

# New Software Development Paradigms Exam Memo

Open book  
100 marks  
Three hours

## Question 1

Using an example of your choice, explain iterative software development.

[10]

## Question 2

You are the Scrum master for a team that are building a new music sharing application. Give examples of what will the different Scrum Events and Artifacts will consist of.

[20]

## Question 3

Alan Gray Financial Services had a system outage for four days that costed them a lot of good will and new business. They have hired you to advise them on how to make their system more robust to failure. Use practical examples to tell the management what you will implement to make the systems more reliable

[18]

## Question 4

A deployment pipeline is an automated manifestation of the process for getting software from version control into the hands of the users.

- a) Using an example of a software development project of your choice describe how you will implement a DevOps pipeline. Focus on the tools and processes. Use the work of Humble (Humble & Farley, 2011). to guide your thinking

[14]

## Question 5

You have been asked to interview a Design Thinking expert for your company. What characteristics would you look for and what questions would you ask to see if they have those characteristics.

[10]

## Question 6

You have been appointed as an advisor to the board of Nedbank. They have contracted you to give recommendations on the use of non-financial data in their organisation and to augment it with practical examples.

[20]

## Question 7

Contrast and compare the Rational Design Paradigm Meta-narrative with that of the Empirical Design Paradigm Metanarrative

[8]