**JINJA JOINT EXAMINATIONS BOARD**

**MOCK EXAMINATIONS 2019**

**MARKING GUIDE**

**662/1 paper 1**

1. C
2. B
3. D
4. A
5. A
6. D
7. D
8. A
9. C
10. C
11. D
12. A
13. A
14. A
15. D
16. C
17. B
18. C
19. B
20. C
21. **(a). Six items that should be in first aid kit/box**

* Safety pins
* Bandages
* Sterile eye pad
* Scissors
* Pieces of gauze
* Cotton wool
* Pain killers e.g. panadol
* Anti-septic e.g. Dettol
* Tweezers
* Plasters
* A torch
* Surgical spirit *(3 marks for any six)*

**(b) Four causes of shock.**

* Losing a lot of blood e.g. in an accident.
* Severe illness.
* Severe allergic reaction.
* Heavy bleeding inside the body.
* Sudden heart attack.
* Stroke.
* Severe burn or great pain.
* Bad news.
* Electricity*. (4 marks for any four points)*

**(c). Points to observe when making stock.**

* Chop bones before use to expose maximum surface area.
* Use strong deep pan with well-fitting lid to minimize evaporation.
* Use fresh and clean ingredients.
* Cover the ingredients with cold water, bring to the boil and simmer for 2-3 hours to extract all soluble nutrients.
* Skin the stock to remove fat and other impurities that produce a form to prevent the stock from becoming cloudy.
* Strain the stock as soon as it is ready, cool quickly and store in a cold place to prevent it from going bad.
* Do not use stock for more than once. Warm stock is an ideal breeding ground for bacteria.*. (3marks for any 3points)*

**(d). Conditions that may necessitate artificial feeding to a baby.**

* When the mother cannot produce enough breast milk for her baby; she has to supplement the other milk.
* It may not be possible for a working mother to breast feed her baby regularly because of the nature of work and distance.
* When mother is sick/ill or dead. E.g. when the nipples have wounds/ sores.
* When the baby refuses to feed on the breast milk*. ( 4marks for any 4 points)*

**(e). Meaning of the following culinary terms.**

1. Marinade; This is the immersion or soaking of fish/ meat/ chicken in a marinade of vinegar or lemon juice before grilling, roasting or frying.
2. Kneading; To blend together thoroughly ingredients in a dough to distribute yeast evenly in a bread dough using hands e.g. light kneading for pastries and heavy kneading for bread dough.
3. Basting; To moisten food by pouring usually hot fat over food during cooking e.g. grilling, roasting of meat/chicken etc. to prevent it from drying out.  *(1 mark @)*

**(f). Reasons for each of the following practices in cookery.**

1. Conservative cooking of green vegetables.

* To conserve nutrients especially soluble vitamins and minerals.
* Minimize evaporation of food.
* Retain natural flavors of food*.(1 mark for any 2)*

(ii). Grating of cheese.

* To improve digestibility.
* For easy mixing with starchy foods e.g, in cassava, macaroni, wheat flour etc.
* To avoid over cooking of cheese which causes protein to shrink and harden.  *(2 marks for any 2 points)*

SECTION B

1. **(a). Role of fat in the body.**

* Lipids supply large amount of heat and energy.
* Excess fats are stored under the skin (adipose tissue), this insulate and protect the body against heat loss.
* Important carriers of nutrients i.e. fat soluble vitamins( A,D,E,K)
* Fats help to lubricate the intestinal tract which enables the easy movement of food along the digestive system.
* Fat is stored around the dedicate organs such as the nerves, liver, kidney, heart; to protect them from external damage.
* Lipids slow down the action of the stomach, hence delaying the feeding of hunger.
* As the body cannot synthesize certain fatty acids.i.e. the essential fatty acid, some fats are needed to provide them in the body e.g. linoleic acid, linolenic acid.
* Some fats are converted to vitamin D when the body is exposed to ultra-violet rays from the sun.
* Fats provide a reserve of energy for long-term storage, which can be used if energy intake is restricted.*(7 marks)*

**(b). Consequences of under nourishment of the following nutrients in the diet of an adolescent girl.**

1. **Calcium**

* The strength of bones and teeth is not maintained; which may results into osteomalacia and poor quality teeth.
* The muscles and nerves will not function correctly which may result into condition called tetany where the muscles contract rigidly and may lead to convulsions.
* Irritability and muscular spasm.
* Heart problems.
* Poor clotting of blood which may lead to anaemia especially when she is involved in an accident/operation*.(4 marks)*

1. **Iodine**

* Enlargement of the thyroid gland resulting in goiter.
* Cretinism –a medical condition in which there is a failure of mental or physical development due to bad function of the thyroid gland.
* Obesity
* Lack of thyroxin causes fall in basal metabolism*. (3 marks)*

