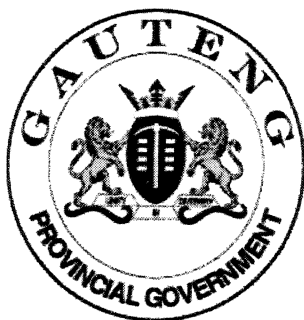


SENIOR CERTIFICATE EXAMINATION
SENIORSERTIFIKAAT-EKSAMEN



OCTOBER / NOVEMBER
OKTOBER / NOVEMBER

2004

**AGRICULTURAL
SCIENCE**

***LANDBOU-
WETENSKAP***

HG

802-1/0

AGRICULTURAL SCIENCE HG

12 pages
12 bladsye



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GAUTENGSE DEPARTEMENT VAN ONDERWYS

SENIORSERTIFIKAAT-EKSAMEN

LANDBOUWETENSKAP HG

TYD: 3 uur

PUNTE: 400

BENODIGHEDE:

- 'n Sakrekenaar

INSTRUKSIES:

- Beantwoord ALLE vrae.
- Beantwoord Vraag 1A op die **antwoordblad** op die **binneste omslag** van die **antwoordboek**.
- Skryf asseblief leesbaar.
- Nommer jou antwoorde streng volgens die nommerstelsel wat in hierdie vraestel gebruik word.

AFDELING A

**VRAAG 1A
MEERVOUDIGE KEUSEVRAE**

Verskeie moontlike antwoorde word vir Vrae 1.1 tot 1.30 verstrek, waarvan slegs EEN korrek is. Dui die korrekte antwoord van jou keuse aan deur 'n kruisie (X) oor die toepaslike letter langs die ooreenstemmende nommer op die **antwoordblad** op die **binneste omslag** van die **antwoordboek** te maak, bv:

A	B	C	D
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1.1 Die grasveldtipe in die hoë-reënvalstreke van Suid-Afrika staan algemeen bekend as _____.

- A. bosveld
- B. soetveld
- C. suurveld
- D. gemengde veld

1.2 Die grootste dam, in m³, in die R.S.A. is die _____.

- A. P.K. le Rouxdam / Vanderkloofdam
- B. Hendrik Verwoerddam / Gariepdam
- C. Fanie Bothadam / Tzaneenddam
- D. Vaaldam

GAUTENG DEPARTMENT OF EDUCATION

SENIOR CERTIFICATE EXAMINATION

AGRICULTURAL SCIENCE HG

TIME: 3 hours

MARKS: 400

REQUIREMENTS:

- Calculator

INSTRUCTIONS:

- Answer ALL questions.
- Answer Question 1A on the **answer sheet** on the **inside cover** of the **answer book**.
- Please write legibly.
- Number your answers in strict accordance with the numbering system used in this paper.

SECTION A

QUESTION 1A
MULTIPLE-CHOICE QUESTIONS

A number of possible answers are given to each of Questions 1.1 to 1.30 of which only ONE is correct. Indicate the correct answer by making a cross (X) over the appropriate letter next to the corresponding number on the **answer sheet** on the **inside cover** of your **answer book**, e.g.

X A	B	C	D
--------	---	---	---

1.1 The type of grass veld in the high rainfall areas of South Africa is generally known as _____.

- A. bushveld
- B. sweet veld
- C. sour veld
- D. mixed veld

1.2 The largest dam, in m³, in the R.S.A. is the _____ dam.

- A. P.K. le Roux / Vanderkloof
- B. Hendrik Verwoerd / Gariep
- C. Fanie Botha / Tzaneen
- D. Vaal

1.3 'n Voorbeeld van 'n nat grondprofiel is _____.

- A. $\frac{A}{C}$
- B. $\frac{O}{G}$
- C. $\frac{B}{C}$
- D. $\frac{A}{R}$

1.4 Die persentasie suurstof in die atmosfeer is ongeveer _____.

- A. 10%
- B. 20%
- C. 30%
- D. 34%

1.5 Die kation wat die oorwegendste in brakgrond aangetref word, is _____.

- A. H
- B. Mg
- C. Ca
- D. Na

1.6 In die warm, droë streke van die wêreld is die humusinhoud van die grond oor die algemeen _____.

- A. baie hoog
- B. hoog
- C. gemiddeld
- D. laag

1.7 'n Voorbeeld van 'n ondergrondhorisont is 'n _____.

