Question 1

Using specimens A,B,C and D, carry out an experiment to show that soil is made up of different particle sizes.

(a) (i) Describe the procedure used in conducting the experiment. [5 marks]

(ii) State your observations and results. [5 marks]

(b) State one function of each of specimen B and specimen C in the experiment. [2 marks]

(c) State three precautions taken in carrying out the experiment.[3 marks]

OBSERVATION

This question was well attempted by the candidates. In question 1 (a)(i & ii), majority of the candidates could describe the procedure used in conducting the experiment and state the observations and results. Also, in question 1 (b), most candidates were able to state the functions of specimen B(water) and specimen C (sodium carbonate) in the experiment. Further to this, majority of the candidates were able to state the precautions taken in carrying out the experiment.

Question 2

1. Mention the field operation that could be performed using specimens G, H, I and J. [1 mark]
2. Name three other equipment that may be added to specimens G, H, I and J to perform the operation you have mentioned in 2(a) (i). [3 marks]
3. State one precaution that should be taken when using specimen J. [1 mark]
4. State two uses of each of specimens K and L [4 marks]
5. State two structural differences between specimens K and L. [4 marks]
6. Mention two problems that could result from leaving specimen L on the field after use. [2 marks]

OBSERVATION

This question was very popular with the candidates. In question 2 (a), majority of the candidates could describe briefly specimens G(cutlass), H(hoe) and I (short handle sickle).

Also, in question 2(b), most candidates were able to state the uses of specimens G(cutlass),

H(hoe) and I(short handle sickle). In addition to this, majority of the candidates were able to state

Question 3

(a) State one method of propagating each of specimens J, K and L on the farm. [3 marks]

(b) Describe briefly the method of planting each of specimens J, K and L. [12 marks]

OBSERVATION

This question was poorly attempted by the candidates. In question 3(a), majority of the candidates were unable to state the method of propagating each of specimens J(yam tuber), K (plantain) and L(tomato fruit). Also in question 3(b), majority of the candidates could not describe briefly the method of planting each of the specimens (i.e yam tuber, plantain and tomato fruit).

The expected answer include:

- Method of propagating specimens J, K, and L
- Specimen J(yam tuber) - By seed yams/yam setts/mini setts/whole yam tuber
- Specimen K (plantain) - By Suckers, Corms
- Specimen L (tomato fruit) - By seeds
- Method of planting specimens J,K and L.
- Specimen J(yam)

Yam tubers are cut into setts

1. Yam setts/seed yams are treated with an insecticide/or wood ash before planting/allowcut surface to dry under shade
2. Make hole on the ridge/mound/in the ground
3. Place a yam sett or seed yam into the planting hole at a slanting angle with cut end up
4. Yam setts/seed yams are planted at a spacing of 1m x 1m
5. Cover the hole with soil
6. Mulch with dry grass
7. Provide stakes

Specimen K (plantain)

1. Dig holes about 60cm x 60 cm x 60 cm
2. Fill the holes with a mixture of top soil and organic manure
3. Place a sucker in each hole
4. Cover the root part with soil
5. The suckers are planted at a spacing of 4m x 4m
6. Mulch planted suckers at the bases

Specimen L (tomato)

1. Sow seeds in nursery beds or boxes - under shade
2. Water regularly
3. Transplant seedlings into the field after 4 - 6 weeks or when the seedlings are at three-
4. leaf stage
5. Seedlings are planted at a spacing of 60cm x 60 cm or 90 cm x 40 cm
6. Transplant seedlings usually in the mornings or evenings
7. Water seedlings daily
8. Mulch seedlings
9. Provide stakes