1. **Iron**

* Fatigue, weakness and pale complexion.
* Iron deficiency reduces the ability of hemoglobin to carry oxygen to the blood cells.
* Lack of appetite.
* Checked metabolic rate in the body.
* Anaemia will result as an adolescent girl need good source of iron to replace iron lost during menstrual period.
* Shortness of breath.
* Generated health is affected as cells cannot function properly.
* Bristled nails, which in extreme cases may become spoon shaped.
* Sores may result on the tongue and corners of the mouth and difficulty in swallowing maybe experienced*. (6 marks)*

**23(a). Effects of heat on proteins.**

* Proteins e.g. egg white denatures and coagulates when heated.
* Meat fibres shrink on heating and myoglobin, the red color in meat, changes to brown.
* Collagen a protein in the connective tissue of meat changes to soluble gelatin on heating in presence of water.
* Egg protein thickens milk when the two are heated together forming custard.
* Heat treatment changes the flavor of milk.
* Mailard browning reaction; a chemical change which happens when proteins react with reducing sugar to produce a complex brown substance with pleasant flavor, aroma and color. E.g. toasted bread, breakfast cereals.
* Solubility; most proteins are insoluble in water. Exceptions are egg white and connective tissue which dissolves in hot water.
* When food is over cooked, some amino acids are destroyed hence making the food tough and indigestible*. ( 5 marks)*

**(b). Dangers of excluding roughage in the diet.**

* Constipation occurs.
* Diverticular disease occurs.
* Obesity as more of starchy food is consumed.
* Heart diseases as a result of accumulation of cholesterol.
* Deficiencies diseases like scurvy, Pellagra, most refined foods are lacking in these.
* Cancers as a result of accumulation of toxic chemicals from additives in refined foods. *(5 marks)*

**(c). symptoms of vitamin C deficiency.**

* General body weakness.
* Pains in the joints.
* Tender and bleeding gums and teeth may eventually fall out.
* Delayed healing of wounds and excessive bruising.
* Muscle crumps.
* Dry scaly skin.
* Retarded growth.
* Incomplete absorption of iron leading to anaemia. *(5 marks)*

**(d). Causes of kwashiorkor in Uganda.**

* Diarrhea which affects the absorption of the already small intake of protein especially during weaning and post weaning periods.
* Loss of appetite due to illness or because the child is unhappy and feels neglected by the mother.
* Intestinal parasites.
* High protein need during infancy.
* Social, customs, beliefs/taboos.
* Infections which in most cases interfere with absorption of nutrients*. (5 marks)*

**24(a). Rechauffe**; this is a reheated dish made from left-over food. *(2 marks)*

**(b) (i). Rules to observe when preparing left over foods.**

* Use the left-over food within 24 hours.
* Cool the left-over food within 1.5 hours and store in a covered container in the refrigeration.
* Reheat the food quickly, it should be cut up finely or minced to facilitate heat penetration.
* Do not recook the food as this will toughen the protein and make it indigestible.
* Include additional flavoring in the form e.g. herbs, spices, seasoning as much of the original flavor will be lost.
* Never reheat left-over food more than once.
* Cook additional ingredients e.g. vegetables before adding them to the food.
* Serve reheated food immediately it is ready.
* Always serve with some protective foods e.g. fresh salads.
* Do not give reheated foods to infants*. (8 marks for any 8 points)*

**b (ii). Four dishes that can be made from left over fish.**

* Russian fish pie
* Fish cake
* Fish kedgeree
* Fish samosas*( 2 marks)*

**(c). different ways of frying food**

* Sautéing/stir frying;

In this method, food is cooked quickly in a small amount of hot fat/oil; the liquid like water may be added and the fat is absorbed by the food. e.g. onions for preparing other dishes, vegetables, stews etc. there is very little loss of nutrients and the food remains crispy and well flavored.

* Dry frying ;

In this method no fat is used. It is suitable for foods which contain sufficient fat e.g. fatty meat, pork, bacon, sausages etc.

The method minimizes loss of nutrients through solubility.

* Shallow frying:

The justoil covers the bottom of the frying pan or it should be just enough to cover half way the food. The food has to be turned over after cooking one side to golden brown e.g. eggs, chapatti, bacon, sausages etc.

