



MNP2601

(493249)

October/November 2015

PURCHASING MANAGEMENT

Duration

2 Hours

70 Marks

EXAMINERS FIRST

IRST DR JO CILLIERS

SECOND MRS L MARCANTUONO

Use of a non-programmable pocket calculator is permissible.

Closed book examination

This examination question paper remains the property of the University of South Africa and may not be removed from the examination venue

INSTRUCTIONS:

- 1. PLEASE COMPLETE THE ATTENDANCE REGISTER ON THE BACK PAGE, TEAR OFF AND HAND IT TO THE INVIGILATOR.
- 2. THIS IS A FILL-IN EXAMINATION PAPER CONSISTING OF 34 PAGES, INCLUDING 2 PAGES FOR ADDITIONAL SPACE (PP 31-32) AND 2 PAGES FOR ROUGH WORK (PP 33-34). PLEASE FOLLOW THE INSTRUCTIONS BELOW FOR ANSWERING SECTIONS A AND B.
- 3. SECTION A CONSISTS OF 35 MULTIPLE CHOICE QUESTIONS, WHICH SHOULD BE COMPLETED USING THE MARK-READING SHEET. AS A BACK-UP OF YOUR ANSWERS, ALSO CIRCLE THE SELECTED OPTION ON THE QUESTION PAPER.
- 4. SECTION B CONSISTS OF DESCRIPTIVE QUESTIONS OF WHICH QUESTION 1 IS COMPULSORY, AFTER WHICH YOU HAVE TO DO ONLY ONE QUESTION OF QUESTIONS 2 AND 3. WRITE YOUR ANSWERS TO THE DESCRIPTIVE QUESTIONS IN THIS BOOK IN THE SPACES PROVIDED AND HAND IT TO THE INVIGILATOR WHEN YOU ARE DONE.
- 5. DRAW A CIRCLE ON THE FRONT COVER INDICATING WHICH DESCRIPTIVE QUESTIONS YOU HAVE CHOSEN TO ANSWER.
- 6. THE CASE STUDY REFERRED TO IN THE PAPER IS AT THE BEGINNING OF THE EXAMINATION PAPER.
- 7. READ THROUGH ALL THE QUESTIONS CAREFULLY.

8. PLEASE CHOOSE IN WHICH LANGUAGE YOU PREFER TO ANSWER THE QUESTION PAPER (AFRIKAANS OR ENGLISH) IN ADVANCE AND THEN ANSWER THE QUESTIONS IN THE OPEN SPACES PROVIDED IN THAT PART OF THE QUESTION PAPER. IMPORTANT: IF YOU DO NOT HAVE ENOUGH SPACE TO WRITE, PLEASE USE THE RELEVANT SECTION CALLED "ADDITIONAL SPACE" IN THAT PART OF THE EXAMINATION PAPER YOU DECIDED TO ANSWER YOUR QUESTIONS. YOU ARE NOT ALLOWED TO WRITE ANSWERS IN BOTH THE ENGLISH AND AFRIKAANS PARTS OF THE EXAMINATION PAPER.

Read the following case study before answering the questions related to the case study.

Case study: Supplying maize in South Africa

This case study explains parts of the supply chain of maize as a critical grain harvest in South Africa (SA)

Maize contribution to the SA economy

SA maize, as an agricultural product, is one of the contributors to the gross domestic product (GDP) of the country SA produced an average of 11 3 million tons of maize annually between 2001 and 2014. The country exports its maize surplus to Zimbabwe, Japan, Zambia, Mauritius, Kenya and Mozambique. Currently, the maize industry in SA is seen as the largest on the African continent. Maize prices in South Africa have been regulated by the forces of supply and demand since 1997. Since the price of maize is regulated by these market forces, it is expected that an increased supply of maize will result in lower maize prices.

Maize production: yellow or white maize

There are two categories of maize, namely white and yellow maize. White maize is normally produced for human consumption, while yellow maize is mainly used for animal feed. Currently, the South African maize harvest mainly consists of white maize. In the North-West province, farmers have realised that it may be more rewarding to plant white maize instead of yellow maize, because of the growth in the livestock industry in this province.

Maize supply chain

Maize can be harvested either automatically or through human effort, after which it is stored in storage towers or silos. The total grain silo storage capacity in SA is projected as 1.75 million tons 85% of the storage towers are owned by 22 silo owners who fall under the following cooperatives. Senwes, Afgri and Noordwes. Most of these storage facilities are located in the northern part of the country and have a storage capacity of 14.5 million tons of maize.

