EVALUATION GUIDELINES - Written examination

EXC 21221
Strategic Management Accounting

Department of Accounting, Auditing and Business Analytics

Start date:	03.12.2019	Time 09:00
Finish date:	03.12.2019	Time 14:00

For more information about formalities, see examination paper.

Part one – Financial Planning (50%)

Exercise 1a) (15%)

	1.1.2020	31.12.2020
Fixed assets (1)	120 000 000	138 000 000
Inventory (2)	35 100 000	31 100 000
Accounts receivable (3)	23 976 000	22 680 000
Bank deposits (4)	5 214 000	7 214 000
Total assets	**184 290 000**	**198 994 000**

	1.1.2020	31.12.2020
Share capital (5)	36 000 000	52 000 000
Premium fund (5)	7 200 000	13 200 000
Retained earnings (6)	8 400 000	9 734 400
Long-term liabilities (7)	78 000 000	88 000 000
Short-term liabilities (8)	18 432 000	0
Overdraft bank account (13)	13 980 000	10 636 000
Payable taxes (9)	1 560 000	2 385 600
Accounts payable (10)	11 400 000	12 600 000
Unpaid share holder dividend (11)	3 600 000	4 800 000
Other short-term liabilities (12)	5 718 000	5 638 000
Total equity and liabilities	**184 290 000**	**198 994 000**

(1) Fixed assets

Opening balance 1.1.2020	120 000 000
+ Investments	32 000 000
- Depreciation	8 000 000
- Book value of sold assets	6 000 000
= Closing balance 31.12.2020	**138 000 000**

(2) Inventory

Opening balance 1.1.2020	35 100 000
- Reduction	4 000 000
= Closing balance 31.12.2020	**31 100 000**

(3) Accounts Receivable

Monthly budgeted sales	28 000 000
Monthly credit sales, 90%	25 200 000
Paid same month, 20%	5 040 000
Paid one month later, 70%	17 640 000
Paid two months later, 10%	2 520 000
November sales, unpaid 31.12.2020	2 520 000
December sales, unpaid 31.12.2020	20 160 000
A/R per 31.12.2020 2 520 000 + 20 160 000 =	**22 680 000**

(4) Bank deposits

Opening balance 1.1.2020	5 214 000
+ Increased balance	2 000 000
= Closing balance 31.12.2020	**7 214 000**

(5) <u>Share capital and premium fund</u>

Paid by investors	22 000 000	
- Increase share capital, nominal value	16 000 000	New balance **52 000 000**
= Premium fund	6 000 000	New balance **13 200 000**

(6) <u>Retained earnings</u>

Opening balance	8 400 000
+ Budgeted profit after taxes	6 134 400
- New accrual for dividend	4 800 000
= Closing balance	**9 734 400**

(7) <u>Long-term liabilities</u>

Opening balance	78 000 000
+ New loan	20 000 000
- Payments on old loans	10 000 000
= Closing balance	**88 000 000**

(8) <u>Short-term liabilities</u>

Opening balance	9 216 000
- Payments	9 216 000
= Closing balance	**0**

(9) <u>Payable taxes</u>

Opening balance	1 560 000
+ Taxes for 2020, to be paid in 2021	2 385 600
- Paid taxes for 2019	1 560 000
= Closing balance	**2 385 600**

(10) <u>Accounts Payable</u>

Cost of goods sold	172 000 000
- Decreased balance of inventory	4 000 000
= Purchases	168 000 000
Monthly purchases	14 000 000
Paid same month, 30%	4 200 000
Paid one month later, 50%	7 000 000
Paid two months later, 20%	2 800 000
November purchases, unpaid 31.12.2020	2 800 000
December purchases, unpaid 31.12.2020	9 800 000
A/P per 31.12.2020 2 800 000 + 9 800 000 =	**12 600 000**

(11) <u>Payable dividend</u>

Opening balance	3 600 000
+ Accrued dividend, to be paid in 2020	4 800 000
- Paid dividend in 2020	3 600 000
= Closing balance	**4 800 000**

