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Submitted: 4/24/2019 11:49:00 AM

Submitted By: 2289258Z@student.gla.ac.uk

Significance: 100 %

Sources included in the report:

MengyuGe_2289225_2016200301029_ChanggangZheng_2289258_2016200302027.pdf.pdf (D50994494)

Instances where selected sources appear:

1

1 UESTC3031 - Engineering Project Management & Finance (2018 – 2019 Semester 2) Break-Even Analysis and Project Plan Answer File Date Issued to Students: 18 th March 2019 / Monday Deadline / Submission Date: 26 th April 2019 / Friday Submission: via Moodle

Submission Instructions: • You must submit in ONE pdf document (not a zipped file, not two times, not in a word document) both the break-even analysis report and the essay assignment that accompanies it. Please make sure you start each of the above two on a new page to avoid confusion. You already have the instructions in the lecture notes and have been provided the assignment answering file that must be used. • You must prepare this assessment in pairs/groups of 2. You must clearly indicate in the file name and in the document the student name's and IDs in the form Student1_GUID_UESTCID_Student2_GUID_UESTCID.pdf and inside the documents you will list a table with the student's names, GUIDs, and UESTCIDs of your group members so that we know who submitted with whom. • You must submit a plagiarism declaration and your submission will go through plagiarism check. • No late submissions will be allowed in the Moodle so if you don't submit you will get a zero for this complete assessment. • This is a SUMMATIVE assessment (i.e. marked assessment). • Each of you must submit individually the assessment prepared in groups so we must receive (via Moodle) 2 identical submissions in the system i.e. one for each student member of the group. -- Student1 Student2 Name: _____Ge Mengyu_____ Name: _____Zheng Changgang_____ UESTC # ___2016200301029____ UESTC # _____2016200302027_____ UoG # _____2289225G_____ UoG # _____2289258Z_____ Remember to Complete and Sign the Declaration Form on Page 2.

2

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Break-Even Analysis and Project Plan Answer File

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YES

Fully referenced (including page numbers) and used inverted commas for all text quoted from books, journals, web etc. (Please check with the Department which referencing style is to be used)

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Mengyu Ge

4 Break-Even Analysis (Report [15%]) 1. Convert all component prices into UK pounds (£) using an exchange rate of £1 (UK Pound) = $1.30 (US Dollar). [5]

Based on the equation £1 (UK Pound) = $1.30 (US Dollar). We could calculate the conversion relation directly and get the table as follow CH340G USB Quantity

Price of Each(US dollar) Price of Each(Pound) 1 0.3609 0.2776 10 0.2585 0.1988 30 0.2402 0.1848 100 0.2201 0.1693 500 0.2128 0.1637 PCB Cost Quantity Price of Each(US dollar) Price of Each(Pound) 5 4.95 3.8077 10 5.55 4.2692 50 30.68 23.6 100 58.11 44.7 500 212.56 163.51 1000 409.78 315.22 2500 881.14 677.8 5000 1537.62 1182.78 Assembly costs Quantity Price of Each(US dollar) Price

of Each(Pound) 5 220 169.23 50 554 426.15 100 727 559.23 500 1079 830 1000 1734 1333.85 2500 2217 1705.38 5000 3261 2508.56

5 2.

Calculate the variable costs to manufacture a quantity of 8 sample boards (so the customer can check your quality). [20]

