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| Chapter 1  1/ **Question 1**: Match the columns   |  |  | | --- | --- | | 1. Strategic information | A. OLTP applications | | 2. Information crisis | B. produce ad hoc reports | | 3. Information technology | C. explosive growth | | 4. Extract programs | D. despite lots of data | | 5. Data staging area | E. data cleaned and transformed | | 6. Executive information | F. users go to get information | | 7. Order processing | G. used for decision making | | 8. Data warehouse | H. environment, not product | | 9. Operational systems | I. for day-to-day operations | | 10. Information center | J. simple, easy to use | |
| **Your answer 1**:   |  |  | | --- | --- | |  | (A ... J) | | 1 | G | | 2 | C | | 3 | J | | 4 | B | | 5 | E | | 6 | D | | 7 | A | | 8 | H | | 9 | I | | 10 | F | |

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| 2/ **Question 2**: Why are operational systems not suitable for providing strategic information? Give three specific reasons and explain. |
| **Your answer 2**:  Operational systems not suitable for providing strategic information because:   * The data structure should be design for better frequently insert update delete operation. That structure design not suitable for complex querying * Performance is quite important. An operational system should not have low response time * Operational system should be optimize for serving multiple users frequently. Decision support systems don’t need to handle that much |

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| 3/ **Question 3**: Explain data granularity and how it is applicable to the data warehouse. |
| **Your answer 3**:  Data granularity is the level of detail considered in a model or decision making process. The greater the granularity, the deeper the level of detail. Granularity is usually used to characterize the scale or level of detail in a set of data.  Data granularity is applicable to the data warehouse because when a user queries the data warehouse for analysis, they usually starts by looking at summary data. So that, we need to keep data in data warehouse summarized at different levels. |

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| 4/ **Question 4**: A data warehouse is subject-oriented. What would be the major critical business subjects for a domestic hotel chain ? |
| **Your answer 4**:  The major critical business subjects for a domestic hotel chain are Rooms, Fairs, Booking, Branches,... |

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| Chapter 3  5/ **Question 5**: Describe any one of the options available to integrate ERP (Enterprise Resource Planning) with data warehousing. |
| **Your answer 5**:  ERP software coordinates the entire business process, and stores all the captured data in a common database, accessible to all the integrated applications of the ERP suite. Companies can achieve many cost savings and related benefits from the use of ERP for transaction processing and management reporting through the use of the ERP’s common database and integrated management reporting tools. |

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| 6/ **Question 6**: Indicate if true or false  A. Data warehousing helps in customized marketing.  B. It is as important to include unstructured data as structured data in a data warehouse.  C. ERP systems may be substituted for data warehouses.  D. Most of a corporation’s knowledge base contains unstructured data. |
| **Your answer 6**:   |  |  | | --- | --- | |  | (T/F) | | A | T | | B | F | | C | F | | D | T | |

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| Chapter 4  7/ **Question 7**: Explain the difference between the top-down and bottom-up approaches for building data warehouses. Do you have a preference? If so, why? |
| **Your answer 7**:  Difference between the top-down and bottom-up approaches for building data warehouses:  The top-down approach is to start at the enterprise-wide data warehouse, although possibly build it iteratively. On the other hand, the bottom-up approach is to start by building individual data marts, one by one.  I like the Bottom-Up approaches, because:   * It is faster and easier too implement * Less risk of failure * Inherently incremental; can schedule important data marts first * Allows my project team to learn and grow |

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| Chapter 5  8/ **Question 8**: Explain business dimensions. Why and how can business dimensions be useful for defining requirements for the data warehouse? |
| **Your answer 8**:  Even though the users cannot fully describe what they want in a data warehouse, they can provide you with very important insights into how they think about the business. They can tell you what measurement units are important for them. Each user department can let you know how they measure success in that particular department. The users can give you insights into how they combine the various pieces of information for strategic decision making |

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| 9/ **Question 9**: What are dimension hierarchies (for any subject that you know)? Give three examples. |
| **Your answer 9**:  A dimension hierarchy is a data construct used to group data into bins based on value ranges. A dimension hierarchy can contain multiple levels, each of which has its own set of bins. The bins in each lower level must roll up neatly into bins in higher levels.  For example,   * Grade of an subject at school:   + Lowest level: (0-3), (3-4), (4-5), (5-6.5), (6.5-8), (8-9), (9-10)   + Rollups: Bad (0-5), Average (5-6.5), Good (6.5-8), Excellent (8-10)   + Fail (0-5), Passed (5-10) * Family condition:   + Income: (0-10 milions), (10+ milions)   + Rich, Poor * Height   + (150-170cm), (170-180cm), (180cm+)   + Short, Tall |

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| Chapter 7  10/ **Question 10**: List five major functions and services in the data storage area. |
| **Your answer 10**:  5 major functions and services in the data storage area:   * Perform incremental loads at regular prescribed intervals. * Support loading into multiple tables at the detailed and summarized levels. * Provide backup and recovery for the data warehouse database. * Monitor and fine-tune the database. * Periodically archive data from the database according to preset conditions. |