

113 學年度第 1 學期資訊管理研究所博士班資格考

科目:資訊科技與決策理論

Time : 2024/11/01 09:00-12:00

備註：請用原子筆，勿用鉛筆作答。

Format : ☐ OPEN BOOK ☒ CLOSED BOOK

1. **(18%)** How do different types of AI intelligences (mechanical, thinking, feeling) impact customer loyalty and brand perception in service settings (9%), and what are the implications for companies targeting various market segments? (9%)
2. **(15%)** Evaluate the role of empathy in AI-driven services, particularly focusing on "empathic AI." (7%) What are the potential benefits and challenges of implementing empathic AI in sectors requiring high emotional intelligence, such as healthcare? (8%)
3. **(20%)** Please explain why decision support systems can effectively support the decision making.
4. **(13%)** Please discuss the research published on Decision Support Systems (Elsevier) Journal regarding to the special issue " Explainable AI for Enhanced Decision Making".
5. **(10%)** The following table identifies the decision support framework. A DSS can support different levels of control and different types of decisions. The levels of control are Strategic planning, Managerial control, and Operational control. The types of decisions are Structured, Semistructured, and Unstructured.

(1) Please briefly explain each level of control and each type of decision. (6%)

(2) Furthermore, please check (V) one type of control and one type of decision for each task below. (4%)

| Task                           | Type of Control |    |    | Type of Decision |    |    |
|--------------------------------|-----------------|----|----|------------------|----|----|
|                                | OC              | MC | SP | ST               | SS | US |
| Accounts payable (For example) | V               |    |    | V                |    |    |
| 1. Budget preparation          |                 |    |    |                  |    |    |
| 2. Credit evaluation           |                 |    |    |                  |    |    |
| 3. Inventory control           |                 |    |    |                  |    |    |
| 4. New product planning        |                 |    |    |                  |    |    |
| 5. Production scheduling       |                 |    |    |                  |    |    |
| 6. Reward system design        |                 |    |    |                  |    |    |

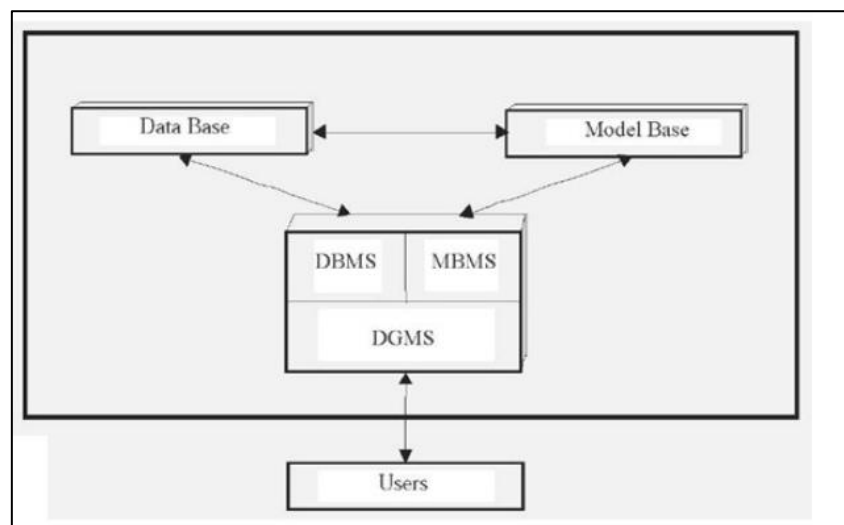
Reference:

Holsapple, C. W. and Whinston, A. B. (1996). *Decision Support Systems: A*

*Knowledge Based Approach*. Minneapolis, MN: West Publishing, Inc.

6. **(16%)** In a 1978 study, Keen and Scott Morton (1978) defined a development framework of decision support systems (DSS), as shown in Figure 1. Assuming you are using an enterprise resource planning (ERP) software to optimize production schedule, please:

- (1) Explain the attributes or functions of each component in the framework (8%),
- (2) Explain each linkage in the diagram (5%), and
- (3) Explain the differences between DSS and traditional management information systems (MIS) (3%).



Reference:

Keen, P.G.W. and Scott Morton, M.S. (1978). *Decision Support Systems: An Organizational Perspective*, Reading, MA: Addison-Wesley.

7. **(7%)** Please explain the following DSS characteristics and capabilities.

- (1) Business analytics (2%),
- (2) Web analytics (2%), and
- (3) Predictive analytics (3%).

Reference:

Turban, E., Aronson, J.E., Liang, T.P. (2005). *Decision Support Systems and Intelligent Systems*. Englewood Cliffs, NJ: Prentice-Hall.