The harvested maize is usually distributed to maize millers, where maize meal is produced. Bags of maize meal are distributed to wholesalers and then to retail stores where customers can

purchase them Maize grown in remote areas is sometimes transported to big cities for milling and then the bags of maize meal are transported back to the customers in the remote areas

Government support for small maize businesses

Small maize millers have the capacity to produce 1000 tons of maize meal per month and 288 000 tons per year, which amounts to 6% of SA's total maize meal production. The Agroprocessing Business Unit and the Foundation for African Business and Consumer Services (Fabcos) have launched a project to facilitate the entry of small-scale maize millers in cities and remote areas. This project was initiated in May 2014 by the Department of Trade and Industry (DTI) and 24 small maize millers were selected to participate in order to increase the supply of maize meal and to ensure that it is affordable to customers. Funds were made available to establish self-sustainable, competitive and employment-generating mills.

Empowering the small millers as part of the project extended to skills training. Substantial amounts were budgeted to train millers to acquire skills in commercial milling in partnership with skilled millers.

In an effort to reduce logistics costs, the DTI also acquired the Isigayo mill, a compact maize milling plant, to make the harvesting, production and consumption of maize products in one place possible

Conclusion

As a staple food, maize satisfies one of the basic needs of human beings and animals, and is critical in both urban and rural areas. Since maize contributes to the country's gross revenue, the South African government has launched an initiative to improve the maize meal outputs of small-scale millers with the aim of reducing the price of maize and increasing the supply of maize meal

Case study adapted from

http://www.namc.co.za/upload/food_pricemonitoring/FPM%20Report%202004_04_02_FoodValueChains_Maize.pdf

http://www.southafrica.info/business/economy/development/farmers-220713.htm# VNx-smwU-po

http://www.arc.agric.za/arc-gci/Fact%20Sheets%20Library/Maize-infopak.pdf

http://www.nda.agric.za/docs/infopaks/Maize.pdf

http://jadafa.co.za/wp-content/uploads/2014/06/South-Africa_Agricultural_Commodities_Brief.pdf

[The above websites were accessed on 13 February 2015]

SECTION A

- 1. ANSWER ALL THE QUESTIONS IN THIS SECTION ON THE MARK-READING SHEET. FAMILIARISE YOURSELF WITH THE INSTRUCTIONS FOR COMPLETING A MARK-READING SHEET.
- 2. MAKE A BACK-UP OF YOUR ANSWERS AS INSTRUCTED ON THE FIRST PAGE.
- 3. QUESTIONS 21-35 ARE BASED ON THE CASE STUDY.

TOTAL OF 35 MARKS

QUESTION 1

The concepts of logistics management and supply chain management are sometimes confused. Which statement is correct about the difference between these concepts?

- [1] Supply chain management involves activities related to the effective flow of material and information within the boundaries of a specific organisation
- [2] The focus of logistics management is on managing relationships between different organisations across the entire supply chain
- [3] Logistics is that part of the supply chain that manages the forward and reverse flow of goods and information from the point of ongin to the point of consumption
- [4] Supply chain management focuses on optimising wealth for a single organisation by adding value.

QUESTION 2

Which one of the following can typically be categorised as an inbound logistics activity?

- [1] inspecting inventory
- [2] cross-docking
- [3] warehousing
- [4] customer service

QUESTION 3

Which one of the following can be categorised as **both** an inbound and an outbound logistics activity?

- [1] customer service
- [2] cross-docking
- [3] transportation
- [4] salvage and scrap

If a company adopts the philosophy of lean manufacturing, they would typically use the following statement in conversations

- [1] By keeping large inventories of raw materials, even if these items are not used in manufacturing, we will be prepared to respond to customers' orders when they come in
- [2] If we have more work stations at the plant, we can employ more people to be part of the manufacturing process
- [3] By simplifying our work environment, we can reduce waste and keep our employees, equipment and workspace responsive to current needs
- [4] We have invested large sums of capital in these advanced machines; therefore, we need to get maximum return on our investment before meeting changing demands

QUESTION 5

During the control task, the activity of evaluating the performance of the purchasing and supply function should be based on **both** the following critical dimensions