* Deep fat frying;

This is where the food is completely immersed in oil and a wire basket maybe used to keep the food together when cooking. Food need to be coated in order to protect them from intense heat or disintegrating during deep fat frying.*(8 marks)*

**25(a) (i).Types of meat eaten in Uganda.**

* White meat e.g. beef, chicken, turkey, fish etc.
* Red meat and intermediary meat e.g. meat from cow, goat, pork, rabbit respectively.*(4marks)*

**(ii). Ways of tenderizing meat.**

* Mincing meat.
* By beating or pounding the meat with a steak hammer/rolling pin mechanically.
* Marinating.
* Use of enzymes such as papain got from paw-paw plant.
* Hanging the meat.
* Slow cooking (simmering).
* Injecting the animal with tenderizing enzymes before slaughter.*(6 marks)*

**(b). uses of soup in the diet.**

* Soup act as appetizers by increasing the flow of saliva and gastric juice.
* Soups supply nutrients such as proteins, carbohydrates etc. depending on the ingredients used.
* They can be used to add a hot dish during cold weather.
* Soups provide flavor and energy.
* They are useful to the cook who wishes to use up small amounts of left-over foods. *(4 marks)*

**(c). Why food additives are added to food during manufacture.**

* To preserve food from decay and spoilage.
* To improve on their keeping qualities.
* To improve or enhance on the flavour and texture of food.
* To produce new products.
* To provide easy to prepare convenience foods.
* To produce uniform food during manufacture.*. (6 marks)*

**26 (a).Hygiene rules that must be followed by a food handler.**

* Wash hands before preparation.
* Use clean utensils.
* Avoid over handling food.
* Do regular washing of utensils.
* Put rubbish in a bin and keep it covered.
* Keep finger nails short.
* Use clean kitchen towels to wipe utensils and work surfaces.
* Cover hair.
* Keep food covered.
* Do not sneeze or cough over food.
* Do not smoke in food premises.
* Thaw food thoroughly before use.
* People with infectious disease should not handle food e.g. flu, cough. *(9 marks)*

**(b). care for kitchen dust bin.**

* Wash regularly, dry and line with newspapers before using again.
* Empty the refuse bin regularly.
* Disinfect each time it is washed and dry under the sunshine.
* Never mix solid and liquid refuse because organic refuse will decay quickly and produce a bad smell.
* Place under shelter to prevent rain water from entering into it.
* Place the dust bin on a raised ground to prevent its bottom from getting off.
* Wrap refuse with old newspapers before putting it in the dust bin to avoid staining. *(6 marks)*

**(c). Reasons for preserving food.**

* To make full use of garden produce.
* To avoid waste.
* To use up fruits and vegetables when they are cheap and plentiful and make them available when not in season.
* To introduce flavor and variety to the menu e.g. jams, pickles, chutneys, marmalade.
* To save money through economies of scale.e.g. in jam making.
* On a commercial scale to facilitate distribution and export of food*. ( 5marks)*

**27(a). Factors to consider when packing meals?**

* Meals should always be balanced including essential nutrients in adequate amounts.
* They should be satisfying and it is important to pack just sufficient, avoiding too much waste or the trouble to carry it back.
* Should be easy to carry in a food pack of any kind.
* Meal should not be messy; this makes dry food more favorable because they do not spill.
* Should be easy to eat, requiring minimum use of cutlery.
* Food chosen should be able to keep well.
* Drinks e.g. fruit/ water should always be packed to accompany the food.
* Meal should suit both the person and the occasion.*( 5marks)*

**(b). Guidelines to be followed when using a pressure cooker.**

* Following the manufacturer’s instructions or else pressure cooking may be very dangerous.
* Preliminary cooking maybe done in the pressure pan without the lid on.
* It is recommended that the pan should not filled beyond two-thirds (2/3) with solid food or half (1/2) with liquids.
* When cooking time is up, reduce the pressure by leaving the cooker to stand at room temperature 25°C or by running cold water over the side of the cooker.
* Never open a pressure cooker when there is still pressure inside.
* Time the cooking and lower the heat when the pressure is reduced.
* After use washed thoroughly especially the rim, gasket, steam valve; if any particle remain on these, the cooker may not function properly dry well and store without the lid on to prevent bad smell.
* Avoid thickening liquids at the onset of cooking; thicken later using blended corn flour.*( 7marks)*

**(c). (i). Give the key factors one needs to consider when planning meal for the elderly.**

* Obesity aggravates with health problems of old age so fat and sugar in the diet should be reduced.
* Bristle bones break easily, to prevent decalcification the elderly should have a high intake of calcium and Vit.D; getting outside into the sunshine.
* Bad or weak teeth and difficulty in digestion requires soft textured foods which is easy to chew and digest.
* Fairly heavy meal may be served during day but evening meal should be light to avoid sleeplessness.
* Money can be in short supply so food must not be expensive.
* Encourage simple and economic methods of cooking.
* Anaemia can be a problem, supply iron foods that are in expensive e.g. cereals, eggs, offals and vegetables, a good supply of vit.C are required.
* Vit.C is essential to avoid scurvy. Fruits are expensive so a vit.C supplement prescribed by a doctor may be needed*. (6 marks)*

**(ii). Forms of convenience foods.**

* Canned foods
* Frozen
* Dehydrated foods
* Instant foods
* Ready it
* Mixes
* Synthetic food*. (2marks)*