

※ 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. Multiple choice questions. Choose the one alternative that best completes the statement or answers the question. 20%

- (1) Groupthink in a decision-making environment occurs when
- group members accept the same timeframe for problem solving without complaining.
 - group members all accept a course of action without thinking for themselves.
 - group members all use the same analytic tools without having a choice.
 - group members are all working together for the firm's success.
- (2) The Web can play a significant role in making large amounts of information available to decision makers. Decision makers must be careful that this glut of information does not
- detract from the quality and speed of decision making.
 - take on the same credibility of internally-generated data.
 - increase their enthusiasm for data available on the web.
 - take on the same role as human intuition.
- (3) When representing data in a data warehouse, using several dimension tables that are each connected only to a fact table means you are using which warehouse structure?
- relational schema
 - dimensional schema
 - star schema
 - snowflake schema
- (4) In a local area network, a _____ only transmits data to the destination node.
- switch
 - port
 - hub
 - NIC
- (5) Network transmission speeds are measured in _____ per second.
- bits
 - bytes
 - Kbytes
 - Mbytes
- (6) Which of the following statements is FALSE?
- VPNs encode information using a process called encapsulation.
 - VPNs are less expensive than using a public network.
 - VPNs use public networks to enable communication.
 - A VPN is a type of extranet.
- (7) _____ is a form of electronic commerce that focuses on handling activities that take place within an organization.
- B2C
 - C2C
 - B2B
 - B2E

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(8) In the value chain model, the primary activity _____ includes receiving, storing, and distributing raw materials.

- a. operations
- b. procurement
- c. service
- d. inbound logistics

(9) A manager could use _____ to determine if an information system project is economically worthwhile.

- a. Gantt charts
- b. PERT diagrams
- c. cost-benefit analysis
- d. expert systems

(10) How is project planning distinct from general information systems planning?

- a. General information systems planning focuses on assessing the information systems needs of the entire organization.
- b. Project planning focuses on assessing the information systems needs of the entire organization.
- c. General information systems planning focuses on defining clear, discrete activities and the work needed to complete each activity within a single project.
- d. Project planning focuses on defining discrete activities needed to complete all projects.

2. Short answer questions and discussion. 30%

(1) What is the Amazon Mechanical Turk (MTurk)? How does it work? Design an application scenario and analyze the benefits that MTurk can offer.

(2) It has been reported that the use of spreadsheet software such as Google Sheets in the application of management science and operations research will be more popular than the use of flagship packages such as Lingo and Lindo. Do you agree to this? Provide your arguments.

(3) A number of surveys have highlighted the gap that routinely exists in organizations between their strategic plans and the execution of those plans. What are the reasons for this strategy gap? How to bridge the gap?

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3. How do individuals and organizations respectively gain benefits from telecommuting? (8 points)

4. While using a smart phone, what aspects in terms of security the user should be concerned? (6 points)

5. What are ethical and legal issues specific to e-commerce? (14 points)

6. What will be the problems when designing global IOS for the supply chain? (8 points)

Note: IOS refers to inter-organizational systems

7. According to the following table, produced from an empirical study, and the study findings: Firms should avoid completely outsourcing their entire IT function. Instead, firms benefit more in terms of reduction in non-IT operating costs when firms also have higher levels of complementary investments in internal IT, especially IT labor. Investments in internal IT systems can make business processes more amenable to outsourcing, and complementary investments in internal IT staff can facilitate monitoring of vendor performance and coordination with vendors.

(1) What will be the purpose(s) of the study? (5%)

(2) What will be the hypothesis (or hypotheses) proposed in this study? (5%)

(3) Draw a diagram to illustrate the relationship between IT Outsourcing and Non-IT Operating Costs (4%).

Table. Comparison of Non-IT Operating Costs Based on the Levels of IT Outsourcing and IT Labor Investments

(Note: Non-IT operating costs as a percentage of revenue. Number of observations is in parentheses.)

Non-IT Operating Costs		Investments in IT Labor	
		High (Above mean)	Low (Below mean)
IT Outsourcing	High (Above mean)	12.32 (129)	11.58 (135)
	Low (Below mean)	16.05 (150)	14.36 (486)

Reference: Han, K., & Mithas, S. (2013). Information technology outsourcing and non-IT operating costs: An empirical investigation. *MIS Quarterly*, 37(1), 315-331.