- [1] tactical and strategic objectives
- [2] centralisation and decentralisation
- [3] quantitative and qualitative bases
- [4] cost reduction and reduced lead time

QUESTION 6

A typical example of a qualitative indicator for evaluating purchasing and supply activities in the organisation is the . . the purchasing and supply function

- [1] negotiation ability of
- [2] promptness factor achieved by
- [3] rejection ratio of consignments by
- [4] outstanding orders of

QUESTION 7

Quality certification, as a quantitative metric that is used in purchasing and supply performance evaluation, is determined by using the ratio between and

- [1] number of quality certificates received during the past year, expected performance
- [2] number of suppliers which are also accredited suppliers for other organisations; quality delivered
- [3] number of suppliers certified for quality, total number of suppliers in the supply base
- [4] actual quality cost, number of orders placed

Since the purchasing and supply function is a support function, **lateral** purchasing and supply coordination is essential. This means that purchasing and supply

- [1] has a harmonious relationship with other organisational functions.
- [2] uses horisontal thinking to solve purchasing and supply challenges
- [3] distributes an annual report to all the relevant internal and external stakeholders.
- [4] promotes a hybrid purchasing and supply organisational structure

QUESTION 9

The following principle should be kept in mind when evaluating purchasing and supply performance

- [1] It would be best to use the generic evaluation system that is available to evaluate purchasing and supply performance
- [2] Quantitative measures give the best and most accurate indication of purchasing and supply performance
- [3] As long as the benefits equal the costs, the evaluation system for evaluating purchasing and supply performance is effective
- [4] A sound database with information on a wide spectrum of purchasing and supply activities is necessary to evaluate performance

QUESTION 10

When determining responsibilities in the purchasing and supply process, the prime responsibility to contact the supplier base about faulty consignments

- [1] receiving
- [2] inspection
- [3] financial
- [4] purchasing

QUESTION 11

Expediting an order in the purchasing and supply context implies that the purchasing official firstly.

- [1] obtains advanced technology to speed up the process
- [2] phones the supplier to discuss future relationships.
- [3] monitors the supplier's progress with the order.
- [4] suggests lean manufacturing as an efficient alternative.

When buying specialised equipment, the purchasing procedures might require that requisitions exceeding a predetermined amount be accompanied by two or three written quotations. In such cases, the has the prerogative of selecting the supplier

- [1] user
- [2] purchasing official
- [3] equipment specialist
- [4] financial function

QUESTION 13

When making the decision to insource or outsource, which one of the following options is most suitable when a buying organisation is more competent in performing an activity than a potential supplier?

- [1] Outsource to any supplier that has the capability to perform the activity
- [2] Outsource a core activity even though it gives a competitive advantage
- [3] Invest in disadvantaged suppliers to create their capability to perform the activity elsewhere
- [4] Keep the activity in-house and invest to maintain and increase competitive advantage.

QUESTION 14

... is when an organisation decides to partially transfer the activities of a function to a supplier while keeping the rest of the activities in-house

- [1] Outsourcing
- [2] Insourcing
- [3] Co-sourcing
- [4] Back-sourcing

QUESTION 15

Reciprocity is a practice where .

- [1] suppliers, who are also customers of the organisation, enjoy preferential treatment
- the supplier is directly or indirectly owned by the purchasing organisation
- [3] the buyer buys from a supplier that is owned by a family member of the buyer
- [4] a purchasing organisation buys more than half of the supplier's production

Which one of the following statements refers to the most likely decision of whether inventory will be held by suppliers on behalf of the buying organisation?

- [1] Suppliers should not be asked to hold sufficient safety inventory for the buying organisation based on ethical reasons
- [2] Even if the supplier is located near the premises of the buying organisation, it would still be best to hold inventory at the buying organisation's premises
- [3] Inventory held by a supplier can have cost implications for the supplier, which will be transferred to the buying organisation
- Only contingency inventory should be held by the supplier in their warehouses until needed by the buying organisation due to the insurance risks borne by the supplier

QUESTION 17

If a company leases computer equipment, which one of the following best describes **risk** transfer as a way to manage risks?

- [1] The financial consequences of losing computers are transferred to the insurance company
- [2] In the lease agreement, the risk of obsolescent computers is transferred to the owner of the computers.
- [3] The risk of stolen computers is transferred to the board of directors
- [4] The risk of redundant computers can be transferred to the computer equipment manufacturer

QUESTION 18

According to the King III report which level of the organisation is **primarily** responsible for the development and implementation of good ethics?

