**NWACHUWKWU FAVOUR**

**16/SMS06/008**

**TEM 418**

**FOOD AND CATERING**

QUESTION 1

Food studies are the critical examination of food and its contexts within science, art, history, society, and other fields. It is distinctive from other food-related areas of study such as nutrition, agriculture, gastronomy, and culinary arts in that it tends to look beyond the mere consumption, production, and aesthetic appreciation of food and tries to illuminate food as it relates to a vast number of academic fields.

Food and catering study in event management degree programs prepare people to market, plan and run restaurants and other types of food service establishments. Students may choose either associate's or bachelor's degree programs in catering and restaurant management, or in related fields, such as hospitality. Graduates from these programs learn widely varying duties that can include hiring and firing employees, tasting and preparing food, coordinating kitchen and service workers, and supervising inventory of supplies and resources.

Careers in this field are fast paced and often require long hours, effective time management and the ability to work well in a team environment. People who have obtained a degree or training in catering and restaurant management might find work as catering managers or restaurant managers, among other possibilities.

**TOP REASONS TO CHOOSE A CAREER IN FOOD AND CATERING STUDIES**

With so many career avenues available, it can be hard to know which path to take. Catering is one such avenue. Even with fluctuation in the economy, the hospitality industry has shown great resilience in its business and has certainly boomed over recent years. Like a lot of other hospitality roles, catering hours can be long and tiring, however the rewards are worth every moment. Here are some of the reason why you should should choose a career in catering and what can you expect from it.

**CLEAR CAREER PATH**

With hospitality, there are a lot of choices when deciding on what kind of career you wish to pursue. One of the greatest things about hospitality is the great potential, even without higher education (although it does help). When working in hospitality and catering, you will be able to have a clear understanding of what you will need to grow within the business. If you‚Äôre aiming for a management position, to be a head chef, or perhaps even run your own catering business, the path to these roles are always clear and attainable with hard work and dedication.

**GREAT OPPORTUNITIES**

Catering is required in varying countries, locations and for differing events. Whether you want to spend your time working in one area or city, or if you wish to travel across different continents working as a caterer, the opportunities are almost endless. Some job roles don‚Äôt offer this kind of opportunity, so it can be a unique opportunity for you.

**CREATIVITY**

When working as a caterer, especially if you run your own business, you will have a great avenue for showcasing your creativity. If you want to show your flair for food on a large scale, this is easily obtainable as a caterer. If you have a creative side, you may find it helps you in the catering business.

**APPRECIATION**

If not for your catering skills, no-one would have had a decent meal at the wedding. Being a caterer means that people will show their appreciation for your great work. There are little other roles where your appreciation is often shown, but this is prevalent in the catering business. If you do a good job, be prepared to be thanked for your job well done, which is sure to give you a great feeling at the end of the day.

**JOB VARIETY**

One event might be a wedding, another could be a baby shower. Alternatively, you might be preparing food for a work conference. With catering, you‚Äôre not stuck in one location, with one kind of menu, day in and day out. In catering, there can be great variety week in and week out, which can help to ensure you aren’t bored within your job.

It is cheaper than buying a restaurant

If you‚are looking at starting your own catering business, you may find that it is a cheaper option than opening a restaurant. There is a lot of work involved with opening a restaurant, especially if you are starting one from scratch. A catering business can be a lot easier to establish and will also allow you to have more creative freedom as opposed to a restaurant setting.

Staff may be easier to obtain

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**MORE CUSTOMER INTERACTION**

As a caterer, you may find that you are working closer with clients and customers more than you would in a restaurant. This is especially true if working in a restaurant or commercial kitchen. In this case, you may be in the kitchen and never see a paying customer as only the servers and waiters are out on the floor. As a caterer, you can work closer with clients, assessing their needs and deciding a menu suited to them and their event. If you enjoy talking with customers and getting to know them better, catering may be a really great option for you.

**BE A MULTI-TASKER**

Like many businesses, it is important to be well organized and be able to multi-task. You may have several events coming up and need to ensure you have all ingredients from suppliers, staffs are available and all equipment is in good working order. It is also not uncommon to receive some last minute requests from your clients if anything changes for them. This calls for the ability to be flexible in your work and be a quick thinker. If you can multi-task, you will find that issues that arise are easier to deal within

**THE RELEVANCE OF FOOD AND CATERING STUDIES IN EVENT**

The Importance of Catering. A large part of planning an event revolves around the food you intend on having for your attendees. ... Often times, great food can help make an event even more memorable. Finding the right caterer is crucial to the success of any event, large or small.