- A. O-horisont
- B. E-horisont
- C. melaniese horisont
- D. vertiese horisont

1.8 Plante neem hoofsaaklik stikstof in die vorm van _____ op.

- A. nitraat
- B. nitriet
- C. ammonium
- D. ureum

- 1.3 An example of a wet soil profile is _____.
- $\frac{A}{C}$
 - $\frac{O}{G}$
 - $\frac{B}{C}$
 - $\frac{A}{R}$
- 1.4 The percentage of oxygen in the atmosphere is approximately _____.
- 10%
 - 20%
 - 30%
 - 34%
- 1.5 The cation predominant in brackish soil is _____.
- H
 - Mg
 - Ca
 - Na
- 1.6 In the warm, dry regions of the world the humic content of the soil is generally _____.
- very high
 - high
 - average
 - low
- 1.7 An example of a subsoil horizon is _____.
- an O horizon
 - an E horizon
 - a melanic horizon
 - a vertic horizon
- 1.8 Plants absorb their nitrogen mainly in the form of _____.
- nitrate
 - nitrite
 - ammonium
 - urea

- 1.9 Die kleur wat algemeen met hoë grondvrugbaarheid vereenselwig word, is _____.
- A. wit
 - B. geel
 - C. rooi tot donkerbruin
 - D. grys
- 1.10 Die plantvoedingselement wat vrugbaarheid by plante bevorder, is _____.
- A. fosfor
 - B. magnesium
 - C. yster
 - D. mangaan
- 1.11 Die primêre geslagsklier van die voortplantingstelsel van die bul is die _____.
- A. penis
 - B. klier van Cowper
 - C. epididimis
 - D. testis
- 1.12 Die bronstigheidskringloop by koeie word normaalweg gemiddeld elke _____ dae herhaal.
- A. 15
 - B. 21
 - C. 26
 - D. 31
- 1.13 Bevrugting vind by skape in die _____ plaas.
- A. vagina
 - B. serviks
 - C. buise van Fallopius
 - D. uterus
- 1.14 Indien 'n koei gedurende die oggend tekens van bronstigheid toon, is die optimum tydperk vir inseminasie _____.
- A. dadelik
 - B. eers dieselfde aand
 - C. eers die volgende oggend
 - D. eers die volgende aand

1.9 The colour which is generally associated with high soil fertility is _____.

- A. white
- B. yellow
- C. red to dark-brown
- D. grey

1.10 The plant nutritional element which stimulates fertility in plants is _____.

- A. phosphorus
- B. magnesium
- C. iron
- D. manganese

1.11 The primary sex gland of the reproductive system of a bull is the _____.

- A. penis
- B. Cowper's gland
- C. epididymis
- D. testis

1.12 The oestrus cycle of a cow is normally repeated every _____ days.

- A. 15
- B. 21
- C. 26
- D. 31

1.13 Conception in sheep takes place in the _____.

- A. vagina
- B. cervix
- C. Fallopian tubes
- D. uterus

1.14 If oestrus is observed in a cow during the morning, the optimum time for insemination is _____.

- A. immediately
- B. only that evening
- C. only the following morning
- D. only the following evening

- 1.15 Die gesamentlike opening vir die spysverteringskanaal en die urinogenitale stelsel by die hoender staan as die _____ bekend.
- A. kloaka
 - B. oesophagus
 - C. pilorus
 - D. anus
- 1.16 'n Voorbeeld van 'n proteïenryke kragvoer is _____.
- A. mieliemeel
 - B. vismeel
 - C. sitrusmeel
 - D. lusernmeel
- 1.17 Ragitis is 'n metaboliese siekte wat gewoonlik weens 'n tekort aan _____ by jong diere voorkom.
- A. vitamien E
 - B. kalsium
 - C. vitamien A
 - D. kalium
- 1.18 Die maag van 'n herkouer wat met die enkelmaag van die nie-herkouer vergelyk kan word, is die _____.
- A. retikulum
 - B. abomasum
 - C. omasum
 - D. rumen
- 1.19 'n Voorbeeld van 'n biologiese anti-oksidadant is _____.
- A. vitamien E
 - B. natrium
 - C. koper
 - D. sink
- 1.20 'n Gereduseerde koënsiem betrokke by fotosintese, is _____.
- A. NADP
 - B. ADP
 - C. ATP
 - D. NADPH₂
- 1.21 Die persentasie stikstof in die bemestingstof ureum is _____.
- A. 26%
 - B. 56%
 - C. 36%
 - D. 46%