- [1] financial officials
- [2] shareholders
- [3] internal stakeholders
- [4] board of directors

QUESTION 19

. costs typically anse from warranty claims and product recalls

- [1] Internal failure
- [2] Appraisal
- [3] External failure
- [4] Prevention

Amazon com, an online retailer, uses a central computer in their warehouses, which records the location of goods and maps out routes for pickers of ordered items. If the central computer should have insufficient capacity to handle all the required transactions, it would imply the following type of operational risk:

- [1] hardware risk
- [2] systems risk
- [3] policy risk
- [4] process risk

Questions 21 - 35 are based on the case study at the beginning of the paper.

QUESTION 21

Storing 14.5 million tons of maize in silos at different cooperatives can hold some risks, of which ... risk refers to the supply risk when maize prices fluctuate

- [1] core business
- [2] external downside
- [3] incidental business
- [4] foreign exchange

QUESTION 22

... risk is experienced when damaged roads due to flooding delay the delivery of maize to the silos

- [1] Lead time
- [2] External downside
- [3] Incidental business
- [4] Foreign exchange

QUESTION 23

The risk of receiving sub-standard quality maize in the silos could proactively be managed by the following management technique

- [1] ABC inventory management
- [2] supplier certification
- [3] target costing
- [4] buffer inventory

As a general rule of thumb, small-scale maize millers should realise that the poor quality of incoming maize grain from farmers could cause approximately % of the problems and related costs associated with the maize meal products reaching the final consumer

- [1] 20
- [2] 40
- [3] 75
- [4] 95

QUESTION 25

The quality of service that internal suppliers provide to internal customers is equally important. In terms of the government's support programmes to help the small-scale millers as discussed in the case study, the would most probably be the internal supplier/s of maize grain to small millers

- [1] government purchasers of maize grain
- [2] sellers of milling equipment
- [3] rural maize users
- [4] Department of Trade and Industry

QUESTION 26

One of the cost elements that small-scale maize millers should consider is direct material costs, which in this case would refer to the .

- [1] cost of the cleaning materials for the milling machines
- [2] electricity cost for operating the milling machines.
- [3] cost of adjusting the coarseness of the milled maize
- [4] cost of the maize grain used in the milling process

QUESTION 27

Millers should see electricity as a semi-variable cost, which in this case would imply that electricity ..

- [1] usage varies according to South Africa's load-shedding schedule
- [2] is only a variable-cost component which changes according to production volumes
- [3] could have both a variable-cost and a fixed-cost component for the milling facility
- [4] can be replaced by manual labour if electricity provision is uncertain

The decision-makers in the Department of Trade and Industry most probably assumed that the miller's learning curve would change over time to decrease the labour cost component of milled maize. In this case, an improved learning curve would imply that

- [1] the more small-scale millers attend training sessions before being selected for the programme, the more skilled they will be during the milling process
- [2] the more skilled the small-scale millers become in actually handling the milling equipment, the more bags of milled maize will be produced
- [3] maize millers' labour skills can be improved indefinitely through the repeated handling of milling equipment
- [4] skilled workers who are unwilling to work or often go on strike should be replaced by advanced milling equipment

QUESTION 29

As a rule of thumb, the millers should learn that the inventory holding costs of produced maize usually represent on average % of the amount invested in maize inventory

- [1] 10
- [2] 20
- [3] 50
- [4] 75

QUESTION 30

Optimum maize inventory for millers would imply a situation where .

- [1] maize transportation costs from rural areas are the lowest
- [2] overall maize inventory costs are the lowest
- [3] inventory holding costs equals inventory ordering costs
- [4] the stock-out costs of maize inventory are related to transportation costs

QUESTION 31

A typical example of multi-purpose capital equipment purchased by millers would be

- [1] forklifts for moving bags of maize meal in storage.
- [2] milling machines for grinding maize grain
- [3] stitching machines for closing maize bags
- [4] specialised maize milling plants to produce maize meal

When contracting a repair expert to fix a milling machine, there is no lead time in repair service delivery. This refers to the following characteristic of services.

