



Uva Wellassa University of Sri Lanka
Faculty of Science & Technology
Department of Computer Science & Technology
IIT Degree Programme
Year IV Semester I
End Semester Examination – February/March 2012



IIT412-2 Enterprise Modelling

Instructions

Answer eight questions out of ten. Each question carries equal mark.

No. of questions: Ten (10)

No. of pages: Two (02)

Time: Two hours (2 hr)

Total marks allocated: 40%

Index No:

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1. Explain what performance metrics are.
 - (i) What business-related performance metrics are, and what IT-related performance metrics are.
 - (ii) What an organisation can do with performance metrics in order to be able to get more value from technology it owns?

 2. Why is it impossible to evaluate whether an organisation is doing well or not by using financial indicators alone? Which other indicators are needed?

 3. In the context of the Balanced Scorecard, explain what it means that a certain company is unbalanced.
 - (i) What this lack of balance may result in?
 - (ii) What to do to make the company balanced?
 - (iii) What to do to prevent the loss of balance?

 4. To be manageable for different stakeholders, a complex architecture can be represented as a set of viewpoints.
 - (i) Explain what these viewpoints are.
 - (ii) What are characteristics of a well constructed set of viewpoints and what are characteristics of a badly constructed set of viewpoints?

- (iii) If an organisation has N stakeholders in total, what can you say about the required number of different viewpoints?
5. Give short answers to the following questions about the Zachman framework:
- Where the Zachman framework is applied?
 - Why many authors don't include the row number 6 into the framework?
 - How individual cells in the framework are related to each other?
6. Give short answers to the following questions about the Zachman framework:
- Why adding or removing rows or columns are not allowed within the framework?
 - Relationships between which cells of the framework show alignment between IT and business?
 - What the answer to the question (ii) tells you about possible alignment strategies?
7. Give short answers to the following questions about the Zachman framework:
- When applying the Zachman framework to a particular enterprise, how will you identify gaps and redundancies in descriptive representations of this enterprise?
 - Why the Zachman framework is two-dimensional? Why single dimension is not enough, and why it doesn't have more than two dimensions?
 - What can you tell about the order of the rows and columns in the framework?
8. Imagine a railway transportation system. Give one example for each of the following life cycles associated with the system:
- Project life cycle,
 - Product life cycle,
 - Programme life cycle,
 - System procurement life cycle,
 - Technology life cycle,
 - Equipment life cycle,
 - Business life cycle
- How each of these life cycles impacts each of the others? Describe interactions between different lifecycles in the system.
9. What is the purpose of an architecture view quagmire? Which UML diagrams can an architecture view quagmire contain?
10. Draw a UML diagram of ontology for any enterprise of your choice. Write definitions of all the key elements of your enterprise and the relationships between them.