- 1.15 The common opening of both the alimentary canal and the uro-genital system of a fowl is known as the _____.
- cloaca
 - oesophagus
 - pylorus
 - anus
- 1.16 An example of a protein rich concentrate is _____.
- maize-meal
 - fishmeal
 - citrus meal
 - lucerne meal
- 1.17 Rachitis is a metabolic disease which is usually caused by a deficiency of _____ in young animals.
- vitamin E
 - calcium
 - vitamin A
 - potassium
- 1.18 The stomach of a ruminant which may be compared with the simple stomach of a non-ruminant, is the _____.
- reticulum
 - abomasum
 - omasum
 - rumen
- 1.19 An example of a biological anti-oxidant is _____.
- vitamin E
 - sodium
 - copper
 - zinc
- 1.20 A reduced co-enzyme involved in photosynthesis, is _____.
- NADP
 - ADP
 - ATP
 - NADPH₂
- 1.21 The percentage of nitrogen in the fertilizer known as urea is _____
- 26%
 - 56%
 - 36%
 - 46%

- 1.22 Wat is die eenheidswaarde van die bemestingstof kaliumsulfaat (40%), indien die prys R380,00 per ton is?
- A. R9,50
 - B. R1,05
 - C. R380,00
 - D. R152,00
- 1.23 Die chemiese samestelling van gips is _____.
- A. CaCO_3
 - B. K_2SO_4
 - C. MgCO_3
 - D. CaSO_4
- 1.24 Die generatiewe kern in 'n ontkiemende stuifmeelkorrel by plante gee aanleiding tot _____ manlike gamete.
- A. 4
 - B. 3
 - C. 2
 - D. 1
- 1.25 Die boonste gewysigde gedeelte van die blomsteel waaraan die kranse blomblare gedra word, is die _____.
- A. blomsteel
 - B. blombodem
 - C. kelkbaarkrans
 - D. vrugblaarkrans
- 1.26 Die energie wat plante vir die proses van fotosintese benodig, word verkry van _____.
- A. sonlig
 - B. water
 - C. koolstofdiksied
 - D. glukose
- 1.27 Die vergoeding wat 'n boer as bestuurder van sy boerdery-onderneming ontvang, staan as _____ bekend.
- A. bruto wins
 - B. netto wins
 - C. arbeidsloon
 - D. salaris

- 1.22 What is the unit value of the fertilizer potassium sulphate (40%) if the price is R380,00 per ton?
- A. R9,50
 - B. R1,05
 - C. R380,00
 - D. R152,00
- 1.23 The chemical composition of gypsum is _____.
- A. CaCO_3
 - B. K_2SO_4
 - C. MgCO_3
 - D. CaSO_4
- 1.24 The generative nucleus in a germinating pollen grain in plants gives rise to _____ male gametes.
- A. 4
 - B. 3
 - C. 2
 - D. 1
- 1.25 The modified top part of the pedicel on which the whorls of the floral leaves are carried, is known as the _____.
- A. pedicel
 - B. receptacle
 - C. sepal whorl
 - D. carpel whorl
- 1.26 The energy plants require for the process of photosynthesis is obtained from _____.
- A. sunlight
 - B. water
 - C. carbon dioxide
 - D. glucose
- 1.27 The remuneration which a farmer receives as a manager of his farm is known as _____.
- A. gross profit
 - B. net profit
 - C. labour wages
 - D. salary

- 1.28 Bedryfskapitaal op 'n plaas sluit in ____.
- A. vrugtebome
 - B. trekkers
 - C. aanteevee
 - D. onkruidodders
- 1.29 Die punt waar die vraag- en aanbodkrommes mekaar sny, staan as die ____ bekend.
- A. plafonprys
 - B. markewewig
 - C. vloerprys
 - D. surplusverwydering
- 1.30 Watter een van die volgendes is 'n belangrike rede vir die vloeï van arbeiders van die landboubedryf na nywerhede?
- A. Beter werksomstandighede en diensvoorwaardes
 - B. Werkers is beter geletterd.
 - C. Beter arbeidsbestuur
 - D. Minder vermoeiende werk
- 30x2=[60]

VRAAG 1B

- 1.31 Skryf die korrekte term / woord vir elk van die volgende stellings neer.
- 1.31.1 Die endokriene kliere wat die hormone insulien en glukogeen afskei
 - 1.31.2 Die hormoon wat die afskeiding van succus entericus reguleer
 - 1.31.3 Die koolhidraat wat in die lewer en spiere van die diere gestoor word
 - 1.31.4 Die element wat 'n bestanddeel is van aminosuur-sisteïen
 - 1.31.5 Groenvoer wat gepreserveer en gestoor is om die voginhoud en vlugtige vetsure te behou
 - 1.31.6 Nie-identiese tweeling waarvan die vroulike dier (vers) steriel is
 - 1.31.7 Die tipe seldeling wat plaasvind direk na bevrugting
 - 1.31.8 Die proses waartydens water deur die plant se blare verlore gaan
 - 1.31.9 Die druk wat voorkom in plantselle weens waterabsorpsie
 - 1.31.10 Die tipe plant wat manlike of vroulike blomme dra
- 10x2=[20]

