

STUDY MATERIAL

**FOOD PRODUCTION
(809)**

CLASS – XII

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UNIT 1

INDIAN REGIONAL COOKERY

Objectives:

- To enumerate and describe the factors that affect regional eating habits in various parts of India.
- To describe the unique ingredients found in various states of India.
- To prepare popular dishes from various regions of India.
- To list popular Indian dishes from various regions of India and appraise the variety of food in Indian region.

Introduction

India is a vast country with a myriad of cultures. Each culture has its own festivities and food. The amazing variety of Indian food with local ingredients and spices is something we all as Indians can celebrate and appreciate.

Factors affecting regional eating habits:

Food in any part of the world is affected by some common factors:

1. **Geographical location:** The geographical location of an area determines its climate and thus affects the local crop or produce. E.g. fish and coconut are easily available in coastal regions while not in mountains. Similarly areas where there is abundant availability of water, rice is grown as this crop requires stagnant water for some time. Similarly, in desert areas fresh produce is sundried and kept for future use and crops requiring less water are produced.
2. **Landscape and climate:** In places where cold is intense, more of fat is used while in hot climate steamed and easily digestible food is cooked.
3. **History of the region / foreign influences:** Cooking is an art which passes on from the older generation to the younger one. However, whenever there is an amalgam of two or more societies, it is natural that they both tend to adapt to each other's attributes. This includes food as well. E.g. You must have read in history that Goan region was a Portuguese colony. Today there are many dishes like *chourico*, *bacalhau*, *caldo verde*, *arroz doce* etc which are common to Goa and Portugal. Similarly, the Awadhi cuisine from the Uttar Pradesh belt today is an amalgam of local Indian and Mughal cuisines with dishes such as biryani, rizala, mughlai paranthas, kebabs and rich aromatic gravies.
4. **Religion:** India is country where people from many religions live harmoniously together. Religious beliefs of people also affect their food. E.g. Jews only eat Kosher meat, Jain or Hindus prefer vegetarian food while Christians eat meats. Similarly muslims do not eat pork and so on, Due to these religious beliefs, the ingredients and meal patterns also vary.
5. **Culture:** Culture is a sum total of ideas, customs, religion and social behaviour of a particular group of people. This includes festivities of various groups of people. E.g. Assamese celebrate harvest festival Bihu, Punjabis celebrate Baisakhi while in western India it is Makar

Sankranti and Pongal in southern parts of the country. A variety of foods are associated with festivals across the country.

Activity:

Numerous varieties of agricultural goods in the form of food grains, fruits, vegetables, tea, coffee etc are produced in India. Tons of fruits like Mangoes, Oranges, Bananas, Apples etc are exported from India each year. India is also known world over for its quality tea and spice exports. Find out more about major agricultural produce exported from the country, the state they are grown in and how the geography of the area helps in quality production.

Regional Indian Food

- a) **NORTH ZONE:** - North zone of India comprises of the states of Jammu and Kashmir, Himachal Pradesh, Punjab, Uttarakhand, Uttar Pradesh, Haryana, Madhya Pradesh and Chhatisgarh. The states of Madhya Pradesh and Chhatisgarh are at times separately classified as Central India. This zone also includes the Union Territories of Delhi, Chandigarh.

Geographical features ó Northern most states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand are the mountainous regions of mighty Himalayas. Usually weather is colder than the rest of India and in winters a major area of the above states receives snowfall. The area is a popular tourist destination during summers as an escape from extremely hot climate in plains. In contrast the states of Punjab, Haryana, Uttar Pradesh are the Northern plains with many river beds such as Ganges and its tributaries, Yamuna, Beas, Satluj etc which forms the fertile plains. Madhya Pradesh and Chhatisgarh are dotted by Vindhya and Satpura ranges and the land is irrigated by Narmada and Mahanadi.

Cuisine of Jammu & Kashmir:

The famous Kashmiri banquet called *Waazwan* is a feast and comprises of thirty six courses of food served in order. Specially prepared by cooks known as *wazas*, the meal is served in large bronze thali called *thramis* that can be shared by four persons and indicates brotherhood.

Major festivals: Ramzan, Id, Mahashivratri

Staple food: Rice is the staple food. People like to eat bread from local bakery.

Unique Ingredients:

- Lotus Stem (Nadru) ó grown in shallow waters of Dal and Wular lakes.
- Shallots (Praan) ó It is a hybrid between onion and shallot and has a strong garlic like flavor.



- Saffron ó Dried stigma of Crocus flower, it is expensive and is used to flavor and colour rice, desserts and gravies.

- Morels (Guchhi) ó Expensive and perishable mushrooms sold in dried form associated with royal cooking.

- Saag (Haaq) ó Type of greens which are cooked like Punjabi saag.

- Ver ó A paste of various spices including praan, dried and shaped liked pressed spheres (*tikkis*) and sundried. They can be stored for future use. A small piece is broken and added to curries to flavour them.
- Vegetables such as turnips (Gogji) and round radish (Muzh) are used on their own or with meats.
- Abundance of fruits (apple, pomegranate, plum, cherry etc) and dry fruits.

Dishes:

- Roganjosh: Shoulder of lamb is simmered in a red gravy made with praan, curd, and spices such as degchi mirch, fennel powder, ver and cardamom powder are added.
- Dum aloo: Small potatoes are first parboiled, pricked all over and deep fried to a crisp outer coating. They are then stewed in a curd based gravy flavoured with fennel powder and kashmiri red chillies.
- Yakhni: Pieces of lamb are stewed in a thin curd based gravy flavoured with fennel, cardamom and dried ginger powder to make yakhni.
- Rista: Poached lamb dumplings in a rich red gravy. The lamb is freshly pounded to make a paste which is then flavoured and made into dumplings.
- Gushtaba: Similar to rishta, it is lamb dumplings in white curd based gravy.
- Tabak Maaz: Lamb ribs are boiled with aniseed powder, ginger, turmeric, asafoetida and cinnamon powder till it absorbs all the water. It is then pan fried in hot ghee.
- Kehwa: The Kashmiri green tea flavoured with saffron and chopped almonds.

Cuisine of Himachal Pradesh:

Festivals: Kullu dussehra is very popular. Apart from this all major festivals are celebrated.

Dishes:

- Dham ó Dham is a meal cooked on special occasions or festivals. This includes *Madra*, *Kadi*, *Moong dal*, *Khatta* etc. It is traditionally served on plates made out of leaves.
- Madra ó This is a curd and lentil based curry. The lentil used is usually chickpeas or kidney beans.
- Palda ó These are potato chunks cooked in thick curd gravy with spices and turmeric.
- Sidu is a local bread made from wheat flour. The dough is kneaded and set aside for some hours for the yeast to settle and the dough to rise. This dough is rolled with a variety of stuffing and is put on direct flame of bonfire to be par-cooked and then later steamed to complete the cooking. This distinct bread is usually enjoyed with *ghee* or butter alone or can be savoured with mutton or daal as well.
- Mittha as the name suggests is a local dessert of Himachal Pradesh. It is prepared with sweetened rice mixed with a generous helping of raisins and other dry fruits.
- Kullu trout - Trout fish is marinated with subtle spices to bring out the natural flavours and then shallow fried in mustard oil.



Cuisine of Punjab:

Festivals: All major festivals including Gurupurab, Baisakhi, Lohri etc

Ingredients:

- Fish ó Many river fish are found and eaten as a popular snack or in a gravy.
- Meat and chicken ó Both red and white meats are equally popular and cooked in variety of gravies.
- Milk & milk products ó Farming and animal husbandry are two major economic sectors in the region. Hence there is ample use of milk and milk products in cuisine.
- All seasonal vegetables such as brinjals, lady finger, mustard leaves, bathua, fenugreek leaves, gourds etc are eaten.

Staple food: Both wheat and rice are equally popular.

Tandoor: The concept of -Sanjha Chulhaó community cooking in tandoor is very popular. Tandoor is a clay over which is used to cook vegetables, kebabs, rotis etc and is lit by coal. The temperature reaches up to 400°C.

Dishes:

- Sarson ka saag aur makke ki roti ó A winter delicacy prepared by a cooking and grinding green leafy vegetables. A major part is mustard leaves along with some spinach or even fenugreek leaves. The saag is typically served with rotis made out of *makki flour*.
- Pindi chole ó A dry preparation made by soaking and boiling chickpeas. The cooked chickpeas are flavoured with pindi chole masala, salt, ginger juliennes, green chillies and coriander.
- Kadhi Pakoda ó A gravy is prepared with curd and gram flour. Dumplings made out of gram flour are simmered in the gravy so as they absorb the kadhi and become soft.
- Rara gosht ó A mutton preparation made with both chunks of mutton and minced mutton flavoured with spices cooked in a pot.
- Dal makhani ó Whole black gram is cooked with onion, tomato puree and spices to a creamy consistency.
- Amritsari Macchi ó Fish fillet which is marinated and cooked to a crispy texture by coating with gram flour batter and deep fried.
- Murg Makhani ó More popular in restaurant as *butter chicken*, the chicken is marinated and cooked in tandoor. It is then put in makhani gravy ó a tomato based gravy with a buttery mouthfeel.
- Dal amritsari ó Split black gram and Chana dal cooked together and tempered.
- Ras kheer ó A sweet made by cooking rice in sugarcane juice.

Cuisine of Haryana:

Haryana is known for its cattle wealth and is the home of the famous Murrah buffalo and local Haryana cow. Hence there is an abundance of milk and milk products in Haryanvi cuisine. People make butter and ghee at home and use these liberally in their daily diet.

Dishes

- Mixed Dal - Various dals (Chana, toor, masoor and moong dal) are mixed with spices and are cooked in ghee. The semi crushed grains of the dal allow the dish to have a rich and thick texture to eat the dal. Most people have dal with plain rice or jeera rice.

- Bajra Khichri - For preparing bajara khichri, bajara is soaked overnight. Then Moong daal and bajara are washed together and cooked in a pressure cooker along with spices.
- Kachri ki chutney - It is made from ground kachri, garlic, onion, other spices, and yogurt.
- Alsi ki Pinni is a sweet dish made from alsi (flax seed or lin seed) wheat flour, sugar, nuts and ghee. All these ingredients are used to make a mixture, which is then rolled into balls. This sweet dish is also healthy as alsi is rich in omega 3 and iron.



Cuisine of Uttar Pradesh:

Festivals: All major festivals such as Holi, Diwali, Dussehra, Teej, Makar sakranti, Janmashtami, Id, Ramzaan etc are celebrated with fervour.

Staple food: Mostly wheat towards the west and rice towards the eastern districts. Sugarcane is grown in abundance and there are many sugar mills in Uttar Pradesh.

Cooking food: The food in the Hindu kitchens is divided as Kacchi rasoi i.e meal consists of food cooked in water like rice, dals, khichdi, chapatti etc while there is Pucci Rasoi where meal consists of food cooked with a medium of fat / ghee such as paranthas, pooris, gravies etc.

Dishes: The daily meal consists of lentils, one or two vegetables (cauliflower, carrots, peas, gourds, lady finger, brinjals, alocaccia etc), curd, chapatti, rice, papad, pickles, salad.

- Thandai ó Drunk to cool off summers, it consists of icy cold milk blended with pistachio, cardamom, black pepper, saffron and sugar.
- Ghevar ó A sweet markedly prepared during the month of saawan, using a chilled batter of refined flour poured in a mould kept in hot oil. The contact creates a mesh like structure of flour which is the base. It is then dipped in sugar syrup and coated with khoya and nuts.
- Khasta Kachoris ó Deep fried soft bread, stuffed with filling made up of spiced pulses such as urad dal pithi.
- Gajak and rewri ó Typically made during winters, sweets made of sugar or jaggery with sesame seeds and set to a crunchy texture.
- Pulao / khichdi- Rice cooked with pulses or vegetables and simply eaten with some pickle, papad and mattha (salted buttermilk). Khichdi in various forms is associated with celebration of Makar Sankranti in many parts of country.
- Petha ó A sweet made up of pumpkin / ash gourd popularly made in Agra.
- Pede ó A sweet made up of milk popular from Mathura.
- Gujiya ó A sweet made on Holi in which refined flour dough is rolled and filled with nuts and khoya and is deep fried.



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Lucknow / Awadh – The modern day capital of Uttar Pradesh is Lucknow. Lucknow was also the capital of the kingdom of Awadh and till date is epitome of legendary hospitality and food. The splendour of Nawabi era is still evident in the food spread called *Dastarkhwan*. Although

Awadh is not a state anymore, the Mughlai food of Lucknow and surroundings is known as Awadhi cuisine.