Component Quantity/

pe r board Number of

boards

Total

quantity Price of each Total

price ATMega328 1 8 8 2 16 CH340G 1 8 8 0.2776 2.2208 LM1117-3.3 1 8 8 0.618 4.944 LM1117-5.0 1 8 8 0.618 4.944 Crystal, 12MHz- HC49 Package 1 8 8 0.35 2.8 Crystal, 16MHz-HC49 Package 1 8 8 0.35 2.8 LED1 Red, SMT 1 8 8 0.0926 0.7408 LED2, Red, SMT 1 8 8 0.0926 0.7408 C1, C2 2 8 16 0.297 4.752 C3, C4, C5, C6 4 8 32 0.0214 0.6858 R1, R2, R3, R4, R7, R8 6 8 48 0.0095 0.456 SWT_1 1 8 8 0.127 1.016 CONN_1 1 8 8 1.51 12.08 CONN_2 1 8 8 0.314 2.512 SIP_1 2 8 16 0.708 11.328 SIP_2 1 8 8 0.75 6 SIP_3 1 8 8 0.75 6 SIP_4 1 8 8 0.75 6 PCB_1 1 8 8 4.2692/ten 4.2692 ASSY_1 1 8 8 169.23/five 338.46 Total 428.7494

6 3. Using the

component cost figures provided, calculate the cost to manufacture the following quantities: 100, 1000, 5000 boards. [20] Component Quantity/

pe r board Number of

boards Total

quantity Price of each Total

price ATMega328 1 100 100 1.03 103 CH340G 1 100 100 0.1693 16.93 LM1117-3.3 1 100 100 0.45 45 LM1117-5.0 1 100 100 0.45 45 Crystal, 12MHz- HC49 Package 1 100 100 0.147 14.7 Crystal, 16MHz-HC49 Package 1 100 100 0.147 14.7 LED1 Red, SMT 1 100 100 0.0478 4.78 LED2, Red, SMT 1 100 100 0.0478 4.78 C1, C2 2 100 200 0.235 47 C3, C4, C5, C6 4 100 400 0.0134 5.36 R1, R2, R3, R4, R7, R8 6 100 600 0.0041 2.46 SWT_1 1 100 100 0.127 12.7 CONN_1 1 100 100 0.921 92.1 CONN_2 1 100 100 0.252 25.2 SIP_1 2 100 200 0.5658 113.16 SIP_2 1 100 100 0.5658 56.58 SIP_3 1 100 100 0.5658 56.58 SIP_4 1 100 100 0.5658 56.58 PCB_1 1 100 100 44.7/100 44.7 ASSY_1 1 100 100 559.23/100 559.23 Total 1320.54

Component Quantity/

per board Number of

boards

Total

quantity Price of each Total

price ATMega328 1 1000 1000 0.54 540 CH340G 1 1000 1000 0.1637 163.7 LM1117-3.3 1 1000 1000 0.24 240 LM1117-5.0 1 1000 1000 0.24 240 Crystal, 12MHz- HC49 Package 1 1000 1000 0.086 86 Crystal, 16MHz-HC49 Package 1 1000 1000 0.086 86 LED1 Red, SMT 1 1000 1000

5

0.0368 36.8 LED2, Red, SMT 1 1000 1000 0.0368 36.8 C1, C2 2 1000 2000 0.196 392 C3, C4, C5, C6 4 1000 4000 0.0062 24.8 R1, R2, R3, R4, R7, R8 6 1000 6000 0.0026 15.6

7 SWT_1 1 1000 1000 0.073 73 CONN_1 1 1000 1000 0.895 895 CONN_2 1 1000 1000 0.158 158 SIP_1 2 1000 2000 0.43413 868.26 SIP_2 1 1000 1000 0.43413 434.13 SIP_3 1 1000 1000 0.43413 434.13 SIP_4 1 1000 1000 0.43413 434.13 PCB_1 1 1000 1000 315.22/1000 315.22 ASSY_1 1 1000 1000 1333.85 1333.85 Total 6807.42