- 1.28 Working capital on a farm includes _____.
- fruit trees
 - tractors
 - breeding stock
 - herbicides
- 1.29 The point where the demand and supply lines cross, is known as the _____.
- ceiling price
 - market equilibrium
 - floor price
 - surplus removal
- 1.30 Which one of the following is an important reason for the flow of labourers from agriculture to industry?
- Better working and service conditions
 - Workers are more literate.
 - Better labour management
 - Less strenuous work

30x2=[60]

QUESTION 1B

- 1.31 Write down the correct term / word for each of the following statements.
- 1.31.1 The endocrine glands which secrete the hormones insulin and glucagon
 - 1.31.2 The hormone which regulates the secretion of succus entericus
 - 1.31.3 The carbohydrate stored in the liver and muscles of animals
 - 1.31.4 A constituent of the amino acid cysteine
 - 1.31.5 Green fodder which is preserved and stored to preserve moisture and volatile fatty acids
 - 1.31.6 Non-identical twins when one of the sexes is a sterile heifer
 - 1.31.7 The type of cell division which takes place just after fertilisation
 - 1.31.8 The process by which water is lost through the leaves of plants
 - 1.31.9 The pressure that occurs in plant cells as a result of water absorption
 - 1.31.10 The type of plant bearing either male or female flowers

10x2=[20]

- 1.32 Skryf die letter neer van die **beskrywing** in **Kolom B** wat die beste pas by die **term** in **Kolom A**.

KOLOM A		KOLOM B	
1.32.1	Enterokinase	A	Glukose en galaktose
1.32.2	Pankreas	B	Gestoor in lewer
1.32.3	Paratis	C	Osmotiese regulering
1.32.4	Glikogeen	D	Fruktose
1.32.5	Yster	E	Insulien
1.32.6	Natrium	F	Tripsinogeen na tripsien
1.32.7	Leydig-selle	G	Bevrugting
1.32.8	Ampulla	H	Hemoglobien
1.32.9	Laktose	I	Voeding en ontwikkeling van sperms
1.32.10	Selle van Sertoli	J	Speeksel
		K	Progesteron
		L	Testosteron

10x2=[20]

TOTAAL VIR AFDELING A: [100]

- 1.32 Write down the letter of the **description** in **Column B** which best suits the **term** in **Column A**.

COLUMN A		COLUMN B	
1.32.1	Enterokinase	A	Glucose and galactose
1.32.2	Pancreas	B	Stored in liver
1.32.3	Parotis	C	Osmotic regulation
1.32.4	Glucogen	D	Fructose
1.32.5	Iron	E	Insulin
1.32.6	Sodium	F	Trypsinogen to trypsin
1.32.7	Leydig-cells	G	Fertilisation
1.32.8	Ampulla	H	Haemoglobin
1.32.9	Lactose	I	Feeding and development of sperms
1.32.10	Cells of Sertoli	J	Saliva
		K	Progesterone
		L	Testosterone

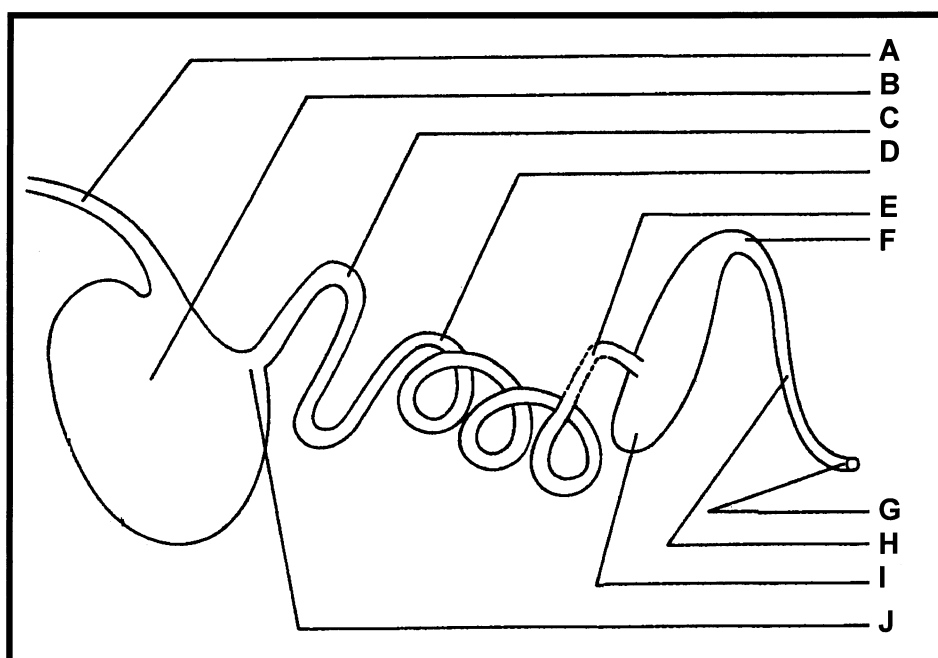
10x2=[20]