Unique Ingredients –

- Spices like allspice (kebabchini), royal cumin (shahi jeera), mace (javitri), saffron (kesar), baobee, dried lemon grass (jarakush), sandalwood, rose petals, alum, vetiver etc
- A popular spice mix called Lazzat ó ótaam is used to flavour dishes.

Equipments

- Deg: a pear shaped brass pot.
- Lagaan: Shallow and round copper utensil to cook large cuts of meat and poultry.
- Mahi tawa: Similar in appearance as a *parat*, a big round flat bottom try with raised edges used to cook kebabs.

Dishes

- Pulao ó Pulaos were popular in Awadhi cuisine and made from best long grain fragrant rice and stewed in meat stocks.
- Sheermal ó Light flaky bread cooked in tandoor with saffron and milk smeared over it.
- Kaliya ó A yellow gravy with use of turmeric and saffron with meat.
- Rizala ó A mutton preparation in creamy white yoghurt based gravy.
- Shammi kebab ó Meat is cooked with chana dal and then minced and spiced.
- Kakori kebab ó It is made from lamb meat clear of any sinews, minced with fat and kidney, seasoned with numerous spices and skewered and cooked on coal.
- Galavati kebab ó Made so as to melt in mouth these are also popular as tunde ke kebab. Made by keema breast of lamb and cooked on mahi tawa, the texture is like a paste.
- Shahi tukda ó Deep fried pieces of bread dipped in sugar syrup and rabri is poured over it. It is decorated with chopped nuts and warq.



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Cuisine of Madhya Pradesh:

Major festivals: All major festivals are celebrated. Shivaratri of Ujjain is famous.

Staple food: Both wheat and rice are equally popular.

Dishes:

- Daal bafla - Dal Bafla is a dish that hails from the heart of India, that is, Madhya Pradesh. It is similar to the Rajasthani staple dal bati or the Bihari dish litti. The dish is essentially a ball of baked dough that is served with toor dal



- Bhutte ka kees - Grated corn roasted in ghee and later cooked in milk with spices.

- Malpua - Malpua is majorly prepared with flour, fried in ghee and then dipped in the sugar syrup. Malpua

is best served with rabdi for a complete treat.

- Bhopali Gosht Korma ó A mutton preparation known for the subtle taste of its gravy.
- Palak puri - Palak Puri is eaten as a breakfast meal and it is best served with aloo sabzi and raita for a perfect lunch meal. Palak Puri is prepared with wheat dough mixed with grind spinach leaves and some spices to get the best taste.
- Murar ke kebab ó The lotus stem is cleaned, boiled and roasted. It is mixed with other vegetables, spices etc shaped as kebabs and shallow or deep fried,

EAST ZONE: The east zone of the country is comprised of states of Bihar, Odisha, Jharkhand, North eastern states and West Bengal. The states of Bihar and West Bengal lie on the Indo-Gangetic plain. Jharkhand is situated on the Chota Nagpur Plateau. Odisha lies on the Eastern Ghats and the Deccan Plateau. The interior states have a drier climate and slightly more extreme climate, especially during the winters and summers, but the whole region receives heavy, sustained rainfall during the monsoon months. Snowfall occurs in the extreme northern regions of West Bengal. This region is rich in minerals, flora, and fauna in dense forests.

Cuisine of West Bengal

Festivals: All major festivals are celebrated. Durga pooja of Bengal is very famous.

Unique Ingredients:

- Fish ó Being the coastal belt, different varieties of marine water fish is available. The Ganges basin provides some fresh water fish. Popular fish are hilsa, carp, sea bass, prawns, shrimps etc
- Mustard paste (Kasundi)
- Darjeeling for famous tea plantations
- Panch phoran ó A mixture of five spices ó cumin, mustard, fenugreek, onion seed and fennel seed used in Bengali cuisine.
- Runner beans (barbatti) ó thin long beans
- Red spinach or laal shaak



Staple food: Rice

Dishes:

- Bhaja ó Anything deep fried with or without coating with a batter ó brinjals, vegetables or even fish.
- Chingri malai curry ó Small sized prawn are stewed in a gravy made with boiled onion paste and coconut milk
- Doi mach ó Fish is stewed in a yoghurt based gravy
- Kosha mangsho ó A mutton dish marinated and cooked to a spicy aromatic semi-dry gravy cooked in mustard oil.
- Aloo posto ó Potatoes cooked with poppy seeds flavoured with whole spices and turmeric.
- Chorchori ó A vegetable dish tempered with panch phoran and flavoured with poppy seeds and mustard seed paste.
- Luchi ó Deep fried bread similar to pooris but made with refined flour.
- Radha ballavi ó Similar to kachori from Uttar Pradesh where urad dal pithi is filled in the dough. It is rolled and deep fried.
- Chutneys ó made with mangoes or tomatoes tempered with mustard seeds are popular. Dates and raisins are also used.

- Mishti doi ó Milk is cooked with some caramelized sugar, cooled and set into pots for preparing sweet yoghurt.
- Chenna sweets ó rasgullas, chamcham, sandesh etc
- Snacks such as jhaal muri & phuchkas.

Cuisine of Odisha -

Festivals:

All major festivals are celebrated with fervour. A unique feature is the famous Rath Yatra of Jagannath Puri temple

Unique Ingredients:

- Mustard paste
- Coconut milk and gratings
- Fish and seafood

Staple food: Rice is the major staple diet.

Dishes:

- Kaanika ó A traditional form of pulao where rice is cooked in desi ghee with a pinch of turmeric powder, salt, black pepper and sugar. Raisins and nuts too are added.
- Chhena Poda ó Cheena Poda literally means burnt cheese. This is known to be Lord Jagannath's favourite sweet and is often offered to him at the Puri Temple. It is prepared with well-kneaded chhena or fresh cottage cheese, sugar and nuts and baked.
- Pahala Rosogulla - The slightly golden chenna dumplings combined with semolina are shaped in balls and cooked in light sugar syrup.
- Alloo dum dahi vade - A popular street food, it is a combination of spicy alloo dum gravy combined with dahi vade, topped with chopped onion and sev.
- Macha ghanta ó It is made up of fried head of the fish and is served with hot steamed rice and salad. The curry is a rich blend of onions, potatoes, garlic and the regular spices. Vegetarians may make a plain 'Ghanta' by avoiding fish in it.
- Dalma ó This dal is made with roasted moong dal without any onion or garlic. A few regular spices along with a cup of vegetables such as pumpkin, plantain, yam and papaya, are added to the dal.
- Santula - This dish is a fried or boiled vegetable curry that consists of a blend of raw papaya, potato, tomato and brinjal with mild spices.
- Khattas ó Khatta refers to a type of sour side dish in Odisha. There is a wide variety of khattas such as Khajur Khatta, Tomato Khatta, Mango Khatta, and Dahi Nadia.
- Patrapada macha ó Fish is marinated in spices and a paste of mustard seeds, poppy seeds, cumin seeds etc. It is wrapped in banana leaf and steamed. This is served hot with rice.
- Macha besara ó Local catch of fish cooked in a mustard based gravy.



Cuisine of Bihar –

Festivals: Bihar is home to many pilgrimage sites such as Bodh Gaya, Mithila and Vaishali. A major festival is Chhath pooja.

Ingredients:

- River fish in northern areas
- Milk & milk products ó curd, buttermilk etc

Staple food: Wheat, Bajra and rice are the staple diet.

Dishes:

- Litti chokha ó Littis are round spicy baked balls of wheat flour or sattu with a crisp outer texture. It is often served with chokha which is a vegetable dish made with boiled/ roasted mashed spicy mixture of potatoes and brinjals.
- Khichdi ó Mix of Rice, Dal and several Vegetables; steamed together to give a distinctive taste of different ingredients combined in one dish.
- Sattu ó Ingredients. Sattu is prepared by dry roasting mainly barley or bengal gram. They are then made into a flour after roasting. In Bihar sattu is served as a savoury drink or even filled in a parantha.
- Khaja - This is a crispy layered dessert made from wheat flour, sugar, mawa/ khoya and deep fried in oil.
- Dal Peetha- This dish is prepared by rice flour dough that is stuffed with lentil paste. The dumpling is then steamed or fried.
- Laai ó Lightly fried cereal such as puffed rice is coated with jaggery syrup and shaped into balls.



Cuisine of North Eastern States

Festivals:

- Bihu is a popular harvest festival and dance form. Many other festivals are celebrated.

Ingredients:

- Cash crop ó teak, cotton and jute.
- Assam famous for tea plantations
- Fish ó Most fish is from river Brahmaputra and its tributaries. It can be cooked fresh or preserved as fermented fish.
- Bamboo shoots ó the pulp is used as a vegetable and may also be stuffed with meat and cooked.
- Betel nut ó Popularly exported
- Sweet potatoes ó An important root vegetable cooked in various ways.
- Rice ó A large variety of rice is grown in these states. A variety of rice called *boka saul* is consumed after soaking in water but not cooking. It is traditionally eaten with curd.
- Fruits ó orange, pineapple, papaya, apple, jackfruit, litchis, banana etc
- Assam is popular world over for quality tea plantations

Staple food: Rice is the major staple diet. However maize and millets are also eaten.

Dishes: Influence of the orient belt and Chinese cuisine

- Khar (Assam) - The main ingredients of this unique dish are raw papaya and pulses. Pork is added that has a crisp outer and soft inside. Bamboo shoots are also added. It is eaten with steamed rice.

- Pitha (Assam) ó A snack that is eaten sweet for breakfast while salted ones are coated in light butter and tea. Rice mixed with light spices and salt/sugar is moulded into thin tubes and stuffed inside a hollow stem of bamboo. The Pitha is then fried/roasted/barbequed inside the hollow bamboo stem and this gives the pitha an exotic flavor.



- Sanpiau (Mizoram) - It is a traditional snack which is prepared with rice porridge which is served with freshly pasted coriander leaves, spring onions, crushed black pepper, finely powdered rice and last but not the least the zesty fish sauce.

b) WEST ZONE: This zone has the states of Rajasthan , Gujarat, Goa and Maharashtra. This also includes the union territories of Daman & Diu and Dadra & Nagar Haveli. The Thar desert and Rann of Kutch are the desert areas in Rajasthan and Gujarat. These areas have a hot and dry weather. Most other region falls in the peninsular plateau. The Western Ghats along the coast of southern Gujarat, Maharashtra and Goa make the region humid. The vegetation varies from tropical rainforests along the Konkan coast to thorny bushes and shrubs in northern Gujarat. Narmada, Tapi and Godavari rivers flow through the land.

Cuisine of Rajasthan

Major Festivals: All major festivals are celebrated.

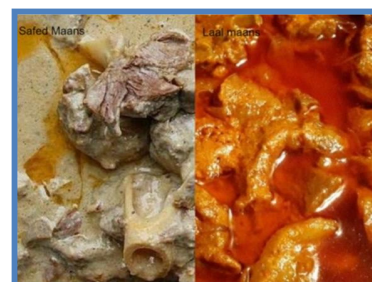
Ingredients:

- Millets (Bajra) ó This crop can grow in sandy soil, hence popular in rajasthan.
- Cluster beans (Gawar ki phalli)- A kind of beans locally grown and cooked in a dry or semi-dry form.
- Ker ó A kind of a wild caper berry.
- Sangri ó A kind of a dessert bean cooked with ker.
- Kachri ó A berry like fruit which is dried and is used to add sour flavor to the food and also acts as meat tenderizer.
- Mangodi- dried dumplings made from a mix of dal and spices sundried and stored.
- Papad ó lentils mixed with spices, made into a dough and rolled into thin sheets. They are then sundried and stored.

Staple food: Majorly wheat and bajra based breads are popular.

Dishes:

- Laal maans: The red meat is made using lamb, curd, onions and garlic flavoured with a typical chilli called mathania chilli from rajasthan.
- Safed maans: Meat with a white curd based gravy thickened with onions.
- Sooley: An appetizer where fish or thin slices of meat is marinated and cooked on open charcoal grill



(sigri).

- Ker sangri: A dry preparation similar to a pickle.
- Dal baati churma: The daal is panchmel daal ó a mix of five type of lentils cooked together and tempered with desighee. The baatis are dumplings of whole wheat flour baked on dry cow dung cakes. They are then dipped in hot ghee. Churma is a sweet preparation made by frying whole wheat flour and desi ghee.
- Gatte: Gatte are made by kneading gram four with curd, mustard oil, dry fenugreek leaves, turmeric and salt into a dough. The dough is shaped into long cylinders and poached in salted water. The gattas are then cut into 1 inch long pieces and cooked in a curry.
- Papad ki sabzi: Curry made with potatoes and fried papads.
- Namkeens: Rajasthan (Bikaner) is popular for various types of savories called namkeen that form a popular tea time snacks. The namkeens are made up of variety of toasted, fried or baked ingredients such as dal, potatoes, besan etc,
- Mirch ke pakode: a variety of large green chill is stuffed with a spicy mix, coated with batter and deep fried.

