li> <li>● environment (setting interactions)</li> <li>● task</li> <li>● hardware and software (interface interactions)</li> <li>● society, finance and politics (contextual interactions)</li> </ul>
Smith and Carayon (Carayon and Smith, 2000; Smith and Carayon-Sainfort, 1989) model of work system	<ul style="list-style-type: none"> <li>● the individual</li> <li>● tasks</li> <li>● tools and technologies</li> <li>● physical environment</li> <li>● organizational conditions</li> </ul>
The Sociotechnical Systems Theory (Pasmore, 1988; Trist, 1981)	<ul style="list-style-type: none"> <li>● social system</li> <li>● technical system</li> <li>● environment</li> </ul>
Hendrick and Kleiner (Hendrick and Kleiner, 2001; Kleiner, 2004) model of work system sub-systems	<ul style="list-style-type: none"> <li>● personnel sub-system</li> <li>● technological sub-system</li> <li>● internal environment</li> <li>● external environment</li> <li>● task and organizational design</li> </ul>
SHELL (Software-Hardware-Environment-Liveware) model (cited by Rizzo et al., 2000)	<ul style="list-style-type: none"> <li>● software: practices, procedures, regulations and formal/informal rules</li> <li>● hardware: physical elements of the sociotechnical system (e.g., equipment, physical layout)</li> <li>● political, economic, social and legal environment in which the system functions</li> <li>● liveware: workers</li> <li>● liveware: other people the workers interact with, e.g., managers and other staff working in the system</li> </ul>
Rasmussen (2000) model of sociotechnical system	<ul style="list-style-type: none"> <li>● productive processes or the work performed by operators and workers</li> <li>● staff involved in planning the work</li> <li>● management who plans operations and supplies resources</li> <li>● company that interacts with various regulations</li> <li>● regulators and associations</li> <li>● government</li> </ul>
Moray (2000) model of sociotechnical system as a set of concentric circles	<ul style="list-style-type: none"> <li>● individual behavior, physical devices and physical ergonomics at the center of the system</li> <li>● Other layers include: team and group behavior, organizational and management behavior, legal and regulatory rules, and societal and cultural pressures</li> </ul>
Vincent (2003) model of work factors influencing clinical practice and adverse events	<ul style="list-style-type: none"> <li>● institutional factors</li> <li>● organization and management</li> <li>● work environment (e.g., staffing level, workload, design of equipment, administrative and managerial support)</li> <li>● team</li> <li>● individual staff member (e.g., knowledge, skills)</li> <li>● task</li> <li>● patient</li> </ul>

2. Social Exchange Theory 20%

- (1) What is Social Exchange Theory?
- (2) Please list basic assumptions of Social Exchange Theory.
- (3) Give a detailed real life applications in Social Exchange Theory.

Part B: 50%

3. Please give the following Term definition, meaning, and its application: 30%

- (1) Cognitive Learning Theory
- (2) Self-Efficacy Theory
- (3) Organization Change Theory

4. What's Cognitive dissonance theory? How to explain the widespread use of tobacco after countless campaigns on the harmful effects of smoking? What theory is the most common explanation for the smokers' persistent, self-destructive behavior? Please detailed answer above problem based on its theory and application. 20%