Component Quantity/

pe r board Number of

boards

Total

quantity Price of each Total

price ATMega328 1 5000 5000 0.54 2700 CH340G 1 5000 5000 0.1637 818.5 LM1117-3.3 1 5000 5000 0.232 1160 LM1117-5.0 1 5000 5000 0.232 1160 Crystal, 12MHz- HC49 Package 1 5000 5000 0.083 415 Crystal, 16MHz-HC49 Package 1 5000 5000 0.083 415 LED1 Red, SMT 1 5000 5000 0.0368 184 LED2, Red, SMT 1 5000 5000 0.0368 184 C1, C2 2 5000 10000 0.095 950 C3, C4, C5, C6 4 5000 20000 0.0055 110 R1, R2, R3, R4, R7, R8 6 5000 30000 0.0026 78 SWT_1 1 5000 5000 0.067 335 CONN_1 1 5000 5000 0.895 4475 CONN_2 1 5000 5000 0.056 280 SIP_1 2 5000 10000 0.3925 3925 SIP_2 1 5000 5000 0.3925 1968.15 SIP_3 1 5000 5000 0.3925 1968.15 SIP_4 1 5000 5000 0.3925 1968.15 PCB_1 1 5000 5000 1182.78 1182.78 ASSY_1 1 5000 5000 2508.46 2508.46 Total 26785.19

8 4.

You have agreed a deal with your component suppliers, PCB manufacturers, and assembly operation that the total variable cost per board is £7.75 for all volumes between 0 and 5,000 boards. If your company has Fixed Costs of £17,500 and a selling price of £13.50, what is the Margin of Safety if you produce 4,000 boards? Draw a graph to illustrate this point. [30]

Break even

point = FixedCosts Selling price − Variable costs = 17500 13.5 − 7.75 = 3043.4783

Margin of Safety = Existing sales − = 4000 − 3043.4783 = 956.5217 5.

What does the company profit in the above example

when you produce 4000 boards? [5] Profit = Earning − Cost = $13.5 \times 4000 − (17500 + 7.75 \times 4000) = 5500(£)$ 6. Your sales manager advises you that a new customer is willing to pay £20.00 per board but only for a maximum order of 2000 boards. How much profit or loss could you make on this order? Will there be a Margin of Safety in this case? If yes, calculate it. [20]

9

Profit = Earning − Cost = 20 × 2000 − (17500 + 7.75 × 2000) = 7000(£) So, it will profitable and profit

is £7000. = − = 17500 20 − 7.75 = 1428.5714 Margin of Safety = Existing sales − = 2000 − 1428.5714 = 571.4286

Project Plan (Essay Assignment [10%]) 1. Project team members and their respective responsibilities. [5]

Our team follows a Matrix Structure, which has functional and divisional structures. Under this structure, employees into project teams containing people from different functional areas of the business, which includes area of R&D and Product Line Supply Chain Management, Sales and Service and Finance; At the beginning of this project, I choose team members based on the needs of the project, with the teams benefiting from the different viewpoints and skill levels. In this team there are basically four team members, a team member is responsible for design and manufacture from the department from R&D and product line, a team member in charge of manufacturing intermediate and final products from the Supply Chain Management department, a team member need to contact with the customers from department of Sales and Services and with a team member to ensure the cash flow and the current funds from the Department of Finance. 2.

Clear purpose of your project in terms of the Statement of Work. [10]

10

At the

customer's request, our team needs to manufacture a specified number of micro-controllers and deliver them to the user's designated place on time. The goal of the project is to bring the best benefits to the team and the customer and to provide the highest quality products with as little expenditure as possible. In this project, our team is responsible for providing micro-controllers to our customers. During the implementation of the project, our team is responsible for a series of tasks from designing components, comparing prices and purchasing materials and components, assembling samples, testing samples, mass production, packaging, and delivery. To ensure the smooth progress of the project, our team is also obligated to perform SOW analysis, Project Network Diagram analysis and Gantt Chart analysis on the characters. In the end, our team will be responsible for completing the number of parts required by the customer within the specified time limit and sending it to the location that the customer needs and ensuring that the customer knows the progress throughout the project. The customer is responsible for providing detailed micro-controller design metrics and a list of potentially selectable parts. After our team has completed the design and confirmed the plan, In principle, customers are not allowed to put forward additional design indicators and parts selection requirements. They are supposed to pay more for the changes If they want to further update the design. From the current design plan, we will spend 30 days to complete the design, including the manufacture and delivery

