These marking guidelines consist of 10 pages.
## SECTION A

### QUESTION 1

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

(10 x 2) (20)

<table>
<thead>
<tr>
<th>1.2</th>
<th>1.2.1</th>
<th>G ✚✚</th>
<th>1.2.2</th>
<th>A ✚✚</th>
<th>1.2.3</th>
<th>C ✚✚</th>
<th>1.2.4</th>
<th>D ✚✚</th>
<th>1.2.5</th>
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<tr>
<th>1.3</th>
<th>1.3.1</th>
<th>Innovation/creativity ✚✚</th>
<th>1.3.2</th>
<th>Budget ✚✚</th>
<th>1.3.3</th>
<th>Multiple alleles ✚✚</th>
<th>1.3.4</th>
<th>Family selection ✚✚</th>
<th>1.3.5</th>
<th>Genetic modification/engineering/manipulation ✚✚</th>
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<tr>
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<th>Co-operative ✚</th>
<th>1.4.2</th>
<th>Occupational Health and Safety ✚</th>
<th>1.4.3</th>
<th>Species crossing ✚</th>
<th>1.4.4</th>
<th>Heterozygosity ✚</th>
<th>1.4.5</th>
<th>Gene ✚</th>
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(5 x 1) (5)

**TOTAL SECTION A:** 45
SECTION B

QUESTION 2: AGRICULTURAL MANAGEMENT AND MARKETING

2.1 Table on marketing

2.1.1 Marketing system used
- Farmer A - Free marketing ✓
- Farmer B - Controlled marketing ✓ (1)

2.1.2 Reason for the system used by farmer B
Price is determined/controlled by the government ✓ (1)

2.1.3 Justification for mass marketing
Farmer B is reaching a wide range of consumers (larger markets) via the internet ✓ (1)

2.1.4 TWO ways to facilitate marketing in rural areas
- Improve roads/infrastructure ✓
- Improve market information through technology ✓
- Transportation of produce in vehicles with cooling facilities. ✓
- Cold storage depots ✓
- Market collectively by combining loads ✓ (Any 2) (2)

2.2 TWO roles of legislation in ensuring effective marketing
- Ensures increased market access to all participants ✓ (2)
- Makes provision for quality control over imports and exports of products ✓

2.3 Component of a business plan

2.3.1 Title/cover page ✓ (1)

2.3.2 Human resource plan ✓ (1)

2.3.3 Financial plan ✓ (1)

2.4 THREE common mistakes when drawing a business plan
- Provision of unrealistic assumptions/over-ambitious ✓
- Not being able to identify the potential risks/hiding risks ✓
- Provision of too much unnecessary information/leaving gaps/being too vague ✓
- Committing budget and cash flow errors/incomplete financials ✓
- No information on competitors/not highlighting competition ✓
- Use of incorrect format/poor writing/incomplete plan ✓
- Inadequate/poor research ✓
- Insufficient technical details ✓ (Any 3) (3)
2.5 Supply and demand of peaches

2.5.1 Line graph showing the supply and demand of peaches

![line graph showing supply and demand of peaches]

Criteria/rubric/marking guidelines
- Correct heading ✓
- X axis - correctly calibrated and labelled (Quantities) ✓
- Y axis - correctly calibrated and labelled (Price) ✓
- Correct unit (R and kg) ✓
- Line graph ✓
- Accuracy ✓

(6)

2.5.2 Determination of the equilibrium price
R2,50 ✓

(1)

2.5.3 Situation when price is below the equilibrium price
- The quantity demanded is high ✓ and the quantity supplied is low ✓
- Quantity supplied is low ✓ and quantity demanded is high ✓

(2)

2.6 Linking statements to factors hampering marketing of products

2.6.1 Perishability ✓

(1)

2.6.2 Political situation ✓

(1)

2.6.3 Lack of control over production ✓

(1)

2.6.4 Bulkiness ✓

(1)
2.7 THREE requirements of a container for packaging
- It must be clean/dry/undamaged ✓
- Not import any foreign taste/odour to the product ✓
- It must be free from signs of fungal growth ✓
- It must be strong/rigid ✓

(Any 3) (3)

2.8 Type of consumers

2.8.1 Retailers ✓ (1)
2.8.2 Food processing companies/factories ✓ (1)
2.8.3 Exporters ✓ (1)

2.9 The law of demand
- The higher the price ✓ the less the people/consumers will demand the product ✓

OR
- The lesser the price ✓ the more the people/consumers will buy the product ✓

(2) [35]

QUESTION 3 : PRODUCTION FACTORS

3.1 Two groups of farmers

3.1.1 Factor of land addressed by the two scenarios
Land availability/ area of production ✓ (1)

3.1.2 TWO benefits of the practices by Group B contributing to higher production
- Able to work on a large area faster ✓
- Use of machinery is more effective ✓
- More cost effective to produce ✓
- Specialisation ✓ (Any 2) (2)

3.1.3 TWO techniques for Group A that can improve production
- Use of scientific methods/technology ✓
- Consolidation of small units ✓ (2)

3.1.4 Economic characteristic negatively affected by monoculture and continuous cultivation
Production potential of the land ✓ (1)

3.1.5 TWO functions of land as a production factor
- Provides food ✓
- Provides raw materials ✓
- Provides space ✓
- Source of raw minerals ✓ (Any 2) (2)
3.2 Highly ethical and efficient work force

3.2.1 The type of permanent labour who operates an advanced tractor
Skilled labour ✓

3.2.2 Indication of the expertise needed by the employee
Technical/operational ✓

3.2.3 Act of misconduct
Sleeping on duty ✓

3.2.4 Legislation that the employer would use to justify disciplinary steps
Basic Conditions of Employment Act 75 of 1997 ✓