TOTAL FOR SECTION A: [100]

AFDELING B

VRAAG 2

- 2.1 Skryf die ekonomiese kenmerke van grond neer. (7)
- 2.2 Noem die onderskeie vorme van kapitaal op 'n plaas en gee 'n toepaslike voorbeeld van elke vorm. (6)
- 2.3 Waarop dui 'n geelkleurige grond? (7)
- 2.4 Waarom het die sandfraksie in grond so 'n klein invloed op die chemiese eienskappe van grond? (4)
- 2.5 Bespreek kalium (K) kortliks as voedingselement vir plante wat betref die
- 2.5.1 belangrikheid daarvan. (5)
- 2.5.2 simptome weens 'n tekort daaraan. (2)
- 2.6 Die onderstaande diagram stel die spysverteringskanaal van 'n vark voor. Benoem A – J. (10)



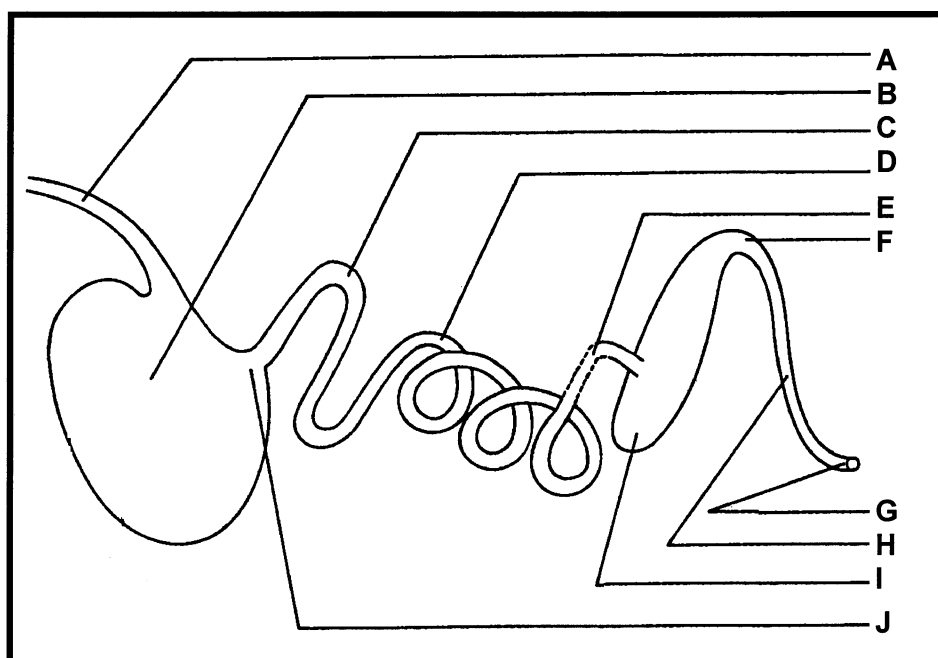
- 2.7 Bespreek DRIE gunstige toestande vir die teenwoordigheid van mikro-organismes in die retikulorum. (9)

[50]

SECTION B

QUESTION 2

- 2.1 Give the economic characteristics of soil. (7)
- 2.2 List the different types of farm capital, and give a suitable example of each type. (6)
- 2.3 What is indicated by a yellow-coloured soil? (7)
- 2.4 Why does the sand fraction in soil have such a small influence on the chemical properties of the soil? (4)
- 2.5 Briefly discuss potassium (K) as a nutritional element for plants, with regard to
- 2.5.1 its importance. (5)
- 2.5.2 the symptoms of a deficiency thereof. (2)
- 2.6 The diagram below represents the alimentary canal of a pig. Provides labels for A – J.