Cuisine of Goa

Ingredients:

- Fish ó Being the coastal belt, different varieties of marine water fish is available ó prawns, crabs, lobsters, pomfrets clams, mussel and oysters are equally popular.
- Chicken, lamb, pork and beef are equally popular.
- Coconut
- Toddy vinegar ó fresh sap of coconut palm is fermented to vinegar.
- Kokum ó used as a souring agent.
- Palm jaggery ó obtained from sap of palm trees and used as a sweetening agent in sweets.
- Dried fish and prawns ó dried and salted prawns (*Kismur*) and fish are used in cooking.

Staple food: Rice

Dishes:

- Khatkhatem ó Assorted vegetables diced and cooked in a thick and mild coconut masala.
- Sorpotel ó Offals and meat is cut in cubes and boiled and then cooked in a spicy and sour (vinegar) gravy.
- Vindaloo ó A pork preparation in which spices are ground with toddy vinegar to give a tangy flavor.
- Chouricos ó A remanant of Portugal reign, it is a spicy sausage.
- Rechado ó A red coloured spicy paste made from red chillies, vinegar and spices, smeared over fish and roasted.
- Caldeen ó A thick fish curry made by grinding coconut, turmeric, ginger, garlic, cloves and cumin. Base of the gravy is coconut milk.
- Caldo verde ó goan soup thickened by mashed potatoes garnished by spinach.
- Xacuti ó A curry with roasted coconut and spices with chicken or meat in it.
- Sannas ó A fermented and steamed batter of rice flour and toddy similar to idlis.



- Bibinca ó A dessert made in layered form which is baked one at a time. The mixture is made from coconut milk, eggs, nutmeg, cardamom powder and traditionally has sixteen layers.
- Dodol ó a sweet made by paste of soaked rice, jaggery and coconut milk cooked in ghee and prepared similar barfi.

Cuisine of Maharashtra

Festivals: All major festivals are celebrated. Ganesh puja and Dahi handi festivals are popular.

Ingredients:

- Fish ó Being the coastal belt, different varieties of marine water fish and some fresh water fish from rivers are popular. Pomfret from Arabian sea is popularly eaten,
- Yam (suran) ó A large root vegetable is extensively used in maharashtrian cuisine.
- Pepper ó Variety of peppers are grown and used in local cuisine.
- Kokum ó Wild mangosteen a dark coloured fruit which is salted and dried. It is used as souring agent and also used to prepare sol kadhi ó a popular beverage.
- Val ó Small white beans used to make rice or as a vegetable.
- Bombay duck ó A type of fish popularly eaten in Mumbai.
- Tindli ó Fresh green gherkins used to prepare vegetable or pulao.
- Coconut ó Being in coastal belt, use of coconut is common.
- Sesame seeds ó White ones often combined with jaggery in sweets.
- Goda Masala ó A mixture of roasted and powdered spices coriander seed, cumin, sesame seed, cinnamon, cloves, coconut, mace, cardamom, peppercorns, bay leaf, mustard seeds, asafoetida, poppy seed, fenugreek seeds.
- Malvani Masala ó A mixture of roasted and powdered spices dry red chillies, coriander seeds, cloves, peppercorns, cumin seed, dagad phool, turmeric, asafoetida, nutmeg, star anise and fennel.
- Vatana ó Dried yellow peas called usal.
- Khuskhus (Poppy seed) ó Used as thickening agent in form of paste.
- Sago (Saboodana) ó used to prepare sweets.
- Peanuts ó Often added to gravy for thickening and taste. Also added to rice.
- Fast food ó Batata vada, paani poori, bhel etc

Staple food: Majorly rice even though wheat is also popular.

Dishes:

- Ukadiche Modak ó Steamed rice flour dumpling stuffed with jaggery, coconut and steamed. Offered to Lord Ganesha on Ganesh Chaturthi.
- Amti ó A lentil preparation thin and flavourful.
- Bhareli Wangi ó Baby brinjals stuffed with a mix of spices, coconut, peanut etc and cooked dry.



- Gavalaychi kheer ó A sweet made by sooji flakes, milk and nuts.
- Puran poli ó A wholewheat bread stuffed with split yellowpeas cooked with sugar and cardamomí popularly prepared on Holi.
- Valachi khichdi ó A rice preparation made with rice, spices and vals.
- Sol kadhi ó A drink with digestive properties, kokum extract with coconut milk and seasoned.
 - Zunka bhakar: Zunka is made with gram flour, onions, salt, and tempered with chillies and garlic. Bhakar is a bread made from dough of jowar flour and water baked on charcoal.

Cuisine of Gujarat

Festivals: All major festivals are celebrated. The state is popular for Navratras and Garba.

Ingredients:

- Most of the Gujaratis are vegetarians. There is an intensive use of jaggery, vegetables and grains.
- Fish ó Being the coastal belt, different varieties of marine water fish is available. The Ganges basin provides some fresh water fish. Popular fish are hilsa, carp, sea bass, prawns, shrimps etc. Non-vegetarian is cooked in mostly Bohri or Parsi homes.
- Farsans ó a generic term for a variety of Gujarati snacks ó dhokla, khandvi, fafda, khakra, khaman etc

Staple food: Breads prepared from bajra, millets and flour.

Dishes:

- Khandvi - Small rolled crepes made with cooked batter of besan, curd, ginger and green chillies served topped with chutney.
- Oondhiya ó A delicious blend of vegetables cooked in oil. Potaot, sweet potatoes, yam, brinjals etc with a mixture of coconut, green chillies, lime, sugar, garlic, and coriander cooked on slow flame.
- Doodh pak ó Rice cooked in milk served hot or cold.
- Patrani macchi ó A parsi preparation in which fish fillet is covered with chutney made up of green coriander, green chillies coconut ect, is wrapped in banana leaves and steamed.
- Salli jardaloo murgi ó chicken cooked in spicy gravy with apricots and garnished with potato straws
- Dhansak ó A combination of five dals, vegetables and spices cooked with mutton served with brown rice.
- Malai nu khaja ó Rounds of flaky pastry sweetened and stuffed with malai
- Methi thepla ó Thin bread made with wheat flour, bajra, besan, methi and spices.

- c) **SOUTH ZONE:** States of Andhra Pradesh, Telangana, Karnataka, Kerala and Tamil Nadu occupy the South Zone on India. This zone is flanked by oceans on three sides and therefore, home to scenic beaches. This also includes the Union Territories of Lakshadweep, Pondicherry and Andaman & Nicobar Islands. In addition, culture and languages are strikingly different from rest of India. Most of the above states fall into the region of Deccan plateau towards centre and the mountainous terrain of eastern and the western ghats near Bay of Bengal and Arabian sea.

Cuisine of Andhra Pradesh

Festivals: All major festivals are celebrated such as Ramadan, Id, Sankranti and Pongal

Ingredients:

- Fish ó Being the coastal belt, different varieties of marine water fish and some fresh water fish from rivers are popular.
- Lamb / Mutton ó very popular in making most non-vegetarian biryanis and gravies.
- Elephant Yam ó A large root vegetable.
- Chickpeas ó A pulse prepared in north as pindi chole.
- **Parboiled Rice** ó The rice after being harvested is soaked and then steamed in a large steam pressures. This is done at controlled temperatures and controlled moisture to discourage swelling of the grains. The rice is then dried and milled. This process makes the rice more nutritious.
- Field beans & cluster beans
- Fast food ó Bohri samosa (minced meat filled samosas).
- Spices ó betel roots (pan ki jad), vetiver roots (khas ki jad), stone flower (pathar ke phool), marathi mogu etc
- **Potli masala** - Potli ka masala is tied in a muslin cloth and dropped in the water and bring it to a boil. The spices releases the flavour into the water. The water is then used to cook rice, which gives the aromatic flavour to Hyderabad Biryani. Potli ka masala is used in Biryani, Nihari, Haleem, Paya etc Major ingredients are bay leaf, coriander seeds whole, vetiver roots, sandalwood powder, dry rose petals, black cardamom, kabab chini, cinnamon, lichen (pathar ka phool), betel root (pan ki jadi), Star anise, Kapoor kachli and Kasuri methi.
- **Bhojwar masala** ó The masala is used to prepare all types of curries and specially in stuffed vegetables. Major ingredient are coriander seeds, bay leaves, red chilli powder, cloves black caraway, stone flower, poppy seeds groundnut, coconut, cumin, sesame, fenugreek seeds and mustard seeds.

Staple food: Majorly rice in the form of biryanis.

Dishes:

- Dalcha ó Meat is cooked with chana dal and whole spices with yoghurt.
- Haleem ó Lamb is cooked along with broken wheat until soft and then pounded till it resembles a paste.
- Gil-e-firdaus ó A dessert made by cooking grated white marrow with milk and sugar thickened with sago seeds and khoya.
- Kacchi biryani ó The meat is marinated for a longer period with tenderizers such as raw papayas, hung curd, spices and condiments. The parboiled rice and marinated meat are then arranged in layers with mint, fried onions, and saffron. The handi is then sealed and allowed to steam. The seal of handi is broken at the time of meal.
- Baghare baingan ó baby brinjals are slit and stuffed with a mixture of coconut, tamarind, spices, peanuts etc and cooked on slow flame in kadahi.
- Nihari ó A spicy meaty stew.

Cuisine of Tamilnadu



Festivals: All major festivals are celebrated. Pongal is the harvest festival and newly harvested rice and moong dal are cooked together in a new clay pot. For festivity it is usually sweet (*sakkarai pongal*). It can be made savoury too using salt and pepper (*venn pongal*).

Ingredients:

- Fish ó Being the coastal belt, different varieties of marine water fish and some fresh water fish from rivers are popular. Pomfret from Arabian sea is popularly eaten.
- Rice - A wide variety of rice is used each with its own quality is used in households.
- Banana ó Each house has a plantain tree and raw bananas, ripe bananas, leaves, flower all are used in cooking.
- Coconut ó Being a coastal belt, coconut is found in abundance and is used grated or by extracting coconut milk for gravies.
- Vegetables such as drumsticks, yams, various types of gourds and shallots.
- Fresh neem flowers ó used in pachadi specially on Tamilian new year.

Staple food: Rice ó preferably parboiled rice

Dishes:

- Kozhambu (pronounced as *kolambu*) ó A thin stew of vegetables with spices. Can be thickened with a paste of rice and lentils to make it a spicy stew.
- Pachadi ó South Indian raitas ó grated carrots, deep fried okra, roasted brinjals etc are mixed with smooth thick curd which is tempered with curry leaf, mustard seed, urad dal and whole red chillies.
- Kootu - a mixed vegetable preparation with coconut.
- Avial ó A vegetable preparation made with raw bananas, drumsticks beans cooked in coconut milk and spiced sour curd.
- The concept of -tiffinø which means idlis, dosas, vada, sambhar, coconut chutney etc. (breakfast)
- Poriyaals ó fresh seasonal vegetables
- Variyaals ó deep fried crisp vegetables
- Mysore pak ó A sweet made with gramflour, sugar and ghee
- Appams - A dish made with rice batter bowl-shaped thin pancakes made from fermented rice flour that are thicker in the center
- Idiappams ó Also known as String hoppers, these are made from steamed rice flour made into a dough with water and a little salt, and forced through a mould similar to those used for pasta to make the strings. They are cooked by steaming.

Cuisine of Karnataka

Festivals: All major festivals are celebrated. Mysore dussehra, nine days of navratri and Ugadi, the new year as per lunar calendar are popular.

Ingredients:

- Fish ó Being the coastal belt, different varieties of marine water fish is available.
- Banana
- Coconut
- Vegetables such as okra, yam, brinjals etc

Staple food: Rice

Dishes:

- Bisi bele huliya / Bisi bele bath - Rice cooked with dal, vegetables and spices; like Huli with rice, but often richer
- Chitranna - Cooked rice flavoured with spices, particularly oil-popped mustard seeds and turmeric
- Tomato gojju - Cooked cut or mashed tomato with a sweet-sour gravy.
- Mysore pak- A sweet made with Chickpea flour, sugar and ghee.
- Huli- Combination of vegetables and lentils simmered with spices, coconut, tamarind and seasoned with Ghee, asafoetida, curry leaves and mustard, it is an integral part of every formal meal.
- Akki roti - A thick, flat roti made with a dough of rice flour, chillies, onions and salt; the dough is shaped and flattened by hand.
- Dosai, Idli, Vada as in Tamil cuisine.

Cuisine of Kerala

Festivals: Apart from all major festivals, Onam the harvest festival and Vishu the astronomic new year are celebrated.

