# MIS5101 – Data Management and Warehousing
## Final Exam Study Guide

<table>
<thead>
<tr>
<th>Module &amp; Topic</th>
<th>Questions</th>
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<tbody>
<tr>
<td>Introduction</td>
<td><strong>Blog Discussion:</strong> What are the pros and cons of using PowerPoint to organize and disseminate information?</td>
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<tr>
<td>Data Access</td>
<td><strong>Discussion Questions:</strong></td>
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<td></td>
<td>• What is another example you can think of with a trade-offs between information access and accuracy? When is it better to favor access? When is it better to favor accuracy?</td>
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<td>• How would you describe the roll-out scenarios in terms of data and information.</td>
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<tr>
<td>Data Quality</td>
<td><strong>Blog Discussion:</strong> As there’s more data available in organizations, there’s also more bad data. What kind of problems have you run into before with missing, incorrect, or incomplete data? What do you think can be done to improve data quality?</td>
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<td><strong>Discussion Questions:</strong></td>
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<td></td>
<td>• Consider an organization you work for now (or have worked for recently). How would you describe its organizational memory?</td>
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<td></td>
<td>• How do senior management needs for data typically differ from the needs of the person who entered the data?</td>
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<td>• What are typical challenges in integrating information?</td>
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<td>Digital Information</td>
<td><strong>Blog Discussion:</strong> What kinds of information are you willing to pay for? When do you expect to pay for information and when do you expect to get it for free? How do you decide if you got your money’s worth?</td>
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<td>Goods</td>
<td><strong>Discussion Questions:</strong></td>
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<td>• Based on the information provided in the case, do you think SKOLAR has a viable business model? Why or why not? What additional information would you like to know to make a better determination?</td>
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<td>• What are unique factors to consider in the market for digital information goods?</td>
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<td>Data Integration</td>
<td><strong>Blog Discussion:</strong> How do you measure success or failure?</td>
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<td>Data-Driven Management</td>
<td><strong>Discussion Questions:</strong></td>
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<td>• How do you rate the performance of Intermountain? In what ways do they effectively collect and analyze information? Why doesn’t everyone do it this way?</td>
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<td>• How would you describe Intermountain’s systems in relation to data, information, and knowledge management? What is the relationship between these three levels of processes?</td>
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<td>• What is Taylorism? Is Intermountain an example of Taylorism?</td>
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<td>• What is difference between efficacy, effectiveness and efficiency?</td>
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<td>Data Analytics</td>
<td><strong>Blog Discussion</strong></td>
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<tr>
<td></td>
<td>• The word “analytics” is used in many different ways. What does it mean to you?</td>
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<td><strong>Discussion Questions</strong></td>
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<td></td>
<td>• What did you learn by using Google analytics?</td>
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<td>Knowledge Management</td>
<td><strong>Blog Discussion:</strong> What is an example of a community of practice that you are a member of? In what ways do you benefit from being a member?</td>
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<td><strong>Discussion Questions:</strong></td>
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<td>• What are the most important knowledge-management challenges faced by Danone? What do they need to do well to succeed?</td>
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<td>• In what ways could Danone make greater use of IT for knowledge management?</td>
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<td>• What is the difference between process and practice? How they relate?</td>
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<td>• What is relationship between knowledge management and communities of practice?</td>
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<td>Business Intelligence</td>
<td><strong>Blog Discussion</strong></td>
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<tr>
<td>Introduction to Business</td>
<td>• What is an example of how business intelligence can aid an organization you are familiar with? What kinds of challenges are there in realizing the value?</td>
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<td>Intelligence</td>
<td><strong>Discussion Questions:</strong></td>
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<td>• What does data transparency mean? What is it intended to accomplish?</td>
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<td>• Has data.gov met its objectives yet? If not, is on track to meet them? What needs to be done moving forward to enhance the data.gov initiative?</td>
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<td>• What lessons can you apply from data.gov to other organizations or industries?</td>
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| Business Intelligence         | **Blog Discussion**                                                      |
| Data Visualization            | • What makes a good visualization?                                       |

| Business Intelligence         | **Discussion Questions**                                                 |
| Outcome Measures              | • If you ran an in-vitro fertilization clinic what are 2-3 key metrics you would want to track and why? Are these the same metrics a potential IVF customer would care about? Are they the same metrics that a national standards body should focus on? |
|                               | • What makes a good outcome measure?                                     |

| Business Intelligence         | **Discussion Questions**                                                 |
| Using SQL                     | • What is SQL and what is NOSQL?                                         |
|                               | • Why is SQL so popular?                                                 |

| Business Intelligence         | **Blog Discussion**                                                      |
| Performance Management        | • At the Specialty Equipment Market Association website they have a free training program available from Harvard Business School on [Performance Measurement](#). Pick one of the modules (e.g., Overview, KPIs, Systems) from the Learn menu on the left hand side. Summarize a key insight from the material. How does it relate to what our guest speaker had to say? |

| Business Intelligence         | **Blog Discussion**                                                      |
| Reporting Results             | • What is your experience with ad hoc queries? What limitations have you run into in when “asking” questions of the data held in systems that you interact with? What kinds of things do you think systems designers could do to make ad hoc access easier for users? |
|                               | **Discussion Questions**                                                 |
|                               | • When would you prefer to have a “data dump” to analyze data with Excel pivot tables and when would you prefer to use Access queries? |

| Information Security          | **Blog Discussion**                                                      |
| Audit and Recovery            | • If the systems you worked with regularly were put “on trial” how easy would it be to replicate what a particular user saw in the system on a specific day? |
|                               | • If your primary personal or work computer crashed, how easily could you pick up the pieces? Would you be able to get back to work easily? What’s your backup plan? |

| Information Security          | **Discussion Questions**                                                 |
| Security, Privacy and Data    | • What are some best practices for leveraging data as an asset while also protecting privacy? |
| Mining                        |                                                                         |