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NATIONAL SENIOR CERTIFICATE EXAMINATION
NOVEMBER 2022

AGRICULTURAL MANAGEMENT PRACTICES

MARKING GUIDELINES

Time: 3 hours 200 marks

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SECTION A

QUESTION 1

1.1
1.1.1 C
1.1.2 C
1.1.3 D
1.1.4 D
1.1.5 B
1.1.6 B
1.1.7 A
1.1.8 A
1.1.9 C
1.1.10 D

1.2
1.2.1 D
1.2.2 I
1.2.3 J
1.2.4 B
1.2.5 E
1.2.6 C
1.2.7 A
1.2.8 H
1.2.9 G
1.2.10 F

1.3
1.3.1 Subtropical grazing crops
1.3.2 Contract
1.3.3 Employment Equity Act/Act 55 of 1998
1.3.4 pH
1.3.5 Casual worker/Casual labourer
1.3.6 Aquaponics
1.3.7 Grading
1.3.8 Insurance
1.3.9 Controlled marketing
1.3.10 Planning

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SECTION B

QUESTION 2 RESOURCE UTILISATION, LAND USE AND FARMING SYSTEMS

2.1 **Functions of soil in the production process**

- Anchors plants and serves as a dwelling for animals.
- Provides nutrients to plants.
- Stores and makes water available to plants.
- Soil allows movement of air.
- Soil allows water infiltration.
- Soil plays a role in carbon sequestration (capture).
- Soil plays a role in regulating climate.

Any 4

2.2 2.2.1 **How does light wind affect the growth of plants?**

A light wind provides carbon dioxide to plants to enhance photosynthesis and growth of the plant.

2.2.2 **How does strong wind limit agricultural production?**

- Strong winds cause mechanical damage to plants that causes plants to grow slower or abnormally with lower production.
- Strong winds increase the transpiration rate, which causes smaller plants with lower production.
- Strong winds lead to soil erosion which lead to lower production
- Strong winds lead to lower temperatures – lower photosynthesis-lower production
- Strong winds lead to lower pollination – lower production
- Strong winds lead distribute diseases – limit production

Any 2 × 2

2.3 **Economic properties of soil**

2.3.1 Soil is indestructible

2.3.2 Soil is durable

2.3.3 Soil is subject to the law of diminishing returns

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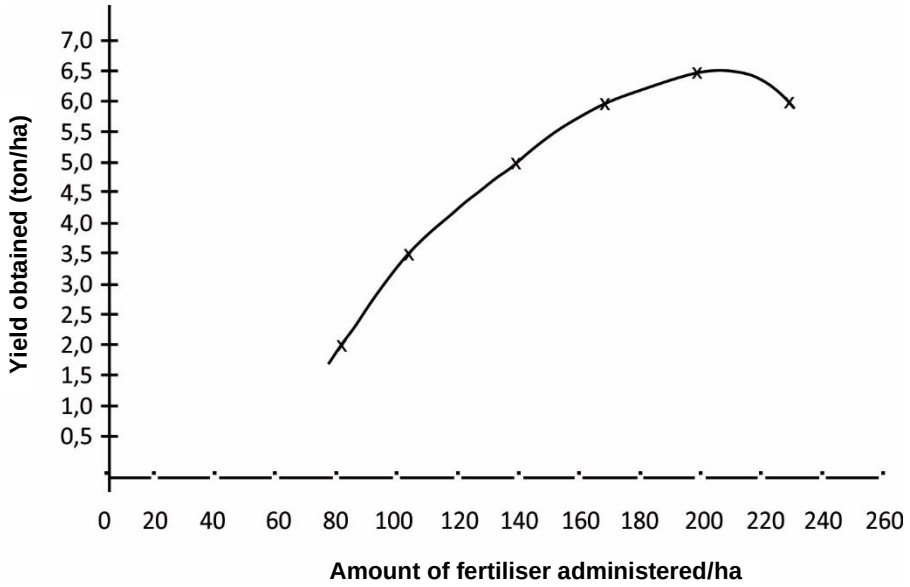
2.4 2.4.1 **Line graph**

Line graph to show the relationship between fertiliser administered and yield obtained for the last six years



Marking of graph	**Yes**	**No**
Heading	1	0
X-axis labelled with unit	1	0
Y-axis labelled with unit	1	0
Correct calibration	1	0
Line graph	1	0
Correct positioning on line graph	1	0

2.4.2 **Explain conclusions of producer**

- In 2016 and 2017 the fertiliser was increased by 30 kg/ha and each year the yield increased by 1,5 ton/ha. The yield increased in proportion to the fertiliser administered.
- In 2018 the fertiliser was again increased by 30 kg/ha, but the yield increased by 1 ton/ha only. The yield still increased, but not in proportion to the amount of fertiliser administered.
- In 2019 the fertiliser was still increased by 30 kg/ha, but now the increase in yield was only 0,5 ton/ha and after 2020 there was even a decrease in yield.
- Therefore, the optimal yield is 6 ton/ha with 170 kg/ha fertiliser administered.

