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| **STUDENT NAME AND SURNAME: .................................................................... STUDENT NUMBER: ..................................**  **LECTURER SURNAME: ……………………………………..... CLASS GROUP 3 (......)** | | | |
| **SUBJECT**  **INFORMATION SYSTEMS III MODULE A**  **PROJECT MANAGEMENT** | **DATE**  4 JUNE 2012 | **DURATION**  3 HOURS | **TOTAL MARKS**  100 |



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| **FACULTY OF INFORMATICS & DESIGN** |

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| **COURSE:** NDIPIT: INFORMATION TECHNOLOGY |
| **EXAMINER:** MR E FRANCKE  **MODERATOR:** Mr E RUHODE  **EXTERNAL MODERATOR:** MR A BERE |

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| **SPECIAL INSTRUCTIONS:**   * **tHIS IS not AN OPEN BOOK EXAM.** * **Electronic copies of the video clip are not allowed into the exam venue.** * **Section A is based on the video clip.** * **Answer all the questions in the answer book.** * **Write your lecturer’s name on the top right hand corner of the answer book.** * **Hand in the question paper inside the answer book.**  REQUIREMENTS:  * **Calculator (Cellphones or other intricate memory/storage calculators and related devices are not permitted)** |

## SECTION A (Based on the Video Clip) - 30 Marks

QUESTION 1

How is this video clip an example of an IT Project? (5)

QUESTION 2

Propose a name for the type of technology that is illustrated in the video

clip. (2)

QUESTION 3

Construct a model that would best describe this technology.

You may illustrate this by way of an annotated drawing or a narrative explanation. (8)

QUESTION 4

Based on what you know about IT Project Management, what would be a suitable scope for this project? (5)

QUESTION 5

“A work breakdown structure is an extremely valuable and important project management tool. It sets the foundation for the rest of the project planning.”

In light of this, copy and complete the work breakdown structure for the project which you have identified in the video clip by filling in the missing elements as listed in the template below. (10)

……………………..

……months R…………..

……………………..

……months R…………..

……………………..

……months R…………..

……………………..

……months R…………..

……………………..

……months R…………..

……………………..

……months R…………..

**SECTION B - 40 Marks**

QUESTION 6

In her book, Information Technology Project Management, 6th Edition Kathy Schwalbe identifies five distinct processes involved with Project Scope Management. Name and describe these processes involved with Project Scope Management (10)

QUESTION 7

The following formulae may be relevant to this question:

**CV = EV – AC CPI = EV /AC SPI = EV / PV**

**CV = BCWP – ACWP CPI = BCWP / ACWP EAC = BAC / CPI**

**EAC = AC + ETC EAC = AC + (BAC - EV) CV % = CV / EV**

**SV = EV – PV CV % = CV / BCWP CPI = EV / AC**

**ETC = EAC – AC VAC = BAC - EAC**

Read the following scenario and answer the questions based on this case study:

The year is 2015 and times are good in South Africa. The business environment is vibrant and the economy is strong. Big businesses are committing huge amounts of capital and resources to implement new strategies, establish new capabilities, and open new markets. It was no different at PutCo, a software house specializing in the development of Customer Relationship Management (CRM) packages.

Vuyo walked into work on Monday morning like any other. He dropped his briefcase in his office, grabbed a cup of coffee and headed down the hall to meet with his boss, Brandon, about one of the company's potential IT projects. Although Vuyo had substantial experience, he had only recently joined PutCo after graduating with an MTech in IT at CPUT.

Brandon and Vuyo got to the topic at hand. " Vuyo, I'll get straight to the point. I need you to take over the CRM project from Paul." Brandon continued, "We hired you because of your significant IT project management expertise. I know that you've project managed many more difficult projects than this." Over an hour later, Vuyo emerged from Brandon's office and set out to learn more about the challenge that Brandon had posed to him.

Vuyo had previously seen more than his fair share of difficult projects; some he managed well while others had spun hopelessly out of control. He would have to make a success of this one…

*Adapted from…* [*http://www.projectsmart.co.uk/a-tale-of-two-projects.html*](http://www.projectsmart.co.uk/a-tale-of-two-projects.html)

* 1. Help Vuyo plot the project baseline for this CRM project based on the following monthly expenses which will take 12 months to complete. (20)

*Make use of the Question Seven Graph Template provided, to plot your baseline.*

|  |  |
| --- | --- |
| **Month** | **Monthly Cost** |
| January | R 50,000.00 |
| February | R 150,000.00 |
| March | R 350,000.00 |
| April | R 425,000.00 |
| May | R 525,000.00 |
| June | R 650,000.00 |
| July | R 725,000.00 |
| August | R 975,000.00 |
| September | R 1,800,000.00 |
| October | R 2,050,000.00 |
| November | R 1,750,000.00 |
| December | R 550,000.00 |

* 1. Calculate and plot the project’s performance on the chart above when after 5 months, you have completed 10 % of the project at a total expense of R2,000,000. The planned completion should have been 15.5 %. (5)
  2. Calculate and plot the variance at completion on the chart if the project continues to run in this way after the fifth month. (5)

**SECTION C - 30 Marks**

QUESTION 8

The following table displays information for a software development project for which you are the project manager:

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity** | **Description** | **Predecessor** | **Duration (Days)** |
| A | Develop Project Charter | None | 5 |
| B | Network Configuration | A | 10 |
| C | Hardware Procurement | A | 10 |
| D | Hiring | A | 20 |
| E | Verify and Validate User Requirements | A | 15 |
| F | Create detailed Scope Statement | A | 10 |
| G | Systems Customisation | C, D, E, F | 5 |
| H | Implementation and Testing | B, G | 10 |
| I | User Training | H | 5 |
| J | System Handover | I | 5 |

Using the following node layout:

|  |  |  |
| --- | --- | --- |
| ES | ID | EF |
| S | Descr | |
| LS | D | LF |

Where:

ES = Early Start; EF = Early Finish; LS = Late Start; LF = Late Finish;

ID = Activity; D = Duration; Descr = Description

* 1. Draw a complete network activity diagram (arrow-on-arrow), showing all values in each node. (25)
  2. Identify the critical path. (1)

8.3 You suspect that your sponsor will not agree to the duration of your project. Explain how you would shorten the project schedule. (4)

**-------------------------------End of Examination Paper-------------------------------**