of the entire product. Our initial preparation will cost 4 days which is shown in our project Gantt Chart. Some details about the components are also shown in the appendix. For our team, as long as we follow the design indicators and do not exceed the budget, the corresponding number of microprocessors will be delivered to the designated location on time. The on-site display can ensure that the customer could be in normal use for 16 days. If there is no design and assembly failure, it shows that our team has successfully fulfilled the contract. The customer is obliged to pay the corresponding fee at the designated time node. Among them, the customer's funds are not in place, the parts specified by the customer are not up to standard, and the time delay caused by the abnormal use of the customer and the failure of the project due to improper delivery and component damage is not the responsibility of our team. In this case, the customer still needs to pay the extraordinary expenditures.

11 3.

Work Breakdown Structure with clear emphasis on the work packages. [10]

Under this

Overall design task, we have five sub-tasks, including project establishment, project planning, design & production, delivery and presentation, and project summary. There are also lists of tasks under these five sub-tasks. 4.

Demonstrate these interdependencies and interlink between various tasks with the help of a Project Network Diagram. [15] Consider: • there was a national holiday declared on the day after task 12 completion. • the weekends as a normal work day like any other day of the week. • the diagrams / figures to be hand-drawn with a ruler.

The leftmost number in a box represents the relative start date, the middle number represents the task number, and the rightmost number represents the completion date.

12 5.

Based on your Project Network Diagram above, how many days did it take to complete this project? Demonstrate with the help of the critical path. [5]

Based on our Project Network Diagram

above, we could

see that it will take a total of 30 days to complete the project. In the figure, the start date in each box is equal to the end date in the previous box, and the end date in the same box is equal to the start date plus the duration of the task. It is noteworthy that after the completion of task12, it is the 19th day. Since there is a one- day holiday, the start date of task13 and 15 is the 20th day. In other cases, the weekend is treated as work day so we do not consider the weekend as a holiday. 6.

Timeline

of your project with the help of Gantt Chart clearly listing all the tasks. The chart must be hand-drawn with a ruler. [5]

13 ["748

words"]

The final word count must be included thus ["7xx words"] at the end of your article. This final statement will not be included in the word count.

Hit and source - focused comparison, Side by Side:

Left side: As student entered the text in the submitted document.
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1	100%

1 UESTC3031 - Engineering Project Management & Finance (2018 – 2019 Semester 2) Break-Even Analysis and Project Plan Answer File Date Issued to Students: 18 th March 2019 / Monday Deadline / Submission Date: 26 th April 2019 / Friday Submission: via Moodle

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of Each(Pound) 5 220 169.23 50 554 426.15 100 727 559.23 500 1079 830 1000 1734 1333.85 2500 2217 1705.38 5000 3261 2508.56

5 2.

Calculate the variable costs to manufacture a quantity of 8 sample boards (so the customer can check your quality). [20]

Component Quantity/

pe r board Number of

boards

Total

quantity Price of each Total

price ATMega328 1 8 8 2 16 CH340G 1 8 8 0.2776 2.2208 LM1117-3.3 1 8 8 0.618 4.944 LM1117-5.0 1 8 8 0.618 4.944 Crystal, 12MHz- HC49 Package 1 8 8 0.35 2.8 Crystal, 16MHz-HC49 Package 1 8 8 0.35 2.8 LED1 Red, SMT 1 8 8 0.0926 0.7408 LED2, Red, SMT 1 8 8 0.0926 0.7408 C1, C2 2 8 16 0.297 4.752 C3, C4, C5, C6 4 8 32 0.0214 0.6858 R1, R2, R3, R4, R7, R8 6 8 48 0.0095 0.456 SWT_1 1 8 8 0.127 1.016 CONN_1 1 8 8 1.51 12.08 CONN_2 1 8 8 0.314 2.512 SIP_1 2 8 16 0.708 11.328 SIP_2 1 8 8

