

Strand 2: Food production processes

2.1 Crop establishment

Section A

1. C.
2. A.
3. C.
4. C.

Section B

1.
 - (a) Coarse tilth.
 - (b) No. Maize seeds are medium sized hence require medium tilth. Coarse tilth will interfere with their emergence after germination.
2.
 - (a) The soil had coarse tilth which was not suitable for carrot seeds that are small in size hence required fine tilth.
 - (b) Digging the land to a fine tilth.
3.
 - (a) Broadcasting.
 - (b) Small sized seeds.
 - (c) Fine tilth.
 - (d) -Clearing vegetation using suitable tools such as a slasher.
-Digging the soil to the required depth and remove stones and stumps.
-Break soil lumps into fine particles.
4.
 - (a) Medium tilth.
 - (b) Identify, measure and mark the planting site. Clear vegetation using suitable tools such as a slasher. Dig the soil to the required depth and remove stones and stumps. Dig the soil a second time to break large soil lumps and achieve medium tilth.
5. Identify, measure and mark the planting site. Clear vegetation using suitable tools such as a slasher or panga. Dig the soil deeply and remove stones and stumps without breaking large soil lumps unless they are too large. Make planting holes at the correct spacing, depth and size. Apply manure where necessary. Plant the cassava cuttings in the prepared holes. Cover the cuttings with soil and firm the soil around the base.

2.2: Selected crop management practices

Section A

1. B.
2. B.
3. C.

4. B.
5. A.

Section B

1.
 - (a) Earthing up.
 - (b) It encourages tuber expansion in Irish and sweet potatoes. It encourages development of roots and formation of prop roots in maize. It enhances seed formation in groundnuts. It helps to conserve moisture around the base of the plant.
2. Thinning of carrot seedlings.
3. Weeding using a panga.
4. (a), (b), (d), (f), (e), (c).
5. Maize, groundnuts and sweet potatoes.
6.
 - (a) Gapping.
 - (b) Identify empty spaces in a crop field caused by poor germination. Replace missing plants using healthy seedlings or viable seeds. Maintain original planting spacing. Avoid disturbing existing crops during replacement. Clean and store tools properly after use.

2.3: Preparation of animal products

Section A

1. C.
2. C.
3. B.
4. B.
5. B.

Section B

1.
 - (a) Dirty eggs - Clean them using a clean, soft cloth by gently wiping away stains. Avoid washing them with plain water, which can force bacteria through the porous shell.
 - (b) Cracked eggs - Sort and remove them from the batch intended for sale.
 - (c) Different sizes - Grade and group them into matching sizes (small, medium, large) so they can be priced uniformly.
 - (d) Different colours - Sort them by shell colour (white eggs together and brown eggs together) to create uniform, visually appealing displays that match consumer preferences.
2. They must separate the cracked eggs from the good ones to prevent leakage of contents from contaminating other eggs. The cracked eggs should be consumed immediately at home by cooking them thoroughly, provided they do not show signs of spoilage. They must never be sold to the market because cracked shells allow harmful bacteria like Salmonella to easily enter the egg.

3. Clean carefully without damaging the shell. Store separately to avoid contamination.
4.
 - (a) Correct packaging - The honey should be packaged in food-grade glass or plastic jars.
 - (b) Thoroughly wash and sterilise the containers before use and ensure they are completely dry to eliminate any foreign odours. Honey easily absorbs surrounding smells, which ruins its flavour.
 - (c) Sealing - The containers must have tightly fitted, airtight caps or lids to prevent the honey from absorbing atmospheric moisture and leaking during transit.
 - (d) Correct transportation - The sealed jars should be arranged upright in sturdy, well-cushioned crates or boxes to prevent movement and friction. The crates must be loaded onto a clean, dry, covered transport vehicle away from direct sunlight and heat.
5. Increases market value and customer satisfaction.

2.4: Cooking food

Section A

1. B.
2. B.
3. B.
4. B.

Section B

1. (a) Steaming.
(b) The vegetables will retain most of their nutrients, colour and flavour.
2.
 - (a) Grilling.
 - (b) It is a fast method of cooking food.
3.
 - (a) Do not drench the meat with oil before grilling.
 - (b) Turn the meat occasionally during grilling.
 - (c) Do not leave the meat in the grill unattended.
4.
 - (a) To add flavour, make the meat tender, improve colour.
 - (b) To ensure the meat is cooked in the inside.
 - (c) To keep the meat moist.
 - (d) To ensure that the meat juices are distributed.
5.
 - (a) The food may lose water-soluble nutrients such as vitamin C and B into the water, reducing its nutritional value.
 - (b) Steam will escape, causing the food to take longer to cook. It may also result in greater nutrient loss due to prolonged cooking.

6. Put the potatoes in a *sufuria* to boil. Put the fish in a metal plate that covers the mouth of the *sufuria* and place it on top of the *sufuria*. Cover it with another metal plate. As the potatoes boil, the steam from the boiling potatoes will steam the fish.
7.
 - (a) It ensures even cooking of the meat. Improves browning of meat. Saves cooking time.
 - (b) To ensure heat circulation hence even cooking. Make turning and basting easier.
Ensure proper browning of meat.
8.
 - (a) Tongs -used to grab food when lifting, tossing or serving food.
 - (b) Skewers -hold pieces of food together when grilling.
 - (c) Grilling rack – allows hot air to circulate around the food during grilling.
 - (d) Spit -keeps meat rotating constantly to ensure even cooking.
 - (e) Basting brush -to brush food items with oil or sauce as it cooks.