(12) <u>Other short-term liabilities</u>

The opening balance consists of:		
Payable salaries	360 000	
Payable interests	1 440 000	
"Something else"	3 918 000	(holiday pay and other accruals)
= Opening balance 1.1.2020	5 718 000	
The closing balance consists of:		
Payable salaries	440 000	
Payable interests	1 280 000	
"Something else", remains unchanged	3 918 000	
= Closing balance 31.12.2020	**5 638 000**	

(13) Bank overdraft facility
198 994 000 – 52 000 000 – 13 200 000 – 9 734 400 – 88 000 000 – 2 385 600 – 12 600 000 – 4 800 000 - 5 638 000 = **10 636 000**

Question 1 b) (10%)

	1.1.2020	31.12.2020	Change in 2020	Cash-flow impact?
Fixed assets	120 000 000	138 000 000	+ 18 000 000	Partially
Inventory	35 100 000	31 100 000	- 4 000 000	Yes
Accounts receivable	23 976 000	22 680 000	- 1 296 000	Yes
Bank deposits	5 214 000	7 214 000	2 000 000	Net effect
Total assets	**184 290 000**	**198 994 000**	**+14 704 000**	

	1.1.2020	31.12.2020	Change in 2020	Cash-flow Impact?
Share capital	36 000 000	52 000 000	+ 16 000 000	Yes
Premium fund	7 200 000	13 200 000	+ 6 000 000	Yes
Retained earnings	8 400 000	9 734 400	+ 1 334 400	No
Long-term liabilities	78 000 000	88 000 000	+ 10 000 000	Yes
Short-term liabilities	18 432 000	0	- 18 432 000	Yes
Overdraft bank account	13 980 000	10 636 000	- 3 344 000	Net effect
Payable taxes	1 560 000	2 385 600	+ 825 600	Yes
Accounts payable	11 400 000	12 600 000	+ 1 200 000	Yes
Unpaid share holder dividend	3 600 000	4 800 000	+ 1 200 000	Yes
Other short-term liabilities	5 718 000	5 638 000	- 160 000	Yes
Total equity and liabilities	**184 290 000**	**198 994 000**	**+ 14 704 000**	

Net change in cash flow

Increased balance bank deposit	2 000 000
+ Decreased balance overdraft account	3 344 000
= Net budgeted cash flow in 2020, to be explained	+ 5 344 000

Profit before taxes	**8 520 000**
- Paid taxes	1 560 000
+ Depreciation	8 000 000
- Gain from sales of fixed assets	2 000 000
+ Decreased balance of inventory	4 000 000
+ Decreased balance of A/R	1 296 000
- Decreased balance of short-term liabilities	18 432 000
+ Increased balance of A/P	1 200 000
- Decreased balance short-term liabilities	80 000

= Net cash flow from operational activities	944 000

- Investments in fixed assets	32 000 000
+ Selling old fixed assets (6 000 000 + 2 000 000)	8 000 000

= Net cash flow from investing activities	- 24 000 000

+ Borrowing long-term	20 000 000
- Paid installments on old loans	10 000 000
+ Payments from shares holders	22 000 000
- Paid dividend	3 600 000

= Net cash flow from financing activities	+ 28 400 000
= Budgeted net cash flow 2020	**+ 5 344 000**

Question 2 a) (10%)

Activity rate, Group 1	6 000 000/10 000 = 600.00
Activity rate, Group 2	2 000 000/4 000 = 500.00
Activity rate, Group 3	800 000/8 000 = 100.00
Activity rate, Group 4	4 000 000/20 000 = 200.00

	Marcus	Matthew	Lucas	Brutus	Total
Production volume	2 000 units	1 600 units	1 200 units	400 units	5 200 units
Direct costs	4 000 000	4 800 000	4 800 000	3 200 000	16 800 000
Indirect costs, Group 1	360 000	840 000	2 400 000	1 200 000	4 800 000
Indirect costs, Group 2	200 000	400 000	100 000	800 000	1 500 000
Indirect costs, Group 3	40 000	200 000	200 000	160 000	600 000
Indirect costs, Group 4	240 000	160 000	1 600 000	1 200 000	3 200 000
Total indirect costs	840 000	1 600 000	4 300 000	3 360 000	10 100 000
Sum costs	4 840 000	6 400 000	9 100 000	6 560 000	26 900 000
Sum costs per unit	**2 420.00**	**4 000.00**	**7 583.33**	**16 400.00**	