1000 1000 0.24 240 Crystal, 12MHz- HC49 Package 1 1000 1000 0.086 86 Crystal, 16MHz-HC49 Package 1 1000 1000 0.086 86 LED1 Red, SMT 1 1000 1000 0.0368 36.8 LED2, Red, SMT 1 1000 1000 0.0368 36.8 C1, C2 2 1000 2000 0.196 392 C3, C4, C5, C6 4 1000 4000 0.0062 24.8 R1, R2, R3, R4, R7, R8 6 1000 6000 0.0026 15.6

7 SWT_1 1 1000 1000 0.073 73 CONN_1 1 1000 1000 0.895 895 CONN_2 1 1000 1000 0.158 158 SIP_1 2 1000 2000 0.43413 868.26 SIP_2 1 1000 1000 0.43413 434.13 SIP_3 1 1000 1000 0.43413 434.13 SIP_4 1 1000 1000 0.43413 434.13 PCB_1 1 1000 1000 315.22/1000 315.22 ASSY_1 1 1000 1000 1333.85 1333.85 Total 6807.42 Component Quantity/pe r board Number of boards Total quantity Price of each Total price ATMega328 1 5000 5000 0.54 2700 CH340G 1 5000 5000 0.1637 818.5 LM1117-3.3 1 5000 5000 0.232 1160 LM1117-5.0 1 5000 5000 0.232 1160 Crystal, 12MHz- HC49 Package 1 5000 5000 0.083 415 Crystal, 16MHz-HC49 Package 1 5000 5000 0.083 415 LED1 Red, SMT 1 5000 5000 0.0368 184 LED2, Red, SMT 1 5000 5000 0.0368 184 C1, C2 2 5000 10000 0.095 950 C3, C4, C5, C6 4 5000 20000 0.0055 110 R1, R2, R3, R4, R7, R8 6 5000 30000 0.0026 78 SWT_1 1 5000 5000 0.067 335 CONN_1 1 5000 5000 0.895 4475 CONN_2 1 5000 5000 0.056 280 SIP_1 2 5000 10000 0.3925 3925 SIP_2 1 5000 5000 0.3925 1968.15 SIP_3 1 5000 5000 0.3925 1968.15 SIP_4 1 5000 5000 0.3925 1968.15 PCB_1 1 5000 5000 1182.78 1182.78 ASSY_1 1 5000 5000 2508.46 2508.46 Total 26785.19

8 4. You have agreed a deal with your component suppliers, PCB manufacturers, and assembly operation that the total variable

0.75 6 SIP_3 1 8 8 0.75 6 SIP_4 1 8 8 0.75 6 PCB_1 1 8 8 4.2692/ten 4.2692 ASSY_1 1 8 8 169.23/five 338.46 Total 428.7494

6 3. Using the

component cost figures provided, calculate the cost to manufacture the following quantities: 100, 1000, 5000 boards. [20] Component Quantity/

pe r board Number of

boards Total

quantity Price of each Total

price ATMega328 1 100 100 1.03 103 CH340G 1 100 100 0.1693 16.93 LM1117-3.3 1 100 100 0.45 45 LM1117-5.0 1 100 100 0.45 45 Crystal, 12MHz- HC49 Package 1 100 100 0.147 14.7 Crystal, 16MHz-HC49 Package 1 100 100 0.147 14.7 LED1 Red, SMT 1 100 100 0.0478 4.78 LED2, Red, SMT 1 100 100 0.0478 4.78 C1, C2 2 100 200 0.235 47 C3, C4, C5, C6 4 100 400 0.0134 5.36 R1, R2, R3, R4, R7, R8 6 100 600 0.0041 2.46 SWT_1 1 100 100 0.127 12.7 CONN_1 1 100 100 0.921 92.1 CONN_2 1 100 100 0.252 25.2 SIP_1 2 100 200 0.5658 113.16 SIP_2 1 100 100 0.5658 56.58 SIP_3 1 100 100 0.5658 56.58 SIP_4 1 100 100 0.5658 56.58 PCB_1 1 100 100 44.7/100 44.7 ASSY_1 1 100 100 559.23/100 559.23 Total 1320.54