The planning of food and drink at an event is an important process; the events success can rise of fall on the catering.

Catering is important as a large part of any event or party revolves around food. The food you present to your guests can either make or break your event, hence investing in a catering company is the best way out. Hiring an experienced catering company will not only save your time but also take off a huge burden from your shoulders by providing delicious food and quality service.

**QUESTION 2**

**HEATING TECHNIQUES IN FOOD PROCESSING OF PLANTS**

Ohmic heating technique

(joule heating, resistance heating, or electroconductive heating) generates heat by passage of electrical current through food which resists the flow of electricity.[1][2][3] Heat is generated rapidly and uniformly in the liquid matrix as well as in particulates, producing a higher quality sterile product that is suitable for aseptic processing.[3][4] Electrical energy is linearly translated to thermal energy as electrical conductivity increases, and this is the key process parameter that affects heating uniformity and heating rate.[3] This heating method is best for foods that contain particulates suspended in a weak salt containing medium due to their high resistance properties. Ohmic heating is beneficial due to its ability to inactivate microorganisms through thermal and non-thermal cellular damage. This method can also inactivate ant nutritional factors thereby maintaining nutritional and sensory properties. However, ohmic heating is limited by viscosity, electrical conductivity, and fouling deposits although. ohmic heating has not yet been approved by the Food and Drug Administration (FDA) for commercial use, this method has many potential applications, ranging from cooking to fermentation.

**THERMAL HEATING TECHNIQUE OF FOOD PROCESSING OF PLANTS**

**BLANCHING**

The primary purpose of blanching is to destroy enzyme activity in fruit and vegetables. It is not intended as a sole method of preservation, but as a pre-treatment prior to freezing, drying and canning. Other functions of blanching include:

Reducing surface microbial contamination

Softening vegetable tissues to facilitate filling into containers

Removing air from intercellular spaces prior to canning

**2.1 BLANCHING AND ENZYME INACTIVATION**

Freezing and dehydration are insufficient to inactivate enzymes and therefore blanching can be employed. Canning conditions may allow sufficient time for enzyme activity. Enzymes are proteins, which are denatured at high temperatures and lose their activity. Enzymes, which cause loss of quality, include Lipoxygenase, Polyphenoloxidase, Polygaacturonase and Chlorophyllase. Heat resistant enzymes include Catalase and Peroxidase

**2.2 METHODS OF BLANCHING**

Blanching is carried out at up to 100¬∞C using hot water or steam at or near atmospheric pressure.

Some use fluidised bed blanchers, utilizing a mixture of air and steam, has been reported. Advantages include faster, more uniform heating, good mixing of the product, reduction in effluent, shorter processing time and hence reduced loss of soluble and heat sensitive components.

There is also some use of microwaves for blanching. Advantages include rapid heating and less loss of water soluble components. Disadvantages include high capital costs and potential difficulties in uniformity of heating.

**2.3 STEAM BLANCHERS**

This is the preferred method for foods with large cut surface areas as lower leaching losses. Normally food material carried on a mesh belt or rotatory cylinder through a steam atmosphere, residence time controlled by speed of the conveyor or rotation. Often poor uniformity of heating in the multiple layers of food, so attaining the required time-temperature at the centre results in overheating of outside layers.

**Question 3**

**MAJOR TYPES OF FOOD PRESERVATION TECHNIQUES**

**CURING**

The earliest form of curing was dehydration or drying, used as early as 12,000¬†BC. Smoking and salting techniques improve on the drying process and add antimicrobial agents that aid in preservation. Smoke deposits a number of pyrolysis products onto the food, including the phenols syringol, guaiacol and catechol Salt accelerates the drying process using osmosis and also inhibits the growth of several common strains of bacteria. More recently nitrites have been used to cure meat, contributing a characteristic pink color

**COOLING**

Cooling preserves food by slowing down the growth and reproduction of microorganisms and the action of enzymes that causes the food to rot. The introduction of commercial and domestic refrigerators drastically improved the diets of many in the Western world by allowing food such as fresh fruit, salads and dairy products to be stored safely for longer periods, particularly during warm weather.

Before the era of mechanical refrigeration, cooling for food storage occurred in the forms of root cellars and iceboxes. Rural people often did their own ice cutting, whereas town and city dwellers often relied on the ice trade. Today, root cellaring remains popular among people who value various goals, including local food, heirloom crops, traditional home cooking techniques, family farming, frugality, self-sufficiency, organic farming, and others.