- [1] heterogeneity
- [2] simultaneity
- [3] perishability
- [4] Intangibility

QUESTION 33

If a machine repairman arrives at the plant, only to realise that he needs other tools and more hands to repair the machine at that specific time, the subsequent non-rendering of the service would be due to the of services

- [1] perishability
- [2] simultaneity
- [3] Intangibility
- [4] heterogeneity

QUESTION 34

When the Department of Trade and Industry buys transportation services for delivering maize to the 24 small-scale millers, they should ensure that the potential transportation companies are able to deliver the maize at the geographically dispersed milling plants. In this case — is a key variable in transport decision making.

- [1] reliability
- [2] capability
- [3] accessibility
- [4] speed

QUESTION 35

Distinguishing between ethical and unethical conduct is difficult. Which ONE of the following lines of thinking would be ethical when allocating a budget to a province to train millers for a six-month period in commercial milling?

- [1] My brother-in-law has a training facility in Kimberley which we could easily use for our training. By doing this, both my family and the Department of Trade and Industry would benefit
- [2] It would make financial sense to use a written quotation from one of the training companies to help a competing training company to quote the lowest price for the training.
- [3] Since bribes are common practice in other African countries we can do the same when awarding contracts to trainers in the Northern Cape province
- [4] Loyalty has a price, therefore, even if my career is at stake, I have to blow the whistle on my superior who awarded the training contract to his best friend

[Turn over]

SECTION B

ANSWER QUESTION 1 (COMPULSORY) AND THEN ONLY ONE QUESTION OF QUESTIONS 2 AND 3.

QUESTION 1 AND PARTS OF QUESTIONS 2 AND 3 ARE BASED ON THE CASE STUDY AT THE BEGINNING PAPER.

TOTAL OF 35 MARKS

Question 1 (compulsory)

[10 marks]

1.1 From the case study can be deduced that the approach followed when determining the price of maize is based on prevailing market prices. Motivate this statement from the case study.
(3)

[If the case does not provide specific information to substantiate your answer you are allowed to make relevant assumptions.]

- 1.2 Standardisation is a helpful technique in managing quality in purchasing and supply.
 - (a) Define standardisation

(2)

- (b) Discuss how silo owners can use standardisation in terms of the white maize received from the farmers (2)
- (c) Discuss how standardisation implemented by silo owners would benefit the small-scale millers who purchase from these silos. (3)

[You may make relevant assumptions if the case does not provide relevant information to substantiate your answer.]

1.1 From the case study can be deduced that the approach followed when determining of maize is based on prevailing market prices	the price
Motivate this statement from the case study	(3)
[If the case does not provide specific information to substantiate your answer you are make relevant assumptions]	allowed to
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(a) Define standardisation	(2)
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(b) Discuss how silo owners can use standardisation in terms of the white maize received from the farmers (2
(c) Discuss how standardisation implemented by silo owners would benefit the small-scale millers who purchase from these silos (3

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Ques	stion 2	[25 marks]
2.1	Discuss ANY 9 supplier selection criteria when assessing suppliers	Your discussion
	should also include one relevant example per criterium	(19)
[This	question is a basic theory question and no application to the case study is	required]
2.2	Based on the case study, the small-scale millers produce marze produce	ucts at affordable
	prices. Categorise ANY 3 types of inventory held at the small-scale	milling plants by
	providing a short discussion of the inventory categories and a relevant ex	cample. (6)
[You	may make relevant assumptions if the case does not provide relevant info	mation to
subs	tantiate your answer.]	
		_
2.1	Discuss ANY 9 supplier selection criteria when assessing suppliers should also include one relevant example per criterium	Your discussion (19)
[This	question is a basic theory question and no application to the case study is	required]
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Criterium 2			

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2.2	Based on the case study , the small-scale millers produce maize products at affordable prices. Categorise ANY 3 types of inventory held at the small-scale milling plants by providing a short discussion of the inventory categories <u>and</u> a relevant example (6)
[You substa	may make relevant assumptions if the case does not provide relevant information to antiate your answer]
•	Category 1 ⁻
•	Category 2