Component Quantity/

cost per board is £7.75 for all volumes between 0 and 5,000 boards. If your company has Fixed Costs of £17,500 and a selling price of £13.50, what is the Margin of Safety if you produce 4,000 boards? Draw a graph to illustrate this point. [30] Break even point = FixedCosts Selling price − Variable costs = 17500 13.5 − 7.75 = 3043.4783 Margin of Safety = Existing sales − = 4000 − 3043.4783 = 956.5217 5. What does the company profit in the above example when you produce 4000 boards? [5] Profit = Earning − Cost = 13.5 × 4000 − (17500 + 7.75 × 4000) = 5500(£) 6. Your sales manager advises you that a new customer is willing to pay £20.00 per board but only for a maximum order of 2000 boards. How much profit or loss could you make on this order? Will there be a Margin of Safety in this case? If yes, calculate it. [20]

9 Profit = Earning − Cost = 20 × 2000 − (17500 + 7.75 × 2000) = 7000(£) So, it will profitable and profit is £7000. = − = 17500 20 − 7.75 = 1428.5714 Margin of Safety = Existing sales − = 2000 − 1428.5714 = 571.4286 Project Plan (Essay Assignment [10%]) 1. Project team members and their respective responsibilities. [5] Our team follows a Matrix Structure, which has functional and divisional structures. Under this structure, employees into project teams containing people from different functional areas of the business, which includes area of R&D and Product Line Supply Chain Management, Sales and Service and Finance; At the beginning of this project, I choose team members based on the needs of the project, with the teams benefiting from the different viewpoints and skill levels. In this team there are

per board Number of

boards

Total

quantity Price of each Total

price ATMega328 1 1000 1000 0.54 540 CH340G 1 1000 1000 0.1637 163.7 LM1117-3.3 1 1000 1000 0.24 240 LM1117-5.0 1 1000 1000 0.24 240 Crystal, 12MHz- HC49 Package 1 1000 1000 0.086 86 Crystal, 16MHz-HC49 Package 1 1000 1000 0.086 86 LED1 Red, SMT 1 1000 1000 0.0368 36.8 LED2, Red, SMT 1 1000 1000 0.0368 36.8 C1, C2 2 1000 2000 0.196 392 C3, C4, C5, C6 4 1000 4000 0.0062 24.8 R1, R2, R3, R4, R7, R8 6 1000 6000 0.0026 15.6

7 SWT_1 1 1000 1000 0.073 73 CONN_1 1 1000 1000 0.895 895 CONN_2 1 1000 1000 0.158 158 SIP_1 2 1000 2000 0.43413 868.26 SIP_2 1 1000 1000 0.43413 434.13 SIP_3 1 1000 1000 0.43413 434.13 SIP_4 1 1000 1000 0.43413 434.13 PCB_1 1 1000 1000 315.22/1000 315.22 ASSY_1 1 1000 1000 1333.85 1333.85 Total 6807.42

Component Quantity/

pe r board Number of

boards

basically four team members, a team member is responsible for design and manufacture from the department from R&D and product line, a team member in charge of manufacturing intermediate and final products from the Supply Chain Management department, a team member need to contact with the customers from department of Sales and Services and with a team member to ensure the cash flow and the current funds from the Department of Finance. 2. Clear purpose of your project in terms of the Statement of Work. [10]