**FREEZING**

Freezing is also one of the most commonly used processes, both commercially and domestically, for preserving a very wide range of foods, including prepared foods that would not have required freezing in their unprepared state. For example, potato waffles are stored in the freezer, but potatoes themselves require only a cool dark place to ensure many months' storage. Cold stores provide large-volume, long-term storage for strategic food stocks held in case of national emergency in many countries.

**BOLING**

Boiling liquid food items can kill any existing microbes. Milk and water are often boiled to kill any harmful microbes that may be present in them.

**HEATING**

Heating to temperatures, which are sufficient to kill microorganisms inside the food, is a method used with perpetual stews. Milk is also boiled before storing to kill many microorganisms.

**SUGARING**

The earliest cultures have used sugar as a preservative, and it was commonplace to store fruit in honey. Similar to pickled foods, sugar cane was brought to Europe through the trade routes. In northern climates without sufficient sun to dry foods, preserves are made by heating the fruit with sugar. "Sugar tends to draw water from the microbes (plasmolysis). This process leaves the microbial cells dehydrated, thus killing them. In this way, the food will remain safe from microbial spoilage. Sugar is used to preserve fruits, either in antimicrobial syrup with fruit such as apples, pears, peaches, apricots, and plums, or in crystallized form where the preserved material is cooked in sugar to the point of crystallization and the resultant product is then stored dry. This method is used for the skins of citrus fruit (candied peel), angelica, and ginger. Also, sugaring can be used in the production of jam and jelly.

**PICKLING**

Pickling is a method of preserving food in an edible, antimicrobial liquid. Pickling can be broadly classified into two categories: chemical pickling and fermentation pickling.

In chemical pickling, the food is placed in an edible liquid that inhibits or kills bacteria and other microorganisms. Typical pickling agents include brine (high in salt), vinegar, alcohol, and vegetable oil. Many chemical pickling processes also involve heating or boiling so that the food is preserved becomes saturated with the pickling agent. Common chemically pickled foods include cucumbers, peppers, corned beef, herring, and eggs, as well as mixed vegetables such as piccalilli.

In fermentation pickling, bacteria in the liquid produce organic acids as preservation agents, typically by a process that produces lactic acid through the presence of lactobacillales

**CANNING**

Canning involves cooking food, sealing it in sterilized cans or jars, and boiling the containers to kill or weaken any remaining bacteria as a form of sterilization. The French confectioner Nicolas Appert invented it. By 1806, this process was used by the French Navy to preserve meat, fruit, vegetables, and even milk. Although Appert had discovered a new way of preservation, it wasn't understood until 1864 when Louis Pasteur found the relationship between microorganisms, food spoilage, and illness.

Foods have varying degrees of natural protection against spoilage and may require that the final step occur in a pressure cooker. High-acid fruits like strawberries require no preservatives to can and only a short boiling cycle, whereas marginal vegetables such as carrots require longer boiling and addition of other acidic elements. Low-acid foods, such as vegetables and meats, require pressure canning. Food preserved by canning or bottling is at immediate risk of spoilage once the can or bottle has been opened.

Lack of quality control in the canning process may allow ingress of water or micro-organisms. Most such failures are rapidly detected as decomposition within the can causes gas production and the can will swell or burst. However, there have been examples of poor manufacture (underprocessing) and poor hygiene allowing contamination of canned food by the obligate anaerobe Clostridium botulinum, which produces an acute toxin within the food, leading to severe illness or death. This organism produces no gas or obvious taste and remains undetected by taste or smell. Its toxin is denatured by cooking, however. Cooked mushrooms, handled poorly and then canned, can support the growth of Staphylococcus aureus, which produces a toxin that is not destroyed by canning or subsequent reheating.

**DRYING**

This is perhaps¬†the oldest method used by humans to preserve or process their food. Drying reduces the water content in the product , which in turn reduces the likelihood of bacterial growth. When it comes to process cereal grains like wheat, maize, oats, rice, barley, grams and rye etc., drying process is used.

**SMOKING**

Many foods such as meat, fish and others are processed, preserved and flavored by the use of smoke mostly in big smoke houses. The food processing technique is quite simple, and the combination of smoke with¬†the aroma of hydro-carbons generated from the smoke processes the food enhances the taste.

**FREEZING**

This is the most common technique used in modern world to preserve or process the food both on commercial and domestic basis. A wide range of products can be frozen to process at the same time with the help of huge cold storage facilities.

**SALTING**

Salt¬†sucks out the moisture from the food, hence is used in food processing . Meat is the best example of the food processed by salting as nitrates are used very frequently to treat meat.

**VACCUM PACKS**

‚It provide oxygen needed by germs especially bacteria to survive. This method is very commonly used for preserving processed nuts.

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