OR

- Initially the yield annually increased in proportion to the increase in fertiliser.
- Thereafter the yield still increased, but the actual product increase (marginal yield) per unit decreased as the units increased. A decrease in yield even occurred in the last year.
- Therefore, the conclusion of the farmer is that the optimal yield is 6 ton/ha with 170 kg/ha fertiliser.

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2.4.3 **Explanation of contribution to soil pollution**

- The data shows that too much fertiliser was administered during the last 2 years.
- The plants could not utilise the excess fertiliser.
- The excess fertiliser, therefore, ended up in the soil solution and polluted the soil as well as the groundwater.

2.5 2.5.1 **Define contour farming**

Contour farming is the practice to make contour walls across a hill (slope) so that the contour walls remain at the same height and do not go up or down the hill.

OR

It is the practice of using contours to change the direction of run-off water from directly downhill to around the gradient of the hill.

2.5.2 **Two reasons for contour farming or advantages of contours**

- Reduce surface erosion.
- Reduce water run-off **OR** increase water infiltration.

2.5.3 **Three cultivation practices on steep slopes**

- No cultivation
- Strip cultivation
- Terraces
- Windbreaks
- Cover crops
- Ridges

Any 3

2.6 **Four factors to be taken into account when dividing tillable soil into homogeneous units**

- tillability
- draining requirements
- irrigability
- preparation
- suitability for crops
- fertilising requirements

Any 4

2.7 2.7.1 **Type of farming system**

Commercial farming system

2.7.2 **Reason from the passage**

Products are sold

2.7.3 **Type of farming method**

Intensive

2.7.4 **One reason from passage for the answer to Question 2.7.4**

Labour-intensive harvesting methods

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2.7.5 **What is a niche crop?**

- It is a product that focuses on a market that is usually small.
- It is a product that focuses on a specific customer group.
- It is a limited/unique product.

Any 1

2.7.6 **Reasons for a niche market strategy and not a commodity market strategy**

- Get away from competition with large competitors.
- For the sake of economic survival – does not want large, new debt.
- Development of an own quality mark/trademark/specialisation.
- Development of a regional product with its own unique characteristics.
- The demand for traceability is becoming more and more important.
- Technological progress supports a niche market strategy very well.

Any 4

2.7.7 **The starter pack is not an economic unit because:**

- it produces too little to make enough money for the farmer and his/her family members to survive.
- only enough is produced from the pack to prove whether or not it would survive in the area.

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QUESTION 3 SUSTAINABILITY, BUSINESS PLAN, ENTREPRENEURSHIP AND MARKETING

3.1 3.1.1 **Two reasons why Ina Lessing started the enterprise**

- They struggled financially/their finances were not enough.
- To send the five children to university – for education.

3.1.2 **Four characteristics that distinguish her as a successful entrepreneur**

- perseverance
- initiative/creative/innovative
- energetic/enthusiastic
- hard-working
- willing to take risks
- inspiring

Any 4

3.1.3 **Three types of risk**

- business risks
- financial risks
- political/legal risks

3.1.4 **Applying SWOT analysis to Ina's enterprise**

S =	strengths	= knowledge of home economics, born entrepreneur, etc.
W =	weaknesses	= poor finances initially, etc.
O =	opportunities	= many farm stalls for marketing, etc.
T =	threats	= lack of management skills for enterprise for the future, etc.

3.1.5 **Five pillars of sustainability of enterprise**

- productivity
- risk management
- conservation
- economic viability
- social acceptance

3.2 3.2.1 **Marketing channel of Ina Lessing**

Directly to the consumer

3.2.2 **Reasons why they were not successful**

- Their products were unknown.
- They were unknown in the industry.
- They were inexperienced in the marketing methods/marketing channels.
- They did not have enough funds to conduct a large marketing campaign.