- 2.7 Discuss THREE favourable conditions for the existence of micro-organisms in the reticulorumen. (9)

[50]

VRAAG 3

- 3.1 Bespreek die negatiewe invloed van 'n kleitekstuur op die produktiwiteit van grond. (14)
- 3.2 'n Boer koop 'n sakkie kunsmis waarop die volgende kode verskyn:
- 4 : 3 : 1 (32) + Zn**
- 3.2.1 Verduidelik watter DRIE plantvoedingstowwe onderskeidelik deur die verhouding: 4 : 3 : 1 verteenwoordig word. (3)
- 3.2.2 Noem die plantvoedingstof, en bereken die persentasie daarvan wat die drie (3) in die verhouding 4 : 3 : 1 aandui. (Toon jou volledige berekening.) (3)
- 3.2.3 Gee die samevattende naam vir die drie plantvoedingstowwe wat jy in jou antwoord op Vraag 4.2.1 genoem het. (2)
- 3.2.4 Wat verteenwoordig die getal 32 wat na die verhouding: 4 : 3 : 1 tussen hakies aangetoon word? (2)
- 3.3 Bespreek die gebruik van dolomietiese landboukalk. (5)
- 3.4 Bespreek die funksies van soutsuur (HCl) in die maag van die vark. (11)
- 3.5 Noem SES funksies van vitamien D in 'n dier se liggaam. (6)
- 3.6 In watter VIER vorms kom water in die grond voor? (4)
- [50]**

VRAAG 4

- 4.1 Watter faktore lewer 'n bydrae tot die natuurlike weidingstipes wat in 'n streek voorkom? (4)
- 4.2 Omskryf die begrip **plantgemeenskap**. (7)
- 4.3 Noem die elemente van bestuur. (6)
- 4.4 Watter faktore sal die vraag na 'n produk bepaal? (6)
- 4.5 Bespreek die voordelige uitwerking van plaasmis op grond. (12)
- 4.6 Bespreek die redes vir die bandplasing van bemestingstowwe. (6)
- 4.7 Noem die simptome van ragitis. (9)
- [50]**

QUESTION 3

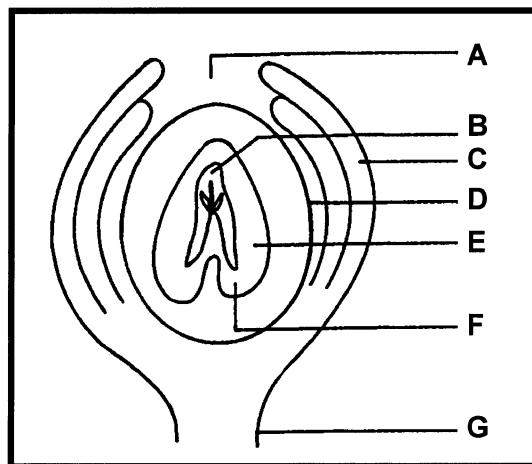
- 3.1 Discuss the negative influence of a clay texture on the productivity of soil. (14)
- 3.2 A farmer buys a bag of fertilizer mixture on which the following code appears:
- 4 : 3 : 1 (32) + Zn**
- 3.2.1 Explain which THREE plant nutrients are represented by the proportions: 4 : 3 : 1 respectively. (3)
- 3.2.2 Name the plant nutrient, and calculate the percentage of the nutrient, indicated by the three (3) in the proportion 4 : 3 : 1. (Show all your calculations.) (3)
- 3.2.3 Give the collective name for the three plant nutrients mentioned in your answer to Question 4.2.1. (2)
- 3.2.4 What is represented by the number 32 in brackets after the ratio: 4 : 3 : 1? (2)
- 3.3 Discuss the use of dolomitic agricultural lime. (5)
- 3.4 Discuss the functions of hydrochloric acid (HCl) in the stomach of a pig. (11)
- 3.5 State SIX functions of vitamin D in an animal's body. (6)
- 3.6 In which FOUR forms is water found in soil? (4)
- [50]**

QUESTION 4

- 4.1 Which factors contribute to the type of natural grazing which occurs in a region? (4)
- 4.2 Define the term **plant community**. (7)
- 4.3 List the elements of management. (6)
- 4.4 Which factors will determine the demand for goods? (6)
- 4.5 Discuss the beneficial effect of farm manure on soil. (12)
- 4.6 Discuss the reasons for the band application of fertilizers. (6)
- 4.7 State the symptoms of rachitis. (9)
- [50]**