Question 2 b) (5%)

Activity group 1: 6 000 000 – 4 800 000 = 1 200 000
Activity group 2: 2 000 000 – 1 500 000 = 500 000
Activity group 3: 800 000 – 600 000 = 200 000
Activity group 4: 4 000 000 – 3 200 000 = 800 000
= Total costs for excess capacity: **2 700 000**

Question 2 c) (10%)

The new order does not influence the indirect costs as long as we have the available capacity to deliver the additional order. The increase in direct costs will be 800 * 3 000 = 2 400 000
With a profit contribution of 400 000, the company must offer the order at 2 800 000/800 = **3 500.00 per unit.**

The costs for the utilized capacity will change as follows:
Activity group 1: (2 100 – 1 400) * 600.00 = 420 000
Activity group 2: (1 200 – 800) * 500.00 = 200 000
Activity group 3: (3 000 - 2 000) * 100.00 = 100 000
Activity group 4: (1 200 – 800) * 200.00 = 80 000
Change in costs for utilized capacity: **800 000**, which is the same as the reduction of costs for excess capacity.

Part two – Value Creation and Financial Performance Management (50%)

Exercise 3 (15%)

An *indicative solution* can be:

<u>The Financial Perspective</u>
(8) High revenue growth rate
(14) Stable income base
(12) Positive and increasing financial value creation

<u>The Customer/Market Perspective</u>
(6) High reputation in the private market for health care services
(13) Good relations to customers
(16) An increasing number of new customers [(1)]

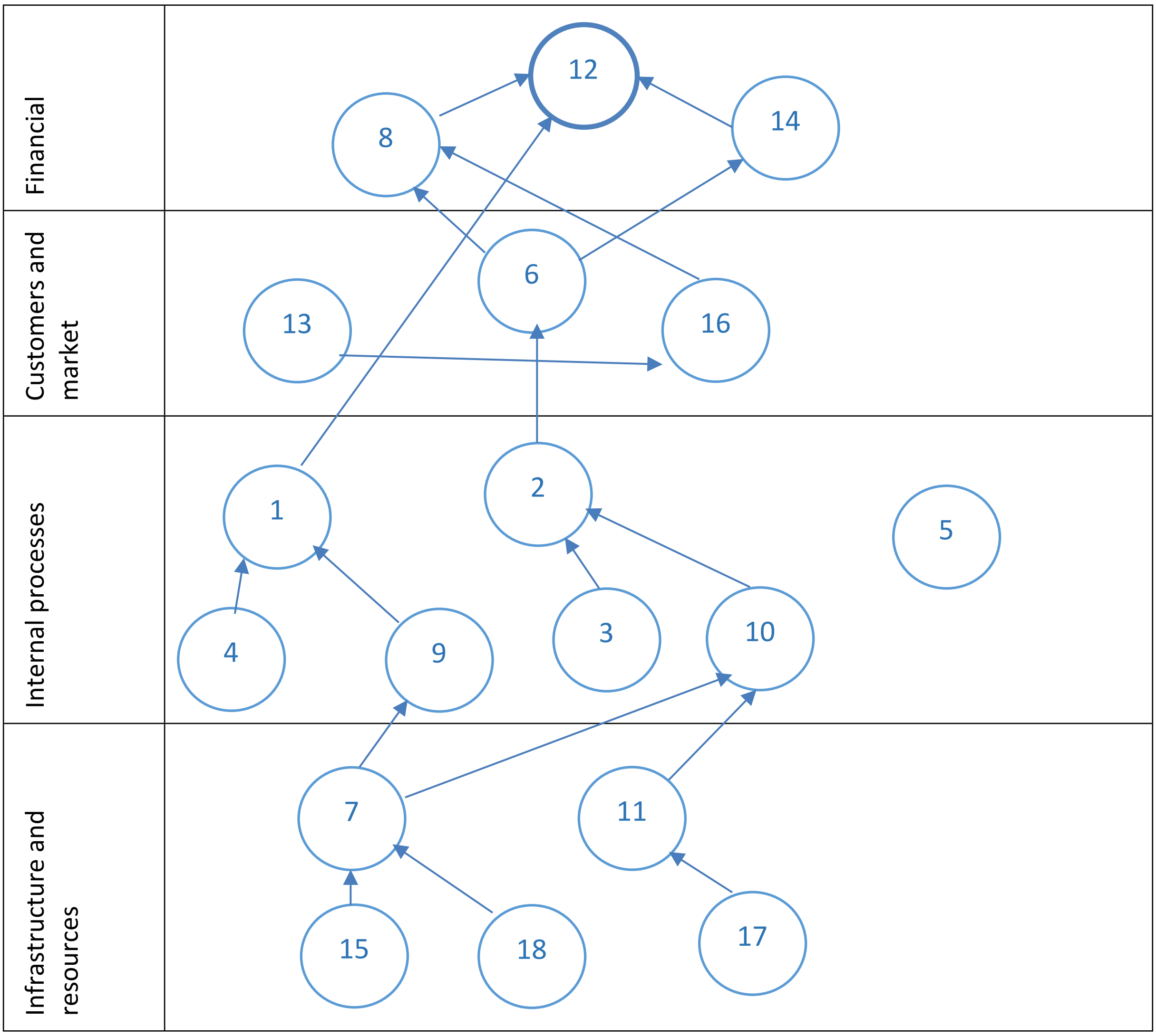
<u>The Internal Process Perspective</u>
(1) Cost-efficient operations [(2)]
(2) High level of quality, as perceived by the customers
(3) Routines that secure a high degree of patient security, for instance with regards to secure data protection (GDPR)
(4) Efficient processes for handling patients
(5) Effective support function for information and data systems (ICT) [(1)]
(9) Standardized procedures for treating patients
(10) Lowest possible rate of wrong medical diagnoses