10 At the customer's request, our team needs to manufacture a specified number of micro-controllers and deliver them to the user's designated place on time. The goal of the project is to bring the best benefits to the team and the customer and to provide the highest quality products with as little expenditure as possible. In this project, our team is responsible for providing micro-controllers to our customers. During the implementation of the project, our team is responsible for a series of tasks from designing components, comparing prices and purchasing materials and components, assembling samples, testing samples, mass production, packaging, and delivery. To ensure the smooth progress of the project, our team is also obligated to perform SOW analysis, Project Network Diagram analysis and Gantt Chart analysis on the characters. In the end, our team will be responsible for completing the number of parts required by the customer within the specified time limit and sending it to the location that the customer needs and ensuring that the customer knows the progress throughout the project. The

Total

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Break even

customer is responsible for providing detailed micro-controller design metrics and a list of potentially selectable parts. After our team has completed the design and confirmed the plan, In principle, customers are not allowed to put forward additional design indicators and parts selection requirements. They are supposed to pay more for the changes If they want to further update the design. From the current design plan, we will spend 30 days to complete the design, including the manufacture and delivery of the entire product. Our initial preparation will cost 4 days which is shown in our project Gantt Chart. Some details about the components are also shown in the appendix. For our team, as long as we follow the design indicators and do not exceed the budget, the corresponding number of microprocessors will be delivered to the designated location on time. The on-site display can ensure that the customer could be in normal use for 16 days. If there is no design and assembly failure, it shows that our team has successfully fulfilled the contract. The customer is obliged to pay the corresponding fee at the designated time node. Among them, the customer's funds are not in place, the parts specified by the customer are not up to standard, and the time delay caused by the abnormal use of the customer and the failure of the project due to improper delivery and component damage is not the responsibility of our team. In this case, the customer still needs to pay the extraordinary expenditures.

11 3. Work Breakdown Structure with clear emphasis on the work packages. [10] Under this Overall design task, we have five

point = FixedCosts Selling price − Variable costs = 17500 13.5 − 7.75 = 3043.4783

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Project Plan (Essay Assignment [10%]) 1. Project team members and their respective responsibilities. [5]

Our team follows a Matrix Structure, which has functional and divisional structures. Under this structure, employees into project teams containing people from different functional areas of the business, which includes area of R&D and Product Line

sub-tasks, including project establishment, project planning, design & production, delivery and presentation, and project summary. There are also lists of tasks under these five sub-tasks. 4. Demonstrate these interdependencies and interlink between various tasks with the help of a Project Network Diagram. [15] Consider: • there was a national holiday declared on the day after task 12 completion. • the weekends as a normal work day like any other day of the week. • the diagrams / figures to be hand-drawn with a ruler. The leftmost number in a box represents the relative start date, the middle number represents the task number, and the rightmost number represents the completion date.

12 5. Based on your Project Network Diagram above, how many days did it take to complete this project? Demonstrate with the help of the critical path. [5] Based on our Project Network Diagram above, we could see that it will take a total of 30 days to complete the project. In the figure, the start date in each box is equal to the end date in the previous box, and the end date in the same box is equal to the start date plus the duration of the task. It is noteworthy that after the completion of task12, it is the 19th day. Since there is a one- day holiday, the start date of task13 and 15 is the 20th day. In other cases, the weekend is treated as work day so we do not consider the weekend as a holiday. 6. Timeline of your project with the help of Gantt Chart clearly listing all the tasks. The chart must be hand-drawn with a ruler. [5]

Supply Chain Management, Sales and Service and Finance; At the beginning of this project, I choose team members based on the needs of the project, with the teams benefiting from the different viewpoints and skill levels. In this team there are basically four team members, a team member is responsible for design and manufacture from the department from R&D and product line, a team member in charge of manufacturing intermediate and final products from the Supply Chain Management department, a team member need to contact with the customers from department of Sales and Services and with a team member to ensure the cash flow and the current funds from the Department of Finance. 2.

Clear purpose of your project in terms of the Statement of Work. [10]

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13 ["748 words"] The final word count must be included thus ["7xx words"] at the end of your article. This final statement will not be included in the word count.

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