Ingredients:

- Fish ó Being the coastal belt, different varieties of marine water fish is available.
- Banana ó Used in cooking, as a fruit and also to make chips.
- Coconut ó Common to the coastal region
- Mangoes ó Varieties of mangoes are used in cuisine as pickles or curries.
- Jackfruit ó Used both as a vegetable when raw and as fruit when ripe
- Tamarind ó The souring agent
- Drumstick or sambhar phalli ó Used in sambhar and cooked with lentils.

Staple food: Rice

The Sadya - Hindus in Kerala other than Namboodris may eat meat or fish. However Namboodris are strictly vegetarian and involve them in service of God. The famous ‘**Sadya**’ meal has evolved as food made by Namboodri Brahmin, which is eaten like Prasad from God, is never tasted to keep it pure. The meal is had sitting on the floor and is served on banana leaves. The narrow tip of the leaf should face the left side of the diner and salt is served first on the extreme left of the leaf. On bottom left half of the leaf is placed a small yellow banana, banana chips & other fries and poppadum. Then beginning from the top left half of the leaf are placed lime curry, mango pickle, injipuli, thoran, olan, aviyal, pachadi and khichadi. Rice is served at the bottom center. Sambhar and kalan are poured over the rice. After the meal sweet is served.

Dishes:

- Malabari Parantha ó flaky shallow fried paranthas made with a very soft dough which is flattened by flipping on the table, oil is applied and then rolled like lacchha parantha.
- Pathiri ó A flat bread made from rice flour. It can be cooked on griddle, deepfried or even steamed.



- Puttu- thin vermicelli strands of rice dough similar to string hoppers.
- Meen moilee ó Fish cooked in a gravy of coconut milk with onions, ginger, garlic, green chilli, kokum and spices etc. Two extracts of coconut milk are added in this gravy.
- Kozhi curry ó Chicken curry made by adding onion, tomatoes, ginger, garlic spices and coconut milk.
- Ishtews ó vegetable or meat stew.

Indian cuisine is vast and rich in heritage. The recipes are passed through generations. We should be proud of this culture, use of unique local ingredients and the association of food with occasions, seasons and festivities. The Indian cuisine is a vast ocean of depths that are still unexplored. Indians have a proud heritage of hospitality ‘*Atithi devo bhava*’ and food is one of the mediums to express this sense of welcome and warmth.

Summary

India is a country with vast diversity. There are many factors that affect the cuisine of an area. These include geographical location, history, culture, religion etc. We must attempt to learn the variety of ingredients, dishes, spices that make the cuisine of India unique. There are many dishes associated with festivals, seasons and occasions. Though the Indian cuisine is diverse, the sense of hospitality is common among all cultures and areas of the country.

-----Exercise-----

Q.1. Compare the ingredients used in cooking of the coastal regions as compared to the ones used in Gangetic plains in India.

Q.2. What are the factors that affect cuisine of a region? Explain giving suitable examples.

Q.3. Which food is associated with following festivals in India:

- a) Sankranti
- b) Pongal
- c) Ganesh chaturthi
- d) Holi
- e) Month of saawan
- f) Lord Jagannath

Q.4. Differentiate between:

- a) Poriyal and Variyal
- b) Khichdi and Pachadi
- c) Rista and Gushtaba
- d) Pathiri and Malabari parantha
- e) Appams and Idiappams

Q.5. Write short notes on:

- a) Sadya meal
- b) Cuisine of Awadh

Q.6. Match the following:

Column A

Pal payasam

Dal Bafla

Akki roti

Puttu

Bhaja

Column B

Variyal

Pathiri

Kheer

Dal Baati

Idiappam

Q.7. Name the state in which following spice mixes are used to flavour food:

- a) Malvani masala
- b) Panchphoren
- c) Potli ka masala
- d) Lazzat-e-taam
- e) Goda Masala
- f) Ver

Activity:

India is home to a wide number of mega community kitchens serving thousands of meals each day. Many of such kitchens are operated on massive quantity cooking and the food is offered free of cost to one and all visiting. Some of them are ó Sri Sai Sansthan Prasadalya (Shirdi - Maharashtra), Harmandir Sahib, (Amritsar - Punjab), Akshaypatra (Hubli ó Karnataka), Jagannath Temple (Puri ó Odisha).

Find out more about the operation of such kitchens near your residential cities. Note the ingredients used, equipments, dishes prepared and food offered as *prasad*. Also note the variety of foods associated with festivals. Discuss the role of these kitchens in promoting equality and harmony.

Practical:

1. Prepare 8 menus, two from each zone in India. Each menu (*preferably from one state*) should be comprised of four dishes in the following form –

- One preparation of chicken/meat/fish/egg or pulse
- One preparation of vegetables
- One preparation of rice/roti (breads)
- One preparation of soup/salad/chutney/beverage such as chaach etc that can accompany or enhance the meal.

Note: The menus may be repeated for better practical proficiency.

UNIT 2:

INDIAN SNACKS

Objectives:

- To define the term Snacks and enumerate major ingredients used in preparation of different Indian snacks.
- To list popular Indian snacks from various regions of India and describe them.
- To prepare popular snacks from various regions of India.

Introduction

A snack is a food generally eaten between meals and is smaller in portion size than major meals of the day. Snacks come in a variety of forms ó fresh made at home, bought from street vendors or shops or as packaged food (Ready to eat such as chips, wafers, *namkeens* etc. or convenience foods such as frozen fries). These food items are usually portable, quick to eat and satisfying hence also termed as comfort food. They can be sweet, salty, sour and spicy. In Indian culture, it is hospitable to offer some snacks to guests with tea/coffee or other regional beverages.

Globalization has led to many food items from other countries being prepared or sold in Indian markets as snacks. These include sandwiches, burgers, spring rolls etc that are now quite popular in the Indian market. At the same time, we must appreciate the wide variety of traditional snacks of India.

Indian snacks: Traditional Indian snacks are prepared with a vast variety of ingredients. These include:

- Flour ó Refined flour (*Maida*), wheat flour, rice flour, gram flour etc
- Pulses ó Green gram, Black gram etc
- Vegetables ó Potato, onion, brinjals, green chillies, green coriander, lemon etc
- Flavouring agents - Coconut, Tamarind, Kokam etc
- Spices & condiments ó Salt (Table salt, Black salt etc), chilli powder, turmeric powder, carom seeds, cumin seeds, mustard seeds, coriander powder, garam masala, chaat masala and a vast variety of spice blends.
- Nuts ó Peanuts, Cashews etc

The methods of cooking these snacks also vary from frying, steaming, roasting, sautéing, griddling etc. Many snacks have crossed regional boundaries and are relished all across the nation.

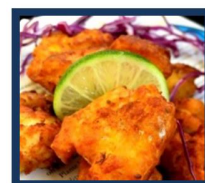
Regional classification of Indian snacks

NORTH ZONE:

- Samosa ó A conical shaped crust is prepared with refined flour dough. This is then filled with a spicy mixture of potatoes, sealed and deep fried. Variations include variation in

shape such as *potli* (bundle) samosa or a paper thin crust such as in *Bohri samosa*. The filling may be cooked spiced mixture of pulse or even minced meat.

- Pakoda ó Fritters made with a variety of ingredients such as potato, cauliflower, green chillies, brinjals, bread etc coated with a batter of seasoned gram flour and deep fried.
- Golgappe ó Also popular as *paani puri* in west and *phuchkas* in east. They are made up of flour or semolina dough, rolled thin in small discs and deep fried so as to swell and make a thin crisp shell. This is then filled with a variety of ingredients such as boiled potatoes, boiled grams, filled with spiced water, chutney or even curd.
- Aloo tikki ó A boiled potato based patty, spiced and may be stuffed with dal and shallow fried to a very crisp outer texture. It is served topped with curd, chutneys, grated radish and chana.
- Rajkachori ó A crust similar to golgappa but larger in size filled with a vast variety of ingredients to give variety of textures and taste. There is boiled potato, curd, chutneys, spices, boondi, pomegranate seeds, boiled black grams, papdi, nylon sev etc
- Dal kachori ó A flaky and soft textured deep fried crust of refined flour, filled with a spiced mixture of urad dal.
- Kebabs ó A variety of ingredients, coarsely minced and seasoned are skewered and cooked on charcoal grill or may even be griddled, shallow or deep fried.
- Tikkas ó A variety of charcoal grilled snacks made from chunks of vegetables, paneer, meats of fish marinated, skewered and grilled.
- Amritsari macchi ó Local fish fillet, cut, marinated and deep fried after coating with gram flour batter and served as a crisp fritter.
- Kulcha matar ó Baked leavened bread kulcha served along with or filled with a spiced mixture of matra (dried white peas).
- Namkeens: Rajasthan (Bikaner) is popular for various types of savories called namkeen that form a popular tea time snacks. The namkeens are made up of variety of toasted, fried or baked ingredients such as dal, potatoes, besan etc,



EAST ZONE:

- Jhaal muri ó Puffed rice mixed with many other titbits like peanuts, onion, tomato, boiled potato, green chillies, green coriander, mixture of spices and some mustard oil.
- Phuchka ó Parallel to the golgappas of north, phuchkas are a popular street food in Bengal.
- Singhara ó The samosas of the north are Singhara in west Bengal.
- Beguni - Brinjals sliced and battered before being deep fried in oil.
- Fuluri - Cauliflower florets coated with seasoned gram flour batter and deep fried in oil.
- Fish kabiraji ó Local fish fillet marinated, coated in beaten egg and bread crumbs and pan fried.
- Dimer devil ó Boiled egg wrapped in spicy potato filling, coated with bread crumbs and deep fried.
- Aloo kabli ó A salad that combines tamarind, roasted cumin, black salt and other spices mixed with boiled cubed potatoes, green chillies, coriander, chopped onion & black chanas.
- Ghoogni ó It is spiced chickpea or Bengal gram based curry enjoyed itself or served as a meal with hot puris.



- Chikvi (Tripura) ó A fragrant stir fry made with dominantly bamboo shoots and pork, flavoured with jackfruit seeds, green papaya, green chillies, ginger, fresh lime leaves and rice flour paste.



WEST ZONE

- Batata vada - A popular potato snack recipe from Maharashtra which is made by dipping spiced potato balls in chickpea flour batter and deep fried. Batata vada is mostly served with chutney or sandwiched in a Pav.
- Pani puri ó Parallel of the golgappas of the north.
- Bhel puri ó A savoury snack made with puffed rice, tossed with vegetables and tangy chutneys. An essential ingredient of Bhel is sev which are savory thin crunchy noodles made of chickpea flour.
- Fafda ó It is a fried crispy crunchy tasty snack made with gram flour, laced with carom seeds and black pepper. It is usually served with papaya sambharo and besan chutney.
- Khakra - Round, very thin and crispy in texture, khakhras are commonly eaten in the morning with breakfast. They are made of wheat flour, oil and salt. There is a vast variety of khakras, a popular one being methi khakra.
- Khaman ó It is prepared with a fermented batter of gram flour with spices and steamed. It may be tempered and soaked in lemon sugar syrup. It is fluffier than dhokla.
- Dhokla ó It is made with a fermented batter of rice and split chickpeas and is steamed. It is denser than khaman.
- Poha ó It is pressed rice cooked with onions, potatoes, peanuts and seasoning like chillies, lemon and curry leaves
- Upma ó It is cooked as a thick porridge from dry-roasted semolina or coarse rice flour, mixed with small cubes of vegetables and lightly spiced.
- Misal pav - Misal is a spicy flavourful curry made of moth beans (missal). The curry is made of lot of spices, onion, garlic, ginger and chillies. It is then topped with boiled potatoes, *chiwda*, *sev*, chopped onions, coriander, green chillies and served with a dash of lemon. The spicy and thick mixture of the sprouted lentils is enjoyed with *pav* or breads toasted with butter.
- Sev Usal ó Usal is prepared with white peas / dried safed vatana. It is served with gathiya, pav, spring onion, sweet chutney and tari. Tari is a spicy gravy prepared using chilli powder, garlic paste, oil and salt. It is topped with sev.
- Khandvi ó It consists of yellowish, tightly rolled bite-sized pieces and is primarily made of gram flour and yogurt.
- Gathiya ó It is a crunchy and spicy deep fried strands made from gram flour dough.
- Dabeli - A Gujarati snack that has its origin in Kutch. It features a pav drizzled with hot and sweet chutneys, stuffed with a potato masala, and peanuts, toasted and adorned with sev.
- Bhakarwadi - It is a traditional Marathi cuisine sweet and spicy snack made from gram flour dough made into spirals stuffed with a mixture of coconut, poppy seeds and sesame seeds.



Gujarati snacks are collectively known as *Farsans*.