Any 2

3.2.3 **Four variables in the marketing mix**

- place
- promotion
- price
- product

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3.2.4 **Four advantages of free marketing for the producer**

- usually payment is in the form of cash
- usually there is little delay in the receipt of payment
- the producer can show initiative and driving force
- the price is determined by supply and demand – therefore they sometimes get high prices
- producer is free to produce what he/she wants
- better competition results in better products that result in better prices
- new ideas and products are developed easily

Any 4

3.2.5 **Four marketing functions and their purpose from the passage**

- transport = distribution of products
- bottling = storage
- packaging = easier to handle
- processing = convert products into other forms for use
- preservation = keep away microbiological organisms
- sales = for finances
- marketing = introduction of the product

Any 4

3.3 3.3.1 **Explain three phenomena that contribute to growth in agritourism**

- people who can spend money, spend more time on leisure, adventure and experiences
- during holidays urbanites visit the country to look for space and an easier lifestyle
- people are nostalgic about the country and want to expose their children to it/farm products
- Training tours

3.3.2 **The purpose of suppliers of agritourism with agritourism**

- increase in income/to make money
- job creation
- conservation of resources
- socio-economic development/training of employees
- improving infrastructure of community
- preventing the depopulation of the country
- Diversification

Any 3

3.3.3 **How agritourism positively contributes to the community**

- job creation for local residents
- educational value
- financial advantages for residents
- training opportunities for residents
- better infrastructure for local residents
- Better use of marginal soils for housing tourists

Any 3

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QUESTION 4 FARM MANAGEMENT, FINANCIAL PLANNING AND ADDING VALUE TO HARVESTS

4.1 4.1.1 **Type of financial record**
Cash flow budget

4.1.2 **Explanation of the answer to Question 4.1.1, i.e., a budget**
A budget is an estimate of an enterprise's expected income and expenses over a specific period in the future, as indicated in the statement.
A cash flow statement shows actual income and expenses.

4.1.3 **Calculation of amounts numbered (a) to (e)**
(a) R80,00 × 3 = R240,00
(b) R20,00 × 10 = R200,00
(c) 4 × R480,00 = R1 920,00
(d) R13 375,00
(e) R40 000,00

4.1.4 **Calculation of profit or loss (show formula + all the calculations)**
Profit/loss = total income – total expenses
= R40 000,00 – R13 375,00
= R26 625,00 profit

4.2 4.2.1 A

4.2.2 E

4.2.3 D

4.2.4 C

4.2.5 B

4.2.6 F

4.3 4.3.1 **Why is planning regarded as a dynamic process?**
Planning must be repeated as conditions change, because agricultural production is a dynamic process.

4.3.2 **Arrange actions in the correct order:**
(a) 4 (b) 2 (c) 5 (d) 6 (e) 1 (f) 3

4.4 **Four requirements for efficient disciplinary action**
- Action must be aimed at the offence and not the employee.
- Action must take place as soon as possible after the offence.
- Action must be consistent at all times.
- Keep relationship with employee as normal as possible – as if no offence has taken place.
- Employee must be aware of action against him/her if he/she commits a certain offence.

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4.5 4.5.1 **Four advantages of adding value in agricultural businesses**

- Higher income is received
- Products are available throughout the year
- A longer shelf life is obtained
- Create better name value
- Job creation

Any 4

4.5.2 **Two disadvantages of processing products**

- It is difficult to get capital for new industries.
- New products have to compete with already established products in the market.
- Owner has a lack of expertise.

Any 2

4.6 **Factors that determine the demand for a product (meat)**

- The higher the price of meat, the lower the demand for it.
- The higher the consumer income, the higher the demand for meat.
- The higher the number of consumers, the higher the demand for meat.
- Changes in consumers' preferences and tastes, e.g., preference for white meat would reduce the demand for red meat in the picture.
- Good advertising would increase the demand for meat.
- Thorough research, e.g., cancer research may increase or reduce the demand for meat.
- Sociological factors, e.g., age, level of education of consumers may increase or reduce the demand for meat.
- Legislation, e.g., against imports of meat may increase or reduce demand.

Any 4

4.7 4.7.1 **Primary agricultural sector**

- the cultivation of vegetables
- the production of mohair

4.7.2 **Secondary agricultural sector**

- abattoirs
- milling industry

4.7.3 **Tertiary agricultural sector**

- compost and organic fertiliser
- trucks and heavy vehicles

Total: 200 marks

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