•	Category 3	 		
		 	 	 #### *********************************
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tion 3	[25 marks]
If suppliers are using price analysis to determine selling prices, discuss the	six different
pricing models to assist them in determining prices	(19)
question is a basic theory question and no application to the case study is requi	red.]
From the case can be deduced that decisions should be made on appropriate machines as part of small-scale millers' capital equipment. Explain short decision about milling machines mean in terms of the following considerations: (a) reliability (b) flexibility (c) space (d) safety (e) effect on quality of end products (f) durability	ly what the
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relevant assumptions.]	
If suppliers are using price analysis to determine selling prices, discuss the spricing models to assist them in determining prices question is a basic theory question and no application to the case study is required.	(19)
	If suppliers are using price analysis to determine selling prices, discuss the pricing models to assist them in determining prices question is a basic theory question and no application to the case study is required. From the case can be deduced that decisions should be made on appropriately applied to small-scale millers' capital equipment. Explain short decision about milling machines mean in terms of the following considerations: (a) reliability (b) flexibility (c) space (d) safety (e) effect on quality of end products (f) durability (e) case does not provide specific information to substantiate your answer you are relevant assumptions.]

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3.2	From the case can be deduced that decisions should be made on appropriate milling machines as part of small-scale millers' capital equipment. Explain shortly what the decision about milling machines mean in terms of the following qualitative considerations:
[If the make	(a) reliability (b) flexibility (c) space (d) safety (e) effect on quality of end products (f) durability (a) case does not provide specific information to substantiate your answer you are allowed to relevant assumptions
(a)	reliability
(b)	flexibility
(c)	space
(d)	safety
(e)	effect on quality of end products
(f)	durability

ADDITIONAL SPACE

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ROUGH WORK								
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EXAMINATION MARK READING SHEET

