FREQUENTLY ASKED QUESTIONS

1. **Name different classes of poultry according to Indian standards?**

Ans). The different classes of poultry according to Indian standards are as follows:

a) **Broiler or Fryer:** Chicken of 8 to 10 weeks of age of either sex, tender-meated with soft, pliable, smooth-textured skin and flexible breastbone cartilage.

b) **Rooster:** A young chicken, usually 3 to 5 months of age, of either sex tender-meated with soft, pliable, smooth-textured skin and flexible breastbone cartilage that may be somewhat less flexible than that of the broiler or fryer.

c) **Stag:** A male chicken cock, usually under 10 months of age, with coarse skin, somewhat toughened, with darkened flesh and a considerable hardening of the breastbone cartilage.

d) **Stewing chicken or fowl:** A mature chicken, usually more than 10 months of age, with meat less tender than that of a roaster and nonflexible breastbone tip.

e) **Cock:** A mature male chicken, usually over 10 months of age, with coarse skin, toughened and darkened meat, and hardened breastbone tip.

2. **Define plucking and enlist different methods used for plucking of poultry?**

Ans). It is the process followed for the removal of feathers. The methods used for this purpose are as follows:

a) **Hand plucking:** A force or a jerk pulls off feathers manually by hands.

b) **Scald picking:** Birds are immersed in hot water so that follicles are loosened.

c) **Wax picking:** Wax bath is also used occasionally. It contains wax gum and fat. Temperature of bath is 132^{o}F. Poultry is immersed in molten wax and on drying, it is scrubbed off so that feathers come out with wax.

3. **Enlist the different steps involved in slaughtering of poultry through flow diagram.**

Ans). The different steps involved in slaughtering of poultry are shown below (Figure 2):

Pre-slaughter fasting and resting

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Ante-mortem examination

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Stunning

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Bleeding (Sticking)

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Plucking

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Singeing

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Washing and legging

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Evisceration

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Chilling

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Grading

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Packing

4. **Define stunning?**

Ans). Stunning is the process in which poultry birds are made unconscious before bleeding. Electrical stunning is being used now a day. Hand stunning devices or automatic stunning devices may also be used for this purpose. A fowl having 2 Kg weight needs 70 volts current for 1 to 3 seconds and turkey having 6 to 9 Kg weight require 90 volts for 10 seconds.

5. **Discuss briefly the nutritional significance of poultry meat?**

Ans). Poultry meat has a high protein content varying from 18-25 percent and is comparable in quality and nutritive value to other meats. It contains all the essential

amino acids required for building body tissues. There is little fat on the meat of young birds, but the fat content is influenced by age, and species of poultry. In any case, the fat content of poultry is less than half of other meats. Chicken fat is more unsaturated than the fat of red meat and this has nutritional advantages. Like other animal tissues, poultry flesh is a good source of B vitamins and minerals. The dark meat of chicken is richer in riboflavin than the light, but the light meat is richer in niacin. Because of its high protein-to-fat ratio, poultry meat is advantageous to persons who must restrict the intake of fats. Use of poultry products in our diet will help avoid malnutrition. Another advantage of poultry in our country is that it is eaten by persons who have objection to eat beef or pork.

6. **Define deep fat frying of poultry?**

Ans). This operation is used to heat the product, to change the physical characteristics of the food, develop a brown/gold colour on the surface, and to inactivate microorganisms. Deep-fat frying is particularly suitable for cooking low-fat, young, tender poultry and more frequently used than broiling. The halves of the birds are frequently fried. Before frying they are coated with seasoned flour or beaten eggs and bread crumbs. They are then carefully cooked to prevent over-browning before the meat is tender. In deep-fat frying, the bird must be steamed until the stage of doneness before being dipped in flour or in egg and crumbs, and fried slowly. The time required for browning in deep fat is too short to promote thorough cooking of the meat.

7. **How chicken shami kababs are prepared?**

Ans). In the preparation of shami kababs, meat chuncks and water soaked black gram dal are simmered in water for nearly 15 minutes before grinding. It is seasoned with salt, dry spices and condiment paste. Some people also add liquid egg to the mince. It is made into round cakes which are shallow fried with edible oil on a girdle till both the sides are brown.

8. **Name different convenience poultry products.**

Ans). Poultry meat is consumed in many forms of traditional and processed products. Convenience products do not require any preparation prior to consumption. The common traditional products are tandoori chicken, chicken seek kabab, chicken shami kabab, chicken curry, chicken kofta, chicken tikka, chicken samosa, etc. other

products such as barbecue, chicken patties, chicken sausages etc. are also have a good market in Urban areas.

9. **What are the different preservation techniques of poultry?**

Ans). The various techniques used for poultry preservation are freezing, irradiation, active packaging, canning and chemical treatments such as salt, preservatives, acids, etc.

10. **What are the different cooking methods of poultry meat?**

Ans). The principles of cooking poultry are basically the same as for cooking meats. The cooking method is selected on the basis of tenderness of the poultry and its fat content, both influenced mainly by the age of the bird. The methods used for cooking of poultry meat are broiling, frying, roasting braising and stewing.

11. **What is the role of sodium chloride in preservation of meat and meat products?**

Ans). Sodium chloride (NaCl) is one of the oldest ingredients used to preserve meat. Preservation is achieved by lowering the a_w and hence reducing the water available for microbial growth. In addition, a high salt concentration outside a bacterial cell can interfere with its metabolism, since the salt draws water from the cell. The salt concentration within the cell is around 0.90%. When the external salt concentration is about the same, the cells experience so-called isotonic conditions. When more salt is added, the higher external concentration results in water moving out of the cell in order to maintain equilibrium (a condition known as `plasmolysis', which can inhibit growth and possibly destroy the cell).

12. **What are the different effects of nitrite and nitrate in preservation of meat?**

Ans). Sodium nitrite (NaNO2) and sodium nitrate (NaNO3) are used in the curing processes for different meat products. The effects of nitrite can be divided into three categories:

a) Inhibiting the growth of food poisoning bacteria, such as *C. botulinum*, and certain spoilage organisms.

b) Stabilizing the pink colour of meat by forming the nitrosohemochrome complex.

c) Contributing to flavour development with inhibition of oxidation and formation of the so-called `warmed-over' flavour.

13. **Which type of radiation source is used for irradiation of meat?**

Ans). Gamma radiation is considered an innovative and interesting method to preserve poultry meat and also reduce microbial populations in fresh poultry and poultry products.

14. **What are the different criteria for selection of cooking methods in poultry?**

Ans). The cooking method is selected on the basis of tenderness of the poultry and its fat content, both influenced mainly by the age of the bird. Moist heat methods are applied to older and tougher birds in order to make them tender and palatable. Dry heat methods are applied to young tender birds. The changes that take place during the cooking of poultry are similar to those of other meats. To obtain tender, juicy and uniformly cooked poultry, low to moderate heat is to be used. Intense heat results in the toughening of proteins, shrinkage and loss of juiciness.

15. **What is the difference between restructured and sectioned poultry products?**

Ans). Restructured items have a smaller particle size which is reduced by grinding, flaking, dicing, chopping, slicing, or emulsifying. The particles are then mixed with an appropriate binding material and formed into a specific portion size. Sectioned products are primarily intact muscles and have a more "whole-muscle" texture than restructured items. Examples of products in this category include poultry/turkey rolls, "fillets," poultry roasts, poultry patties, nuggets, loaf items, turkey bacon and turkey ham. Some items may be coated with a batter-breading, precooked and packaged for reheating in the microwave, deep fat fryer, or conventional oven.