3.2.5 TWO problems related to farm labour
- Social/HIV and AIDS ✓
- Scarcity ✓
- Employers’ concerns ✓
- Competition from industries/economic migrants ✓
- Lack of training/education ✓
- Poor labour management ✓
- Safety ✓
- Poor working conditions ✓ (Any 2)

3.2.6 TWO actions an employer should take
- Provide incentives ✓
- Rewards for good work ✓
- Provide training/education ✓
- Improve working conditions ✓
- Improved living conditions ✓
- Mechanisation ✓
- Labour management ✓ (Any 2)

3.3 Management

3.3.1 Risk management strategy
Diversification ✓

3.3.2 Reason for the management strategy
There are a number of enterprises in one farm/agri-tourism ✓

3.3.3 TWO primary sources of risk in a farming business
- Technical ✓
- Market/price ✓
- Financial ✓
- Production ✓
- Legal ✓
- Human resources ✓ (Any 2)
3.3.4 General business management skills applied by the manager

(a) Co-ordination/organisational ✓
(b) Analytic skills ✓
(c) Interpersonal/communication ✓

3.3.5 Definition of strategic management

Management that allows the business to anticipate ✓ and adapt to changes in the future ✓

OR

The process of developing strategies that allow a business to achieve its vision, mission and objectives ✓ and adapt to changing conditions ✓

3.4 Capital

3.4.1 Fixed capital

Land ✓

3.4.2 Two sources of capital

- Grant ✓
- Loan ✓

3.4.3 Problem of capital

Scarcity ✓

3.4.4 Term of repayment

Medium term/5 years ✓

3.4.5 Calculation of the profit made by the community in 5 years

- Turnover: R12 000 000 x 5 = R60 000 000 ✓
- Expenses: R4 000 000 x 5 = R20 000 000 ✓
  Interest: R2 000 000 x 5% = R100 000 ✓
- R2 000 000 + R100 000 = R2 100 000 ✓
- Turnover – expenses:
  R60 000 000 – R20 000 000 – R2 100 000 =
- Profit: R37 900 000 ✓
QUESTION 4: BASIC AGRICULTURAL GENETICS

4.1 Heterozygous pea plant (G) and a pure breed pea plant (g)

4.1.1 Genotype of each parent in the first crossing
- Parent 1 - Gg ✓
- Parent 2 - gg ✓

4.1.2 Punnett square determining the possible genotype of the offspring in the first crossing

<table>
<thead>
<tr>
<th>Gametes</th>
<th>G</th>
<th>g ✓</th>
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<tbody>
<tr>
<td>g</td>
<td>Gg</td>
<td>gg ✓</td>
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<td>g</td>
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Punnett square with gametes and offspring ✓

Marking Guideline
- Complete Punnett square with gametes and offspring ✓
- Correct gametes ✓
- Correct offspring ✓

4.1.3 Type of dominance in the cross
Complete dominance ✓

4.1.4 Reason for the type of dominance
50% of the seeds are yellow (G) ✓ and 50% of the seeds are green (g) ✓
OR
No intermediate/new colour ✓ as seeds resemble their parents ✓

4.1.5 Calculation of the percentage of heterozygous offspring
\[
\frac{2}{4} \times 100 = 50
\]

4.2 Identification of the breeding system

4.2.1 B ✓
4.2.2 A ✓
4.2.3 D ✓
4.2.4 C ✓
4.2.5 A ✓
4.3 Variation

4.3.1 TWO genetic processes causing variation
- Mutations ✓
- Meiosis/crossing over ✓
- Recombination of genes ✓
- Fertilisation ✓

(Any 2) (2)

4.3.2 TWO importance of variation
- Animals/plants with superior characteristics can be selected for breeding purposes ✓
- Helps to improve the progeny/offspring ✓
- Generate new varieties/breeds/cultivars ✓
- Maintains biodiversity ✓

(Any 2) (2)

4.3.3 Distinction between
Continuous variation
- Displays a complete range of quantitative characteristics ✓

(1)

Discontinuous variation
- Qualitative characteristics have a few clear cut/distinct forms/with no intermediate forms in between ✓

(1)

4.4 Selection

4.4.1 Group of cattle to be selected
Group with a mass of 250 kg ✓

(1)

4.4.2 Reason
It has a higher average mass/average mass higher than the herd ✓

(1)

4.4.3 Identification of the type of selection method
Mass selection ✓

(1)

4.4.4 Explanation of this selection method
- Selection based on the individuals with superior characteristics ✓ within the group ✓

(2)

4.4.5 TWO other selection methods
- Family selection ✓
- Pedigree selection ✓
- Progeny selection ✓
- Breeding values/EBV/biometrics ✓

(Any 2) (2)

4.5 GM

4.5.1 Identification of the year
2012/2013 ✓

(1)

4.5.2 Reason
An increase in yield/from 10.6 – 12t/ha ✓

(1)
4.5.3 **TWO advantages that Farmer B got from using GM maize**
- Yields increased ✓
- Increase started from 2012 ✓

(2)

4.5.4 **TWO important characteristics of GM maize crops**
- Resistant to herbicides ✓
- Not affected by insecticides ✓
- Crops have lower water requirements ✓
- Better adapted to the environment/region ✓

(Any 2) (2)

4.5.5 **Reason for the resistance against the use of GM’s**
- Health risks ✓
- Environmental risks ✓
- Ethical/socio-economic concerns ✓

(Any 1) (1)

[35]

TOTAL SECTION B: 105
GRAND TOTAL: 150