SOUTH ZONE

- Idli ó Rice Idli or Rava Idli are a type of savoury rice cake made by steaming a batter consisting of fermented black lentils and rice.
- Vada ó Uddina Vada, Rava Vada, Masala Vada, Medu vada is a traditional dish from South Indian cuisine served with coconut chutney and Sambar as a popular breakfast in most of the Indian restaurants. This crispy deep fried snack is made from urad dal (black gram lentils) and some seasoning. At times chopped onion, curry leaves and some other spices may be added. The mixture is shaped like a ring and deep fried.
- Kuzhi Paniyaram ó It can be served as a savoury or a sweet. It is made from black lentils, and rice and the preparation process is similar to that of an Idli but cooked on gas in a paniyaram chatti.
- Dosa - Masala Dosa or Rava Dosa is a type of pancake made from a fermented batter. It is somewhat similar to a crepe in appearance. Its main ingredients are rice and black gram.
- Uthappams - They are prepared like dosa but the batter and uthappams are a lot thicker and topped with chopped vegetables. They are served with sambhar and chutney.
- Kothu Parotta - Parotta, made from flour, is a flatbread that is a typical household food in North. Kothu Parotta is made from shredded parotta, mixed with either egg, meat or vegetables.
- Channa sundal ó It is a south Indian recipe of a no onion no garlic stir fried chickpeas with spices and coconut. It is prepared during Vinayaka chaturthi or Janmashtami puja.
- Murukku - Murukku is typically made from rice and urad dal flour. The flours are mixed with water, salt, asafoetida and either sesame seeds or cumin seeds. The mix is kneaded into a dough, which is shaped into spiral or coil shapes either by hand or using a mould. The spirals are then deep fried in vegetable oil.
- Banana chips ó Dried slices of banana, deep fried to a crisp texture.



Summary:

A snack is a food generally eaten between meals and is smaller in portion size than major meals of the day. These food items are usually portable, quick to eat and satisfying. They can be sweet, salty, sour and spicy. A variety of ingredients are used in preparing these snacks ó vegetables, pulses, spices, flours and flavouring agents are used in preparing Indian snacks. A brief description of few regional Indian snacks is given above.

-----Exercise-----

Q.1. List any ten major ingredients used in preparation of Indian snacks. Write the name of the snack in which they are used.

Q.2. Many Indian snacks have crossed regional boundaries and are popular all over the nation. Justify the statement giving suitable examples.

Q.3. Describe any three methods of cooking used in preparation of Indian snacks. How do they add to the texture and consistency of the product?

Q.4. Match the following:

Column A

Paniyaram

Bhel puri

Samosa

Upma

Khaman

Dimer devil

Poha

Batata vada

Column B

Puffed rice

Pressed rice

Gram flour

Refined flour

Semolina

Potato

Eggs

Black gram & rice

Q.5. Write a short note on *Farsans*.

Practical:

2. Prepare any two snacks from each zone of India with accompanying chutney/salad etc.

Note: The snack preparation may be repeated for better practical proficiency.

UNIT 3

INDIAN GRAVIES

Objectives:

- To explain the importance of preparation of basic gravies in a hotel.
- To list basic Indian gravies and describe their major ingredients and method of preparation.
- To enumerate the dishes in which the basic gravies are used.
- To prepare basic Indian gravies.

Introduction

India is a country known for unique blend of spices in food along with varying textures, taste, richness, body and flavours. Indian gravies are the sauce counterpart of the western cuisines. They coat the main ingredient such as meats, chicken, vegetables or cottage cheese etc to form the main dish in a meal.

In hotel industry it is useful to prepare these basic gravies and keep them ready. Some modifications in the basic gravy in terms of spices or few ingredients can help a chef make multiple dishes in less time. This is important as today the hotel menus are very extensive. However, the guest does not wish to wait for a long time between ordering a dish and the food being served. Hence, some pre-preparations are necessary to prepare a dish on the menu in less time. Keeping basic gravies ready is one such task that helps to produce multiple dishes in lesser time.

Pre-preparation for gravies:

- Boiled onion paste: Peel and cut onions in about 10 chunks. In a pot cover with water and bring to boil. Simmer till the onions are translucent and tender. Let it cool. Grind along with the cooking liquid to make a paste.
- Fried onion paste: Peel and cut onions in slices. Deep fry in oil to a brown colour. Cool. Mix with little curd / water. Grind to a smooth paste.
- Spinach paste: Sort good green leaves from wilted ones or unwanted grass. Wash. Chop roughly. Put in a pot, cover with water. Add some salt. Bring to boil and simmer. When tender, let it cool. Grind to a smooth paste.
- Ginger garlic (green chilli) paste: Peel ginger and garlic. Wash and roughly chop. Mix few spoons of water sufficient to grind. Grind to a smooth paste. At times, many chefs add washed green chillies to this and grind together.
- Poppy seed paste: Wash and soak poppy seeds for about 45 min. Cover with water. Bring to boil and simmer till the seeds are soft. Grind with cooking liquid to a smooth paste.
- Cashew nut paste: Roast or fry cashews till golden in colour. Cool. Add a little water and grind to make a paste.
- Melon seed paste: Wash melon seeds. Cover with water. Bring to boil and simmer till tender. Cool. Grind to a smooth paste.
- Green cardamom powder: Coarsely crush green cardamom. Mix with equal quantity of sugar and grind to form a powder. Strain through a sieve.

- Almond paste: Wash and cover with water in a pot. Simmer till tender. Peel. Grind to a fine paste by adding some water.
- Coconut paste: Scrape coconut. Mix with little water and grind to a smooth consistency

Types of gravies:

1. White Gravy:

Base: A boiled onion paste forms the base of the gravy.

Major ingredients: Boiled onion paste, Ginger garlic paste, poppy seed/ cashew/ melon seed paste, milk/ khoya, cream OR curd.

Spices: Whole garam masala such as bay leaf, clove, cinnamon stick, Cardamom etc. (May be removed post cooking after extraction of flavours), Salt, White pepper powder or grinded green chillies with ginger garlic.

Optional: Rose water, Pinch of sugar

Dishes in which used: Base for kormas, safed maans, shahi paneer etc. Often used in combination with makhani or hariyali gravy to form dishes like Methi malai paneer / murg, Malai kofta etc

Care: Onion should not colour while cooking in ghee / oil. Hence cook on low flame. Add curd / milk / cream at the final finishing stage of the dish as they tend to deteriorate rapidly.

Recipe:

S.No.	Ingredient	Quantity
1	Onions	350 gms
2	Ginger	25 gms
3	Garlic	25 gms
4	Green chillies	5-6 nos
5	Green cardamom powder	2 gms
6	Mace powder	2 gms
7	Salt	To taste
8	Green cardamom whole	4 nos
9	Black cardamom	2 nos
10	Bay leaf	2 nos
11	Cinnamon stick	1"pc
12	Cloves	4-5 nos
13	Poppy seeds	25 gms
14	Coriander powder	20 gms
15	Melon seeds	25 gms
16	Garam masala powder	5 gms
17	Oil / Ghee	160 gms
18	Almonds	25 gms
19	Cashew nuts	60 gms
20	Fresh cream	150 ml
21	Curd	175 gms
22	Khoya	85 gms



23	Kewra water	Few drops
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Pre-preparation:

- Prepare boiled onion paste.
- Prepare cashew nut paste.
- Prepare poppy seed and melon seed paste.
- Prepare ginger garlic green chilli paste.
- Grate khoya.
- Mix about 50 ml water in curd and whisk to a smooth consistency.

Method:

- Heat oil in a pot.
- Add whole spices i.e. Green cardamom, black cardamom, cloves, cinnamon, bay leaf.
- Cook for few seconds. Add onion paste and cook on medium flame continuously stirring so as not to change the colour.
- Add grated khoya and continue cooking on low flame so as not to change the colour.
- Add ginger garlic green chilli paste. Continue cooking over gentle heat for few minutes.
- Add, coriander powder and salt. Add two table spoons of water and cook till masala leaves oil.
- Add beaten curd. Bring to boil while stirring.
- Simmer and add cashew nut paste, melon seed paste, poppy seed paste and almond paste.
- Simmer for some time.
- Add cream.
- Sprinkle garam masala powder, cardamom and mace powder.
- Simmer till the consistency is thick but pouring.
- Cool, cover and refrigerate for future use.

2. Makhani Gravy:

Base: A boiled tomato paste forms the base of the gravy.

Major ingredients: Boiled tomato paste, Ginger garlic paste, Cashew paste, Cream, Unsalted white butter

Spices: Whole garam masala such as bay leaf, clove, cinnamon stick, Cardamom etc. (May be removed post cooking after extraction of flavours), Salt, Red chilli powder or grinded green chillies with ginger garlic, roasted and powdered kasoori methi

Optional: Pinch of sugar or honey, Garam masala

Dishes in which used: Murg makhani, panner makhani or in combination with white gravy.

Care: Tomatoes chosen should be deep red and not too sour in taste.

Recipe:

S.No.	Ingredient	Quantity
1	Tomatoes	1.8Kg



2	Canned tomato puree	400 gms
3	Ginger	20 gms
4	Garlic	20 gms
5	Green chillies	8-10 nos
6	Deghi mirch powder	20 gms
7	Butter (Unsalted white butter)	275 gms
8	Cream	250 ml
9	Green cardamom	5 gms
10	Cloves	5 gms
11	Cashew nut	120 gms
12	Salt	To taste
13	Honey	20 gms
14	Kasoori Methi	15 gms
15	Garam masala (Optional)	10 gms

Pre-preparation:

- Prepare cashew nut paste.
- Roast kasoori methi turning continuously. When crisp, rub between palms to make a powder.
- Prepare ginger garlic green chilli paste.
- Wash and cut tomatoes roughly in chunks.

Method:

- Cook together tomatoes, tomato puree, ginger garlic green chilli paste, salt, deghi mirch powder, green cardamom, cloves and some water. Simmer the mixture till tomatoes are well done and mashy. The mixture should thicken.
- Strain to remove pips, peel etc. Reheat the liquid obtained in a clean pot. Simmer. Add butter, fresh cream and garam masala.
- Cook for few minutes. Add honey and kasoori methi powder. Check seasoning (salt & pepper).
- A thick and pouring consistency should be obtained. Cool.
- Cool, cover and refrigerate for future use.

3. Green / Hariyali Gravy:

Base: A boiled spinach paste forms the base of the gravy.

Major ingredients: Boiled spinach paste, Ginger garlic paste, Cashew paste. Cream or butter for finishing.

Spices: Mild chillies, Sweet spices - cinnamon powder, mace powder, cardamom powder, nutmeg powder. Coriander powder, turmeric powder etc.



Optional: Other greens such as fenugreek leaves, mint and green coriander can be used with spinach. To thicken or flavour add cashew paste, coconut paste may be added.

Dishes in which used: Palak paneer, Saag / palak meat, Palak corn, Nilgiri murg (with mint and coriander) etc

Recipe:

S.No.	Ingredient	Quantity
1	Onions	300 gms
2	Ginger	15 gms
3	Garlic	15 gms
4	Green chillies	5-6 nos
5	Green cardamom powder	2 gms
6	Mace powder	2 gms
7	Salt	To taste
8	Spinach	500 gms
9	Methi leaves	80 gms
10	Nutmeg powder (or grated)	1 gms
11	Cinnamon powder	2 gms
12	Cloves	2 nos
13	Turmeric powder	5 gms
14	Coriander powder	20 gms
15	Red chilli powder	5 gms
16	Oil / Ghee	160 gms
17	Cashew nuts	40 gms

Pre-preparation:

- Clean, wash and chop spinach and methi leaves. Boil and grind to a paste.
- Prepare cashew nut paste.
- Prepare ginger garlic green chilli paste.
- Prepare boiled onion paste.

Method:

- Heat oil/ghee in a pot. Add onion paste and cook to a light brown colour.
- Add turmeric powder, coriander powder, red chilli powder. Cook on slow flame.
- Add pureed tomatoes and salt. Cook till masala leaves oil.
- Add spinach paste, cashew paste, nutmeg powder, mace powder, cinnamon powder and cardamom powder. Cook on medium flame to a pouring thick consistency.
- Cool, cover and refrigerate for future use.

Note: One can add a table spoon of flour mixed in little water while cooking spinach paste to ensure that it blends well to a smooth texture.

4. Yellow Gravy:

- Base: A boiled onion paste forms the base of the gravy.
- Major ingredients: Boiled onion paste, Ginger garlic paste, poppy seed/ cashew/ melon seed paste, milk / cream OR curd.



