

東吳大學 108 學年度碩士班研究生招生考試試題

系級	資訊管理學系碩士班	考試時間	100 分鐘
科目	計算機概論	本科總分	100 分

1. (20%) Please convert the following numbers into different number systems:
 - (1) $(0.35)_{10} = (?)_{16}$
 - (2) $(0.4632)_{10} = (?)_8 = (?)_2$
 - (3) $(1101100111101)_2 = (?)_{10}$
 - (4) $(316)_{10} = (?)_8 = (?)_2$

2. (20%) Please briefly define and explain the following terms:
 - (1) Logical data independence
 - (2) Physical data independence
 - (3) Entity integrity
 - (4) Master file vs. Transaction file

3. Identify the letters of the choices from the table that best match the phrases or definitions. (15%)
 - (1) A person, place, thing, or event for which data is collected and maintained
 - (2) A field in one table that must match a primary key value in another table in order to establish the relationship between the two tables
 - (3) A set of rules that avoids data inconsistency and quality problems
 - (4) A technique used by analysts to define relationships in more detail, after drawing an initial entity-relationship diagram
 - (5) Could help a consumer products firm identify potential customers based on their prior purchases

a. Unified Modeling Language (UML)	b. Cardinality
c. Foreign key	d. Data mining
e. Referential integrity	f. Subschema
g. Extended Binary Coded Decimal Interchange Code (EBCDIC)	h. Entity
i. Logical record	j. Logical storage

4. (25%) Please briefly define and explain the following terms:
 - (1) Crowdsourcing
 - (2) Social commerce
 - (3) Cloud computing
 - (4) Block chain
 - (5) Sharing economy

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5. (1) What is omnichannel retailing? Can you give an example? (10%)
(2) What is the difference between VR (Virtual Reality) and AR (Augmented Reality)? Give an example of the VR and AR commerce applications, respectively. (10%)