<u>The Resource and Infrastructure Perspective</u>
(7) High level of employee competence
(11) Well-functioning organizational culture
(15) Good routines for personnel training
(17) High ethical level of medical personnel
(18) Good relations to medical academic and research partners [(3)]

[(1)] Can also be placed under the Resource and Infrastructure Perspective
[(2)] Can also be placed under the Financial Perspective
[(3)] Can also be placed under the Customer and Market Perspective ("external perspective")

Exercise 4 (10%)

An indicative solution can be:



Exercise 5 (15%)

<u>(12) Positive and increasing financial value creation</u>

- This is a consequence of success in all areas and therefore the long-term and overall target
- Hence, the way to a positive and increasing financial value creation starts with gaining control over the five success factors in the infrastructural and resource perspective, which is a necessary condition for improving internal processes
- With success in the internal processes, such as in areas related to quality and operational excellence, we have the necessary conditions for customer and market success. With satisfied customers, we may create the reputation that is necessary for a stable and loyal customer base and revenues. When we have returning customers as well as the ability to attract new ones, we may experience a profitable growth.

(2) High level of quality, as perceived by the customers

- The strategy map shows us that a high quality level is a consequence of both good routines for the handling of patient information as well as a low rate of wrong medical diagnoses.
- The latter is the consequence of a high level of competence and a well-functioning organizational culture

(10) Lowest possible rate of wrong medical diagnoses

- The strategy map shows us that a low rate of wrong medical diagnoses is a consequence of a high level of competence and a well-functioning organizational culture

(9) Standardized procedures for treating patients

- The strategy map shows us that standardization is a consequence of competence (experience and previous learning) and the necessary training of personnel.

Exercise 6 (10%)

(12) Positive and increasing financial value creation
Lag: Return on Assets
Lead: Profit rate and the rate of return on total capital (the two main factors in the DuPont-model)

(2) High level of quality, as perceived by the customers
Lag: The rate of customers that will recommend Empatia to another person
Lead: The rate of customers with improved health conditions after completing the medical treatment programs

(10) Lowest possible rate of wrong medical diagnoses
Lag: This could be difficult to measure! The rate of customers *without* improved health conditions after completing the medical treatment programs may indicate faulty diagnoses, but there could also be other relevant factors to consider.
Lead: This is also difficult to measure, but competence, experience and learning is of course relevant

(9) Standardized procedures for treating patients
Lag: The number of standard routines may indicate how many of treatments that fall into procedures with a high degree of standardization
Lead: Also here are competence, experience and learning key factors, but the challenge is to find something that actually measures the level of competence, experience and learning abilities.