- Spices: Whole garam masala such as bay leaf, clove, cinnamon stick, Cardamom etc. (May be removed post cooking after extraction of flavours), Salt, White pepper powder or grinded green chillies with ginger garlic.
- Optional: Saffron instead of turmeric powder, Rose water, Pinch of sugar
- Dishes in which used: Base for kormas. Often used in combination with makhani or hariyali gravy to form dishes like Methi malai paneer / murg, Malai kofta etc
- Care: Onion should not colour while cooking in ghee / oil. Hence cook on low flame. Add curd / milk / cream at the final finishing stage of the dish as they tend to deteriorate rapidly. To prevent curdling of curd, a spoon of flour may be mixed with it.

Recipe:

S.No.	Ingredient	Quantity
1	Onions	350 gms
2	Ginger	25 gms
3	Garlic	25 gms
4	Green chillies	8-10 nos
5	Green cardamom powder	2 gms
6	Mace powder	2 gms
7	Salt	To taste
8	Green cardamom whole	4 nos
9	Black cardamom	2 nos
10	Bay leaf	2 nos
11	Cinnamon stick	1"pc
12	Cloves	4-5 nos
13	Turmeric powder	5 gms
14	Coriander powder	20 gms
15	Red chilli powder	5 gms
16	Garam masala powder	5 gms
17	Oil / Ghee	160 gms
18	Cumin seed	5 gms
19	Cashew nuts	60 gms
20	Fresh cream	50 ml
21	Curd	175 gms

Pre-preparation:

- Prepare boiled onion paste.
- Prepare ginger, garlic green chilli paste.
- Prepare cashew nut paste.
- Whisk curd to a smooth consistency. Mix about 50 ml water.

Method:

- Heat oil in a pot.
- Add whole spices i.e. Green cardamom, black cardamom, cloves, cinnamon, bay leaf.
- Cook for few seconds. Add onion paste and cook on medium flame continuously stirring so as not to change the colour.
- Add ginger garlic green chilli paste. Continue cooking over gentle heat for few minutes.

- Add turmeric powder, red chilli powder, coriander powder and salt. Add two table spoons of water and cook till masala leaves oil.
- Add beaten curd. Bring to boil while stirring.
- Simmer and add cashew nut paste and cream.
- Sprinkle garam masala powder, cardamom and mace powder.
- Simmer till the consistency is thick but pouring.
- Cool. Cover and refrigerate for future use.

Brown (onion tomato) Gravy :

Base: Chopped onions and tomatoes form the base of the gravy.

Major ingredients: Chopped onions, chopped tomatoes, Ginger garlic paste



Spices: Cumin seeds, whole garam masala such as bay leaf, clove, cinnamon stick, Cardamom etc. (May be removed post cooking after extraction of flavours), Salt, Red chilli powder or grinded green chillies with ginger garlic, coriander powder, turmeric powder

Optional: Mustard seeds

Dishes in which used: This gravy is used in North Indian cooking and forms the base for many curries. The stage at which it is given in recipe, it can be used as tempering for dals (boiled lentils) and dry vegetable dishes. When water is added to the base and it is cooked further, it forms a curry which can be used to simmer vegetables, cottage cheese, meats, eggs etc. This gravy is usually chunky in texture, but if desired it can be cooked and pureed for a smooth consistency.

Care: Cumin seeds should not burn and turn black. Onions are to be browned. If overcooked, they impart a bitter flavour & if under cooked, they never blend with liquid (water) and give a raw taste and aroma.

Recipe:

S.No.	Ingredient	Quantity
1	Tomatoes	600 gms
2	Onions	600 gms
3	Ginger	50 gms
4	Garlic	50 gms
5	Green chillies	8-10 nos
6	Black cardamom	2 nos
7	Salt	To taste
8	Bay leaf	4 to 6 nos
9	Cinnamon stick	1"pc
10	Turmeric powder	10 gms
11	Coriander powder	30 gms
12	Red chilli powder	10 gms
13	Garam masala powder	15 gms
14	Oil / Ghee	85 gms

15	Cumin seed	5 gms
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Pre-preparation:

- Peel and chop onions.
- Chop tomatoes.
- Prepare ginger garlic green chilli paste.

Method:

- Heat oil / ghee in a pot.
- Add cumin seed. Cook to a light brown colour.
- Add whole spices i.e. Black cardamom, bay leaf and cinnamon. Cook for 10 seconds.
- Add onions. Fry on a medium heat till evenly browned. Keep stirring.
- Add ginger garlic green chilli paste. Cook while stirring till brown.
- Add turmeric powder, salt, coriander powder and red chilli powder. Add two table spoons of water.
- Cook on medium flame till masala begins to leave oil.
- Add tomatoes. Cook while stirring till masala leaves oil.
- Add garam masala powder.
- Cool, cover and refrigerate for future use.

5. Kadhai Gravy :

Base: Chopped onions and tomatoes form the base of the gravy.

Major ingredients: Chopped onions, chopped tomatoes, Ginger garlic paste, capsicum & onion chunks.

Spices: Coriander seeds, whole red chillies, whole garam masala such as bay leaf, clove, cinnamon stick, Cardamom etc. (May be removed post cooking after extraction of flavours), Salt, Red chilli powder or grinded green chillies with ginger garlic, coriander powder, turmeric powder

Dishes in which used: This gravy is used in north Indian cooking and forms the base for chicken, vegetables or paneer.



Care: Add sautéed chunks of onion and capsicum near serving time to let them remain slightly crisp. Tomatoes used for preparation of gravy should be red and not too sour.

Recipe:

S.No.	Ingredient	Quantity
1	Tomatoes	1 kg
2	Canned tomato puree	200 gms
3	Onions	400 gms
4	Ginger	50 gms
5	Garlic	50 gms
6	Green chillies	8-10 nos
7	Whole red chillies	8 -10 nos
8	Salt	To taste

9	Turmeric powder	10 gms
10	Coriander powder	30 gms
11	Red chilli powder	5 gms
12	Garam masala powder	10 gms
13	Oil / Ghee	85 gms
14	Coriander seed	30 gms

Pre-preparation:

- Peel onions. Keep some one inch chunks. Chop the rest.
- Chop tomatoes.
- Cut capsicum in one inch chunks.
- Prepare ginger garlic green chilli paste.
- Broil whole coriander seeds and whole red chillies. Coarsely grind.

Method:

- Heat oil / ghee in a pot.
- Add chopped onions. Cook to a light brown colour.
- Add ginger garlic green chilli paste. Cook while stirring till brown.
- Add turmeric powder, salt, coriander powder and red chilli powder. Add two table spoons of water.
- Cook on medium flame till masala begins to leave oil.
- Add tomatoes. Cook while stirring till masala leaves oil.
- Add little water to get desired pouring thick consistency. Add garam masala powder.
- Boil and simmer. Add coarsely grinded coriander seeds and whole red chillies.
- Cool, cover and refrigerate for future use.
- Add sautéed chunks of onion and capsicum near finishing time.

Summary:

There are many gravies prepared in Indian cuisine. These vary in colour, texture and flavour. The base gravies are prepared and stored in hotels. This base, with little modifications and finishing is used in preparing a variety of dishes on the menu in lesser time. The basic gravies as white gravy, brown onion tomato gravy, hariyali gravy, yellow gravy, kadhahi gravy and makhani gravy.

-----Exercise-----

- Q.1. What are Gravies and how do they contribute to a food?
- Q.2. How is the preparation of basic gravies important in a commercial hotel?
- Q.3. What are the thickening agents used in preparation of various Indian gravies?
- Q.4. Write the methods of preparing:
- a) Boiled onion paste

- b) Fried onion paste
- c) Cashew nut paste

Practical:

3. Prepare each gravy base and use it to prepare any one dish.

UNIT 4:

INDIAN SWEETS

Objectives:

- To describe the importance of sweets in Indian tradition and festivities.
- To list popular sweets from various regions of India and write a brief description of each.
- To explain role of sugar cookery in preparation of sweets.
- To prepare popular sweets from various regions of India.

Introduction:

Meetha or Mithai are the two most accepted words for Indian confectionary dishes. They are eaten on all festivities and are an important part of every major meal. They are a way of conveying greetings in all form of celebrations. A chef expert in preparing Indian sweets is termed as *Halwai*. The shops of sweets are found in every city and the chef uses locally sourced ingredients in preparing delectable sweets. A variety of ingredients are used in preparation of sweets:

- Main ingredient –
 - a) Milk: Usually from cows or buffalos. At times pre-packaged condensed milk may also be used.
 - b) Khoya / Mawa: It is prepared by boiling and reducing milk to a semi solid stage. Depending on the fat content in the milk and method of preparation one can have a variety of khoya such as *Batti ka khoya*, *Daab ka khoya* or *Danedar khoya*.
 - c) Chenna – Fresh cottage cheese made by curdling cow milk.
 - d) Other ingredients - Gram flour, Coconut, Pulse such as moong dal, refined flour, pumpkin, carrot, fruits such as apricot etc
- Sweetening agents – Sugar (Refined sugar, *Boora*), Jaggery (from sugarcane or palm)
- Flavouring agents – Nuts such as almonds, pistachio, cashew, cardamom, nutmeg, cloves, rose water etc
- Garnish – Slivers of dry fruits, Silver or gold varq (thin leaves of silver or gold), rose petal, coating of ingredients such as sesame seeds, coconut powder etc

- Fats & Oils – Desi ghee, refined oils and Vanaspati (partially hydrogenated vegetable oil) are used to provide texture, flavour and as a cooking medium for many sweets.

Many sweets are associated with festivals in India. Few are listed below:

Festival	Sweet
Holi	Gujia
Lohri	Til gajak
Pongal	Sarkarai pongal
Gudi padwa	Til gud laddoos, Shrikhand
Saawan ki teej	Ghewar
Ganesh chaturthi	Ukadiche Modak
Eid	Seviyan, Zarda
Gurupurab	Karah prasad

Many Indian sweets have crossed the regional boundaries and are popular all across the nation. For every occasion, celebration or as a token of respect, sweets are gifted and eaten. To prepare these sweets, expertise is required. The quality of ingredients, method, skill and final presentation, all are equally important. For preparing many sweets, one needs to prepare sugar syrup. Though it sounds simple, but preparing sugar syrup of required consistency requires skill.

Sugar cookery:

Sugar syrup is an important ingredient for preparing most sweets. Sugar for Indian sweets is used in various forms such as *Boora* or Jaggery. However, many a times one needs to prepare sugar syrup (*chasni*) to a required consistency. The sugar syrup can be prepared by taking two cups of refined sugar and one cup of water in a thick bottom pot. Begin to cook the mixture while stirring to dissolve the sugar completely. As water evaporates, the concentration of sugar keeps increasing.

Keep testing this syrup to check its consistency. To do this, dip a wooden spoon in the syrup and lift out. Allow cooling for a few seconds and touch the syrup with a forefinger and then touch the forefinger to the thumb. Pull the thumb and forefinger apart gently.

- Half-thread consistency is when a single thread is formed and breaks immediately when your forefinger and your thumb are pulled apart.
- One-thread consistency is when a single thread is formed and does not break when your forefinger and your thumb are pulled apart.
- Two-thread consistency is when two threads are formed as above. This stage is also called the soft ball stage - when a drop of syrup of this consistency is dropped into a bowl of cold water, it forms a soft ball.
- Two and a half thread consistency is when three threads are formed but one breaks immediately as finger and thumb are pulled apart. This stage is also called the firm ball stage - when a drop of syrup of this consistency is dropped into a bowl of cold water, it forms a firm but pliable ball.
- Three-thread consistency is when three threads are formed as above. This stage is also called the hard ball stage - when a drop of syrup of this consistency is dropped into a bowl of cold water, it forms a hard ball.

Stage	Temperature range	Use in Indian sweets
Half thread	100°C	Rasgulla
One thread	104°C - 106°C	Thin coat on sweets such as gujiya
Two thread / Soft ball	112°C - 116°C	Variety of Burfi, Gajak
Two & half thread / Firm ball	118°C - 120°C	Sohan papdi
Three thread / Hard ball	121°C - 130°C	Chikki

Though the sugar can be cooked beyond this stage too such as caramel, but usually these are the only stages used in preparation of most of the Indian sweets. One can use a candy thermometer to measure the stages precisely. However, many Halwais use the above method to check the stage of sugar cookery while preparing sweets.

Following are few of the sweets commonly prepared across the nation:

North Zone:

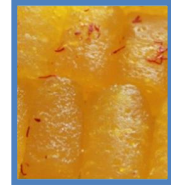
- Sohan Halwa - It is made by boiling a mixture of [water](#), [sugar](#), [milk](#), and [cornflour](#) until it becomes solid. Saffron is used for flavoring. [Ghee](#) is used to prevent it from sticking to the pan. Almonds, pistachios, and cardamom seeds are added.