VRAAG 5

- 5.1 Onder watter omstandighede sal sprinkelbesproeiing die beste resultate lewer? (6)
- 5.2 Watter inligting is nodig, alvorens 'n dreineringsstelsel aangelê kan word? (5)
- 5.3 Noem die vereistes vir 'n goeie mark vir landbouprodukte. (10)
- 5.4 Maak 'n benoemde voorstelling van 'n aanbodgrafiek vir landbouprodukte. (3)
- 5.5 Die onderstaande figuur stel 'n styselhoudende saad voor. Benoem A – G. (7)



- 5.6 Die massadigtheid van grond varieer gewoonlik aansienlik tussen die A- en B-horisonte. Bespreek die oorsake van hierdie verskille volledig. (8)
- 5.7 Met watter middels kan 'n dier se rantsoen aangevul word? (5)
- 5.8 Noem die moontlike oorsake van 'n gebrek aan libido (geslagdrang) by die bul. (6)

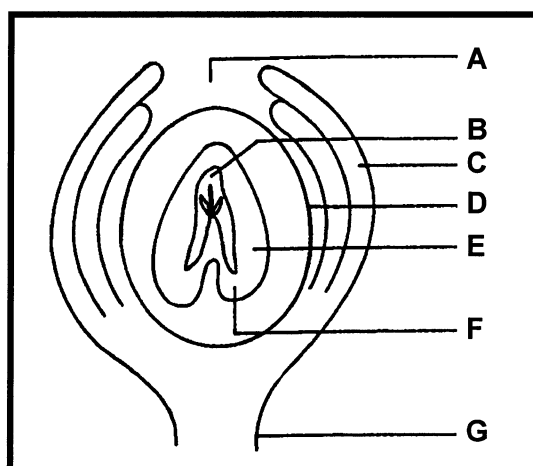
[50]

VRAAG 6

- 6.1 Wat is die doel met grondbewerking? (5)
- 6.2 Hoekom is wisselbou 'n gewenste praktyk? (7)
- 6.3 Noem die nadele van vrye bemarking. (6)
- 6.4 Wat is die gestelde vereistes vir doeltreffende kontrole? (6)
- 6.5 Omskryf die begrip **toeganklike grondwater**. (4)
- 6.6 Watter maatreëls kan getref word om die waterverlies deur transpirasie te verminder? (4)
- 6.7 Bespreek die verskille tussen **grond-** en **atmosferiese lug**. (5)

QUESTION 5

- 5.1 Under which circumstances will spray irrigation give the best results? (6)
- 5.2 What information is required before a drainage system can be constructed? (5)
- 5.3 State the requirements of a good market for agricultural products. (10)
- 5.4 Make an annotated representation of a supply graph for agricultural products. (3)
- 5.5 The figure below represents a starch-containing seed. Provide labels for A – G. (7)



- 5.6 The bulk density of soil varies considerably between the A and B horizons. Discuss fully the causes of these differences. (8)
- 5.7 With what substances can an animal's ration be supplemented? (5)
- 5.8 State the possible causes of a lack of libido (sexual urge) in a bull. (6)
- [50]

QUESTION 6

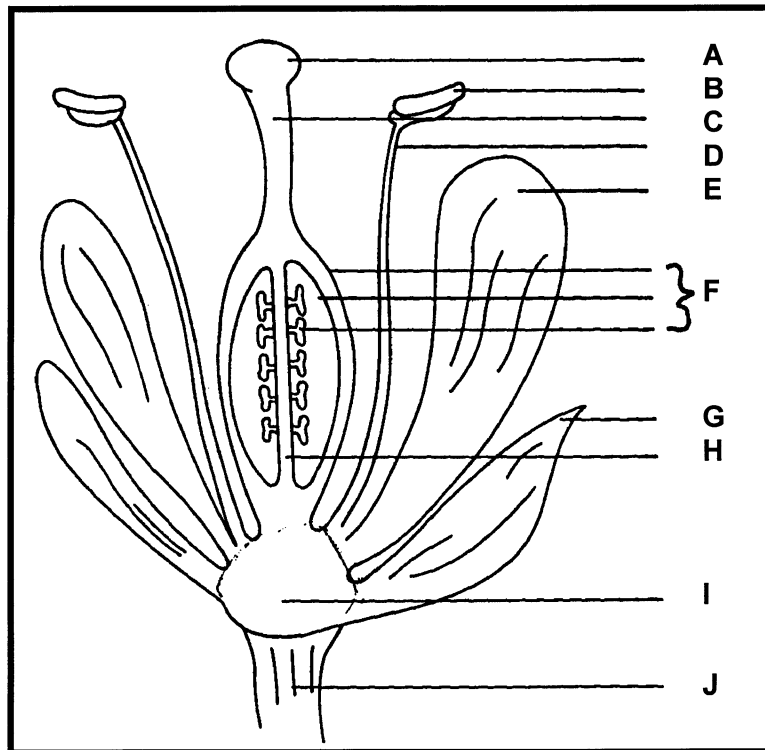
- 6.1 What are the aims of soil cultivation? (5)
- 6.2 Why is crop rotation a desirable practice? (7)
- 6.3 State the disadvantages of free marketing. (6)
- 6.4 What are the set requirements for efficient control? (6)
- 6.5 Define the term **accessible soil water**. (4)
- 6.6 What measures can be taken to reduce the loss of water through transpiration? (4)
- 6.7 Discuss the differences between **soil air** and **atmospheric air**. (5)

