

國立成功大學
110學年度碩士班招生考試試題

編 號：245

系 所：資訊管理研究所

科 目：管理資訊系統

日 期：0203

節 次：第 3 節

備 註：不可使用計算機

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Part A.

A 1. Multiple choice questions. Choose the one alternative that best completes the statement or answers the question. 20%

- (1) When examining the analytic application of market basket analysis, which business question is not being asked?
A) What products should I combined to create a bundle offer?
B) Should I combined products based on slow-moving and fast-moving characteristics?
C) What customer is buying what product at what location?
D) Should I create a bundle from the same category or a different category line?
- (2) Big Data often involves a form of distributed storage and processing using Hadoop and MapReduce. One reason for this is:
A) centralized storage creates too many vulnerabilities.
B) the "Big" in Big Data necessitates over 10,000 processing nodes.
C) the processing power needed for the centralized model would overload a single computer.
D) Big Data systems have to match the geographical spread of social media.
- (3) What refers to the integration of digital information with the user environment in real time?
A) natural language processing
B) virtual reality
C) augmented reality
D) deep learning
- (4) What application is MOST dependent on text analysis of transcribed sales call center notes and voice conversations with customers?
A) finance
B) OLAP
C) CRM
D) ERP
- (5) What do voice of the market (VOM) applications of sentiment analysis do?
A) They examine customer sentiment at the aggregate level.
B) They examine employee sentiment in the organization.
C) They examine the stock market for trends.
D) They examine the "market of ideas" in politics.
- (6) Search engine optimization (SEO) is a means by which:
A) Web site developers can negotiate better deals for paid ads.
B) Web site developers can increase Web site search rankings.
C) Web site developers index their Web sites for search engines.
D) Web site developers optimize the artistic features of their Web sites.
- (7) Clickstream analysis is most likely to be used for all the following types of applications EXCEPT:

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- A) determining the lifetime value of clients.
- B) hiring new functional area managers.
- C) designing cross-marketing strategies across products.
- D) predicting user behavior.

(8) Which of the following is true of data-as-a-Service (DaaS) platforms?

- A) Knowing where the data resides is critical to the functioning of the platform.
- B) There are standardized processes for accessing data wherever it is located.
- C) Business processes can access local data only.
- D) Data quality happens on each individual platform.

(9) The method builds a model that summarizes the past behavior of shoppers, how they surf the Internet, what they were looking for, what they have purchased, and how much they like (rate) the products.

- A) collaborative filtering
- B) content-based filtering
- C) deep learning
- D) personalization

(10) IoT can provide more accurate information about specific customers buying decisions. For example, IoT can identify customer expectations and direct customers to specific brands. In relationship to how IoT can drive marketing opportunities this is referred to as:

- A) disruptive data collection.
- B) real-time personalization.
- C) environmental attribution.
- D) complete conversation path.

A2. Essay Questions

- (1) Describe, with a system framework, an application scenario in which descriptive, predictive, and prescriptive analytics can support decision-making in business organizations. You should answer the following questions. 10%
 - (a) What problem is being addressed?
 - (b) How this problem can be solved using these analytics, respectively?
 - (c) Identify the potential business values derived from the solution.
- (2) Risk management in global supply chains. 20%
 - (a) What is the so-called "black swan" phenomena for risk management in business?
 - (b) Illustrate at least three black swan events which brought big impacts to global supply chains in the past decade.
 - (c) It is argued that the disruption unleashed by the new coronavirus is different from black swan phenomena in that it has highlighted country risk at an unprecedented scale. Do you agree to it or not? You are asked to critique this argument based on the insightful evidences you have learned or observed from other resources.
 - (d) Illustrate and explain several potential actions to control the supply-chain risk as stated in question (c).

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Part B.

B1. Please explain the following terms:

1. Self-Efficacy (3%)
2. Influencer (3%)
3. Crowdsourcing (3%)
4. Distributed Denial-of-Service (DDoS) Attack (3%)
5. Ransomware (3%)

B2. What are the differences between Agile methodology and Waterfall methodology? (10%)

B3. Instead of HTTP, HTTPS has become the standard of secure communication over a computer network. Please explain what are a public key, a private key, and a digital certificate? And what are their roles in an HTTPS encryption process? (12%)

B4. Regarding edge computing, please answer the following questions.

1. What is edge computing? (4%)
2. When and why do we need edge computing? (4%)
3. What are the advantages and disadvantages of edge computing? (5%)