- Doda - The fudgy, chewy form of barfi is made with milk, sugar, nuts and ghee.
- Gulabjamun - Gulabjamun is made from khoya shaped as round balls, which is deep fried and then soaked in sugar syrup.
- Imarti: A sweet prepared by using a moong dal batter being piped in hot oil in a flower shape. It is deep fried and soaked in sugar syrup.
- Jalebi – A spiral shaped sweet prepared by refined flour batter fried in hot oil and soaked in sugar syrup.
- Kheer – It is prepared by boiling milk and cooking it with rice and sugar. Many variants of kheer are prepared all over India while replacing rice with semolina, tapioca, vermicelli, roasted dal etc. It is flavoured with cardamom, raisins, saffron, cashews, pistachios, almonds or other dry fruits and nuts.
- Gajrela / Gajar ka halwa – A carrot based sweet prepared by cooking grated carrots in milk, water and sugar, adding some khoya, ghee and nuts.
- Moong dal Halwa – The sweet is prepared in winters using coarsely grinded moong dal, ghee, khoya sugar and nuts.
- Kaju katli / Kaju barfi – It is barfi made with cashew paste, khoya, sweetening and ghee cooked and set together.

- Chikki – It is a traditional Indian sweet made from peanuts and jaggery. Many variety of chikkis are prepared in which instead of peanut roasted Bengal gram, puffed rice etc may be used.

- Petha - It is a translucent soft candy from Agra. Usually rectangular or cylindrical, it is made from the ash gourd vegetable. Many flavoured variants are available, e.g. kesar petha, angoori petha etc.



- Kulfi falooda – A summer treat, kulfi it is made using sweetened, thickened milk, may be flavoured and set into moulds. The falooda is prepared using cooked corn flour batter, passing it through mould and making it in long noodle like shape. The kulfi is cut in pieces and served with falooda.
- Peda - A sweet famous from [Mathura](#). The main ingredients are [khoya](#), sugar and flavoured with [cardamom](#) seeds. The colour varies from a light brown to a caramel colour.
- Phirni: A sweet prepared from powdered rice, milk, cardamom, saffron and sugar.
- Zarda: Fragrant basmati rice with saffron, nuts and sugar.
- Seviyan: Vermicelli cooked with milk, nuts, sugar and saffron.

East Zone:

Bengali sweets made of chenna (from curdling cow's milk) are popular. These include:

- Sandesh: A famous dessert made from chenna, palm jaggery and reduced milk.
- Roshogulla / Rasgulla: It is made by shaping a dough of *cheena* and flour in to balls and cooking them in sugar syrup.



- Chhena jilapi: This is made in a manner very similar to regular [jalebis](#) which are popular throughout India. However, the basic ingredient is fresh chenna which is kneaded and shaped and deep fried. They are then soaked in sugar syrup.
- Chhena Murki: It is a Bengali dessert recipe that is prepared using chenna and sugar syrup shaped into small cubes.
- Chamcham: Cham cham is a Bengali sweet made by curdling milk and then shaping the coagulated solids to cylindrical shape pieces. These are cooked in sugar syrup similar to rasgullas to get a soft, spongy and light texture. Cham cham sweet is then filled / topped with mawa and nuts.

Other popular sweets from the East zone are:

- Bhapa Doi or Baked Yogurt is hung curd blended with milk and condensed milk and baked with a water bath in the oven or steamed on the stove top. It is an important part of sweet dish in the Bengali weddings and special occasions like festivals etc.
- Patisapta is a traditional Bengali sweet which is made with thin pancakes made out of refined flour / rice flour or semolina. A mixture of grated coconut, khoya and jaggery is then filled in the pancakes and rolled into cylindrical shape.
- Thekua: It is prepared by mixing jaggery, flour and ghee, flavoured with cardamom powder & coconut powder, shaped in to balls and deep fried.
- Chhena Poda – Cheena Poda literally means burnt cheese. This is known to be Lord Jagannath's favourite sweet and is often offered to him at the Puri Temple. It is prepared with well-kneaded chhena or fresh cottage cheese, sugar and nuts and baked.
- Pahala Rosogulla - The slightly golden chenna dumplings combined with semolina are shaped in balls and cooked in light sugar syrup.




West Zone:

- **Puran poli:** It is prepared by preparing a soft dough with flour, turmeric powder, salt and ghee. The dough is filled with a mixture of cooked dal, jaggery and ghee and cooked on a griddle.
- **Shrikhand:** A traditional sweet from [Maharashtra](#), it is prepared from hung curd, often called as [chakka](#) in [Marathi](#). It is usually flavoured with saffron, nutmeg, cardamom, almonds and pistachios.
- **Mohanthal:** It is made by roasting besan in ghee and adding sugar syrup. It may be flavoured with rose water, cardamom, saffron, slivers of nuts etc.
- **Bibinca:** A traditional baked pudding from Goa made from coconut milk, ghee, egg yolk, sugar and flour. It traditionally has seven layers.
- **Dodol:** It is made by cooking [coconut milk](#), palm [jaggery](#), and [rice flour](#) cooked and set into a mould. It is sticky, thick, and sweet.
- **Ukadiche Modak:** This form of modak is prepared during Ganesh utsav in Maharashtra. A rice flour dough is prepared by cooking rice flour in water. The dough is rolled, filled with the mixture of coconut and jaggery, shaped and steamed in a steamer.



South Zone:

- **Ada:** It looks like small packets made with rice flour dough with a sweet filling and steamed in banana leaves.
- **Payasams:** Payasams are a variation of north zone kheer. However, many variations of payasam are prepared using jaggery and coconut milk as compared to sugar and dairy milk in the north zone.
- ✓ **Pal payasam:** A form of rice kheer of north zone.

- ✓ Paruppu payasam: It is made by roasting and cooking moong dal and cooking it with ghee, jaggery and coconut milk. It may be garnished with fried nuts.
- Coconut Barfi: The barfi is made from fresh grated coconut, ghee and set with sugar syrup.
- Mysore pak: A variation of besan barfi of the north and mohanthal of the west.
- Ande ki piyosi: A baked sweet made with eggs, sugar, milk, ground almonds, ghee, saffron etc.
- Khubani ka meetha: Apricots are boiled in syrup to prepare a compote like consistency. The preparation is topped with malai (more contemporary trends include custard or icecream) and garnished with almonds or apricot kernels.
- Double ka meetha: It is a bread pudding Indian sweet of fried & crumbed bread slices soaked in reduced hot milk with spices, including saffron and cardamom. It is popular in Hyderabadi cuisine, served at weddings and parties.
- Badam ki Jali: Almonds are first ground into flour and made into a dough with sugar, and then rolled into a large roti-like shape. Moulds are then used to give a variety of shapes. These are baked for some time to give it the crisp texture. 
- Ashrafi: The soft Ashrafi is also prepared like badam ki jali but is not baked. Instead the dough is pressed in a mould with traditional Nizami inscription to look like a coin.

-----Exercise-----

Q.1. Discuss the importance on sweets in Indian culture.

Q.2. Write short notes on:

a) Bengali sweets

b) Use of milk / milk products in preparation of Indian sweets

Q.3. Describe the various stages of sugar cookery and their use in preparing Indian sweets.

Q.4. Name two Indian sweets prepared by using following as main ingredients:

- a) Moong dal
- b) Besan
- c) Chenna
- d) Khoya
- e) Curd
- f) Refined flour
- g) Eggs
- h) Rice flour

Practical:

4. Prepare any two sweets from each zone of India.

Note: The sweet preparation may be repeated for practical proficiency.

UNIT 5

PRESENTATION OF INDIAN MEALS

Objectives:

- To describe the importance of Balanced Diet and ways it can be accomplished in Indian meals.
- To list accompaniments of Indian meals
- To compare and contrast traditional and contemporary presentation of Indian meals.

Balanced diet:

A balanced diet includes a variety of foods in adequate amounts and correct proportions to meet the daily requirements of all essential nutrients including carbohydrates, fats, proteins, vitamins, minerals and fibre. It is important to have sufficient water as well. Balanced diet helps to keep good health.

One must realize that requirement of nutrients vary from person to person. This depends on many factors such as age, sex, body weight, height, physical activity etc.

Nutrition is a specialised field that provides a knowledge of achieving the most suitable nutrition from meals as required by one's body. However, today our everyday food habits have become skewed towards foods that have more quantity of fat and carbohydrates than our body uses. This accumulation of excess fats and carbohydrates coupled with lack of exercise leads to various diseases. Hence, it is important to obtain all variety of nutrients in our daily diet.

Few good habits are:

- Including serving of salads & raw vegetables with a lemon based dressing.
- Including serving of seasonal vegetable dish accompanied with pulses (*daal*). We must eat a variety of vegetables and pulses not just few liked ones.
- Including products such as curd and buttermilk.
- Using whole grain flour instead of refined flour. It is also a good habit to use other types of flours apart from wheat such as bajra, makki, gram flour etc in various dishes.
- Use of limited quantities of oils and consuming variety of oils.
- Avoiding saturated fat.

Coupled with above if we exercise each day, we can avoid a lot of modern lifestyle diseases.

Accompaniments of Indian meals: A complete Indian meal comprises of pulses, cereals, vegetables, curd / buttermilk and lots of accompaniments. As the name suggests, these are preparations that are served in small quantities and add to the overall colour, texture, taste and nutritive value.

1. Pickles & It is an age old tradition to prepare pickles using seasonal best quality vegetables and preserve them using salt, spices and oils.
2. Preserves & This includes Jams, Jellies and Marmalades. Jams are prepared using fruits that are preserved using sugar. Marmalades too are prepared from fruits but include the peels of fruits while jellies are prepared from fruit juices.

3. Chutneys ó An accompaniment to many Indian snacks too, there are a wide variety of chutneys that are prepared. These include ó
 - Mint Coriander chutney
 - Tomato chutney
 - Peanut chutney
 - Coconut chutney
 - Saunth (tamarind) chutney
4. Crisps ó In India, variety of crisps are prepared all over the country. These include potato chips, *sabudaana* chips, vegetables cut into thin slices and deep fried, popaddums / papads/ khakras made of grinded dals and spies and sundried.
5. Drinks - Many traditional Indian drinks are used to accompany meals, or to simply quench the thirst. These include:
 - *Chaach / Buttermilk*
 - *Lassi*
 - *Solkadhi*
 - *Aam panna*
 - *Shikanji*
 - Coconut water
 - *Sherbets*

Hence, our meals must consist of a balanced amalgam of above accompaniments along with the main meal not only for flavour but also for completing a balanced nutritional intake.

Importance of food presentation:

It is important to cook food well, taking care of aspects such as temperature, colour, texture, taste etc. However, if not presented attractively, the effort does not yield appreciation. Such a product may yield low commercial benefits i.e. may not find a proper sale in a restaurant. Hence, one must consider food presentation while finalising a menu for a restaurant.

Traditional presentation of Indian meals:

Traditionally, Indian meals are served using a combination of *Thalis* and *Katoris* (bowls). These could be made of earthenware, stainless steel, brass, copper or even silver plated. The *Thalis* preferably should have rounded edges to hold the food. *Katoris* are kept for serving gravy dishes or the ones with thin consistency. The entire meal is served as one i.e. the thali will carry main dish, accompaniments, rice, breads, sweets and drinks alongside in one go.

In many cultures, food is served on banana leaves which is considered auspicious. Most individual dishes are garnished with simple things such as chopped nuts, chopped herbs such as coriander leaves, curry leaves or mint leaves, lemon slices etc



Food served on banana leaf.



Food served on earthenware lined with a banana leaf.



Presentation of Indian meal on a *thali & katoris*

Contemporary trends in presentation of Indian meals:

Though in most households, the traditional presentation is practiced, with the expansion of tourism, many hotels have Indian restaurants that cater to clientele from all over the world. The chefs have started experimenting with the presentation of many Indian dishes which includes not changing the basic recipe but merely plating the food in a way to make it look more eye-appealing. Also, there is an effort in pre-plating the food as compared to the dishes presented in serving bowls and serving using serving spoons. Individual dishes or dishes with few accompaniments are plated rather than providing the entire meal i.e. starters, crisps, soup, main course and sweet at the same time. Some modern presentations are as follows:

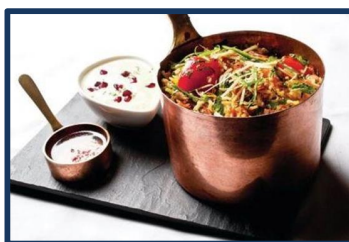


Considerations for plating the food:

- Prepare a framework in mind and put it on paper. This helps to prepare the broad framework for easing out plate presentation. The creativity and precise work both are required to prepare the framework. Decide on one element that can be used to give visual height to overall food on the plate. Consider main dish and its portion size. To plate attractively, one needs to consider the portion size of the dish or accompaniments that are to be kept on plate. Too much or too little food is avoided.
- Decide on accompaniments to play with colours, textures and visual appeal. This could include:
 - Sauces or chutneys
 - Crisps in various shapes
 - Micro-greens: These are young vegetable greens that are approximately 1 to 3 inches in length. They have an aromatic flavour and concentrated nutrient content and come in a variety of colors and textures. E.g. Arugula, mustard, red amaranth, chia, wheat, peas, radish, sunflower etc



- Fresh herbs ó Small tender leaves of mint or coriander are commonly used in Indian cuisine. Apart from this spring onion greens, chives, soya greens may also be used.
- Fancy cuts of vegetables.
- Edible flowers.
- Candied fruit peels or vegetables.
- Customised shape / colour / pattern of crockery.
- Garnish ó Use in small quantity, should be edible, must blend with flavour of the dish and provide a contrast of colour.
- Avoid clutter ó Leave some area of plate vacant especially for pre-plated food.