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c13 r23 c33 r41 r53

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EKSAMEN-MERKLEESBLAD

PART 1 (GENERAL/ALGEMEEN) DEEL 1 STUDY UNIT AS PSY100-X STUDIE EENKEID by PSY100-X INITIALS AND SURMAME VOORLETTERS EN VAN DATE OF EXAMINATION DATUM VAN EKSAMEN EXAMINATION CENTRE (E.G. PRETORIA) PAPER NUMBER VRAESTELNOMMER EKSAMENSENTRUM (BV PRETORIA) STUDENT NUMBER DINKOUE PAPER NO TUDENTENOMME 8] 6 (0) (0) (0) (0) (0) (0) (0) 02 (02 (02 (02 (03 etreta eta eta eta eta eta eta eta For use by examination invigilator c13 c13 c13 c13 c13 c1 21 (23 (22 (21 (22 (23 (23) (2) (2) (2) (2) (2) (2) (3) (3) (3) (3) (3) (3) (4) (4) (4) (6) (5) (5) (5) Vir gebruik deur eksamenopsiener (6) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6) (7) (7) (7) (7) (7) (7) (7) (8) (8) (8) (8) (8) (8) (8) (R) (R) (R) (R) (R) (R (9) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9) IMPORTANT BELANGRIK 1 USE ONLY AN HB PENCIL TO COMPLETE THIS SHEET 1 GEBRUIK SLEGS N HB POTLOOD OM HIERDIE BLAD TE VOLTOOI 2 MARK LIKE THIS PE MERK AS VOLG 3. CHECK THAT YOUR INITIALS AND SURNAME HAS BEEN FILLED IN CORRECTLY KONTROLEER DAT U VOORLETTERS EN VAN REG INGEVUL IS 4 ENTER YOUR STUDENT NUMBER FROM LEFT TO RIGHT **VUL U STUDENTENOMMER VAN LINKS NA REGS IN** 5. CHECK THAT YOUR STUDENT NUMBER HAS BEEN FILLED IN CORRECTLY KONTROLEER DAT U DIE KORREKTE STUDENTENOMMER VERSTREK HET 6. CHECK THAT THE UNIQUE NUMBER HAS BEEN FILLED IN CORRECTLY KONTROLEER DAT DIE UNIEKE NOMMER REG INGEVUL IS CHECK THAT ONLY ONE ANSWER PER QUESTION HAS BEEN MARKED MAAK SEKER DAT NET EEN ALTERNATIEF PER VRAAG GEMERK IS 8 DO NOT FOLD B. MOENIE VOU NIE PART 2 (ANSWERS/ANTWOORDE) DEEL 2 c†3 F23 c33 F43 F53 t11 (21 (3) (4) (5) (1) (2) (3) (4) (5) r13 t2: t3: 4: t5: 106 c13 r25 r35 r45 r5: 37 r13 r23 r33 r43 r53 72 (1) (2) (3) (4) (5) t12 t21 t31 t41 t5: W c11 (2) (3) (4) (5) (1) (2) (3) (4) (5) r11 r21 r31 r41 r51 r13 t21 t31 t41 *5: 38 73 103 C\$2 C21 C31 C41 C51 40 cts c2s c3s c4s c5s 75 (1) (2) (3) (4) (5) 110 C11 (21 (3) (4) (5) c10 c20 c30 c40 c5: C13 C23 C43 C43 C53 (3 2 (7 2 (3 2 (4 2 (5 2 76 113 173 133 143 153 (1) (2) (3) (4) (5) 77 112 122 133 143 152 c10 c20 c30 c40 c50 112 C12 C21 C31 C42 C51 r 1 x 12 x 13 x 14 x 15 x 43 r\$1 r22 r31 r41 r51 rin r29 r33 r45 r65 cta c21 c31 c43 c51 78 113 123 133 143 15: (1) (2) (3) (4) (5) 44 (1) (2) (3) (4) 5: 79 (1) (2) (3) (4) (5) 114 BO cha cha cha cha cha 45 r13 r23 r33 r43 r53 (1) (2) (3) (4) (5) c12 c21 c32 c42 c51 115 £33 £23 *32 £43 £51 c10 c21 c31 c41 c51 81 r10 r20 r30 r40 r50 (1) (2) (3) (4) (5) c10 c20 c30 c40 c50 cta c2a c3a c4a c5a c10 c20 c30 c40 c50 c13 c23 c33 c43 c53 13 £13 £23 £33 £43 £53 48 c13 c23 c33 c43 c53 83 c10 c20 c30 c40 c5 C\$2 C21 C31 C41 C5 r12 r22 r32 r42 r5 £13 £23 15 £13 £23 £32 £43 £53 50 (1) (2) (3) (4) (5) r10 r2: c\$3 c23 c33 c42 c53 r11 r21 (3) r42 r52 113 123 133 143 153 52 53 54 (1) (2) (3) (4) (4) (1) (2) (3) (4) (5) (2) (3) (4) (4) 17 £13 £23 £33 £43 £53 (2) (3) (4) (5) 613 623 633 643 653 (1) (2) (3) (4) (5) rfo r2o r3o r4o r5o (1) (2) (3) (4) (6) 123 19 £13 £22 £32 £42 £52 (1) (2) (3) "4) (5) rja (23 (34 (42 (5) (1) (2) (3) (4) (5 20 90 (1) (2) (3) (4) (5) 125 113 123 133 141 151 rfo (2) (3) (1) (5) (1) (2) (3) £12 £22 £32 £42 £53 126 (10 (20 (30 (40 (50 c1> c2> c3> c4> c5: (1) (2) (3) (4) (5) 127 (13 (23 (33 (43 (5) (1) (2) (3) (4) ((1) (2) (3) (4 23 58 59 c11 c21 c31 c41 c5: Q1 cts (2) (3) (4) (5) (12 (22 (33 (43 (5) r13 t23 t33 t4 £13 £23 £33 £43 £53 (12 (22 (33 (43 (5) 129 \$13 \$25 \$33 \$A3 \$B5 c10 c20 c30 c40 c5: c10 c20 c30 c40 c50 130 c12 t22 t32 t42 t52 t13 (23 (33 (43 t6) 26 27 C\$0 (20 (30 (40 (5) 131 £13 £23 £33 £43 £53 (15 (2) (3) (4) (5) 62 cf3 c21 c32 c43 c53 97 ria r2a r3a r4a r5a r10 c20 c30 c40 c50 113 123 133 143 15: £10 £20 £30 £40 £54 63 c10 r20 r30 r40 r52 133 (10 t20 t30 t40 t5) 29 30 c12 c23 c33 c41 c51 113 (23 (3) (43 (5) 64 65 [10 [24 [30 [40 [5] ر يو کيو 110 (20 (3) (4) (5) (12 123 (33 (43 (5) 100 (13 (23 (33 (43 (5) 110 (2) (3) (4) (5) ٠, Ŷ. 31 (13 (22 (3) (42 (5) 66 C13 C23 C33 C43 C53 261 t10 t20 t30 t40 t5: £73 £23 £33 £43 £53 111 623 633 643 653 (1) (2) (3) (4) (5) 102 (1) (2) (3) (4) (6) 137 C10 C70 C30 C40 F51

r10 t20 t30 t40 t5

c11 (21 (31 t41 c5

c12 (22 (37 (42 t5)

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