- 6.8 Bespreek die nadelige uitwerking van alkaliniteit en saliniteit op die grond en op plantegroei.

(13)
[50]

VRAAG 7

- 7.1 Noem die vereistes in effektiewe dissiplinêre optrede. (5)
- 7.2 Omskryf die begrip **markewewig**. (5)
- 7.3 Noem en bespreek die TWEE tipes suurheid wat in grond voorkom. (8)
- 7.4 Bespreek podsolisasie. (8)
- 7.5 Benoem A – J in die onderstaande skets van 'n blom. (10)



(10)

- 7.6 Noem die invloed wat groeistimulante op vrugte het. (4)
- 7.7 Noem DRIE enttegnieke wat by plante gebruik word. (3)
- 7.8 Noem die voordele wat basterkrag inhou vir 'n beesboer wat kruisteling toepas. (7)

[50]

TOTAAL VIR AFDELING B: [300]

TOTAAL: 400

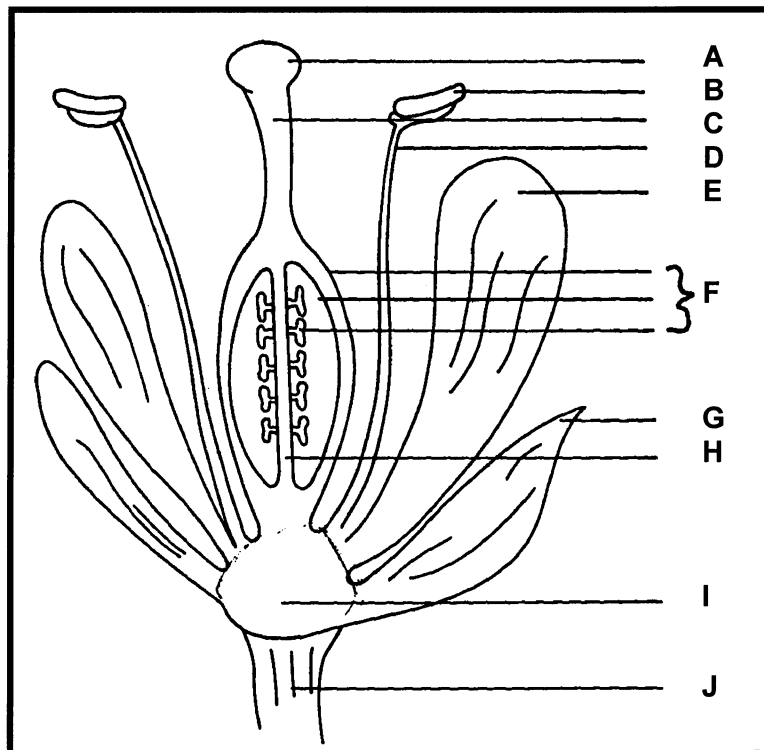
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- 6.8 Discuss the detrimental effects of alkalinity and salinity on soil and on plant growth.

(13)
[50]

QUESTION 7

- 7.1 State the requirements for effective disciplinary action. (5)
- 7.2 Define the term **market equilibrium**. (5)
- 7.3 Name and discuss TWO types of acidity which occur in soil. (8)
- 7.4 Discuss podzolization. (8)
- 7.5 Supply the sketch of the flower with labels for **A** to **J**.



(10)

- 7.6 State the influence of growth stimulants on fruit. (4)
- 7.7 Name THREE grafting techniques used on plants. (3)
- 7.8 State the advantages that hybrid power has for a cattle farmer who makes use of cross-breeding. (7)

[50]

TOTAL FOR SECTION B: [300]

TOTAL: 400

END