Activity:

Explore some hotels or restaurant in your city and neighbouring areas. Find out how they plate the dishes they offer, what are the accompaniments and garnish and how the entire presentation makes the food look eye appealing.

Summary:

Balanced diet is important to maintain a healthy lifestyle. Though the dietary requirement of nutrients varies from person to person depending on various factors such as sex, age, occupation etc, we must switch to some healthy eating habits. Indian meal with all its variety and accompaniments can be relished and also used as a complete source of nutrition. Traditionally, Indian meals are served in a *thali* with *katoris* for thin consistency dishes or even on earthenware and banana leaves. However, with globalization, many chefs are now moving towards presentation on Indian meals in a contemporary way using various ingredients, special crockery and reshaping the traditional dishes without altering the flavour.

-----Exercise-----

- Q.1. Define Balanced diet. Discuss the ways to achieve a healthy diet pattern.
- Q.2. List and explain accompaniments to Indian meals.
- Q.3. What are various considerations to achieve attractive food presentation?

Q.4. Answer in brief:

- a) Microgreens
- b) Preserves
- c) Accompaniments

Practical:

Prepare Indian regional meal, snacks or sweets as discussed in previous chapters and present the same dishes in different ways. Compare in terms of:

- Use of crockery
- Quantity and consistency of dish served
- Garnish
- Accompaniments used in plate for giving contrast of colour, texture and flavour.
- Vacant space left on the plate.

UNIT - 6

FAST FOOD

OBJECTIVES:

At the end of this unit, the student will be able to

- To outline the history of fast foods
- To identify the salient features of these outlets
- To state the flow of work
- To describe the use of convenience food
- To explain the preparation of fast foods

I. INTRODUCTION

“Fast food is not so much a system as a way of life.”

ó Peter Bertram



Fast food refers to those types of foods that are easily prepared in mass quantities and are served quickly. The focus is on the speed of service and affordable prices of the menu items.

It meets the need of “grab and go” service especially for leisure, industrial & traveling market requirements.

Fast food outlets are *take-away* or *take-out* providers that promise quick service. They offer both “drive ó through” services as well as dine in services. Now a days, customers can order food online via smart phone applications and get their food home delivered.

Fast food has been designed to be eaten “on the go” and does not require cutlery. It is eaten as finger food. Common food items served at fast food outlets include sandwiches, hamburgers, fried chicken, french fries, onion rings, chicken nuggets, tacos, pizza, hot dogs, ice cream, idli, dosa, samosa and other Indian snacks.

The basic concept of fast food outlets depends upon the following factors:

- Cheap food
- Products that can be cooked quickly and held in the short-term without deteriorating.
- Large throughput of customers
- Demand for takeaways as well as consumption on premises.
- Precise portion control.

Consumer perception of fast food:

- Quality - High quality food that would stand as a substantial meal.
- Service ó The essence of this particular style of fast food is speed that is why it is called fast food.
- Cleanliness ó The promotion of fast food is mainly done by the bright, attractive and clean image that the stores present.
- Value ó Customers are becoming price conscious and are looking for their money's worth these days. As such, the prices must match the quality.

The ethnic kiosks in India vary from state to state across India. The vada pav vendors in Mumbai are just as famous as the chole batura vendors in Delhi. Even though the menu items are not limited to particular places these days, however the tastes are not standardized in Indian fast food kiosks.

II. HISTORY OF FAST FOOD

The first of fast food restaurants started in the US and it continues to be home to many of the world's fast food chains. However, the roots can be traced back to ancient Rome, where they had commercial establishments termed "Thermopolium". These establishments sold ready to eat foods. The fast food restaurants began to open around the mid ó 1900s in the US, starting with the White Castle in Wichita, Kansas.

In India as well, the concept of fast foods has been prevalent since the time when "Dhabas" and "Udipi" started to come up all over the country. Among the famous fast food outlets are the *Chatwallas* of Delhi, *Bhelpuriwallas* of Mumbai, *Nizams* of Calcutta and the *Dosawallas* of the South.

Modern commercial fast food is highly processed and prepared on a large scale from bulk ingredients using standard procedures and equipment. It is usually served in cartons, paper bags

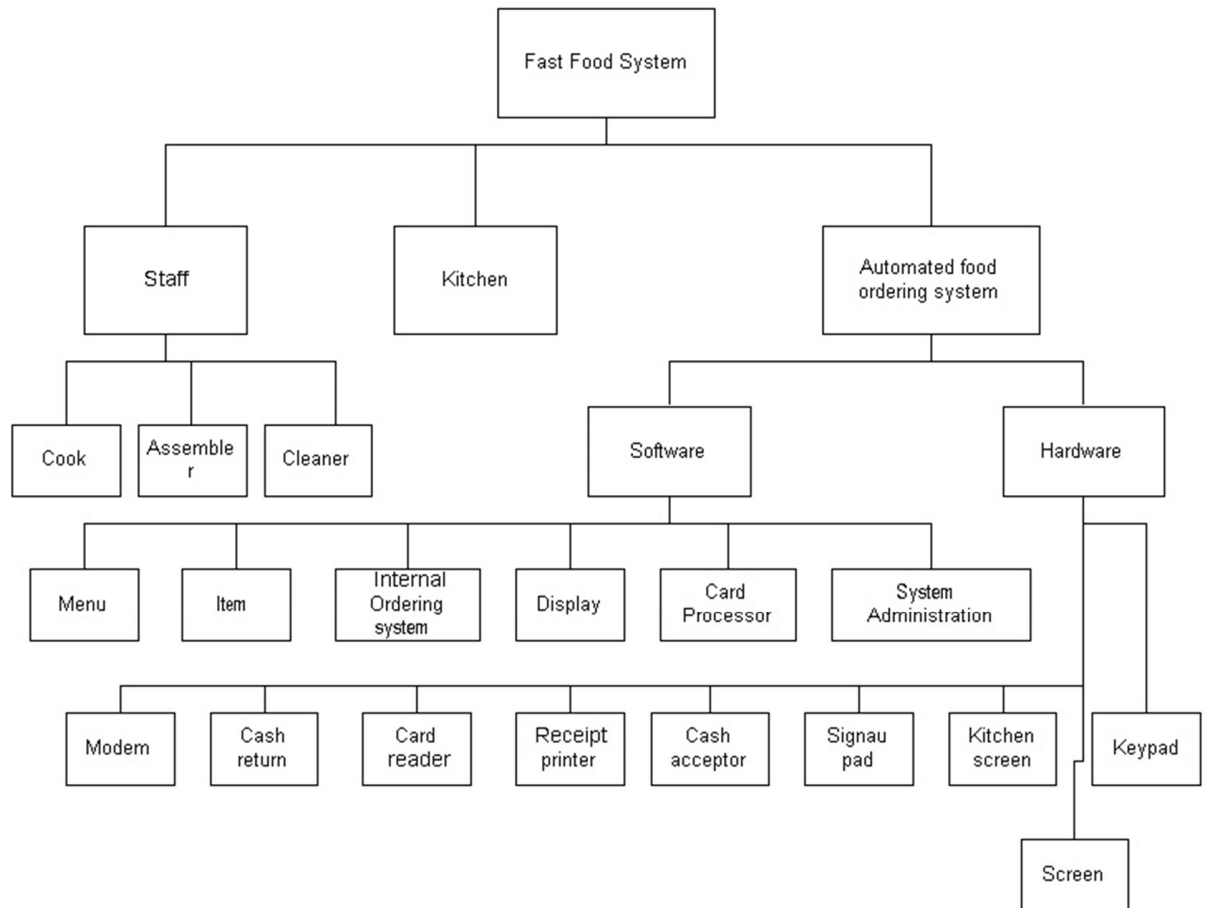
or in plastic wrapping, which enables quick product identification and counting, promotes longer holding time and helps avoid transfer of bacteria.

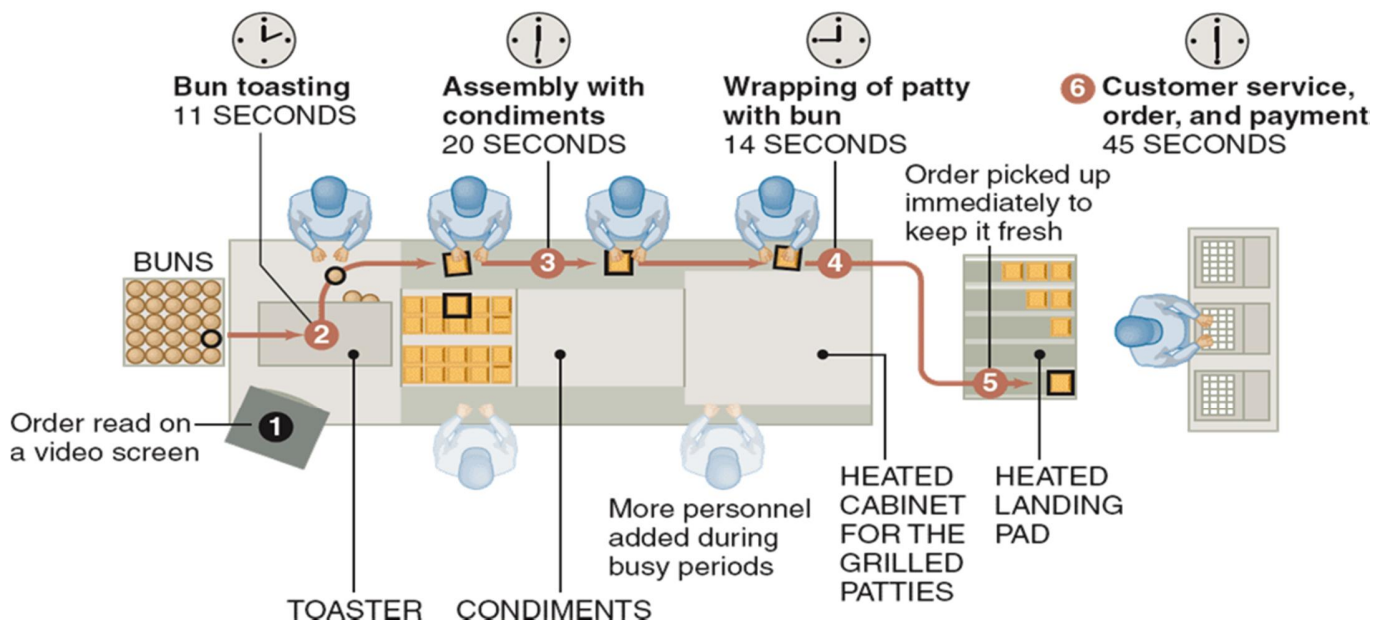


III. SALIENT FEATURES OF FAST FOOD

- It specializes in one particular product. Example- Burgers, pizzas and so on.
- Variations in the menu are based on one product. Example ó Aloo tikka burger, tuna burger, etc.
- Products can be prepared quickly and be held for a short while without spoilage.
- It relies heavily on the availability of convenience products. To prepare pizzas, pizza base is required, to make burgers, burger buns are required and to serve pani puris, the puris are needed.
- Ensures good portion control as convenience products form the base and the presentation is clearly displayed over the counter for the customers to know.
- It concentrates on pricing the items moderately and selling them in volume so as to gain more profit. Lower the selling price, higher the sale and vice versa. It caters to all the segments of the market.
- The outlet units are equipped with high efficiency automatic kitchen equipment, which does not call for the continuous attention of the cook. Thus, the cook can simultaneously concentrate on some other work.

IV. FLOW OF WORK





Fast food outlets usually serve customers food that has been pre-prepared or pre-cooked. These processed ingredients are prepared at a central unit which are then supplied to individual outlets. The processed ingredients are then cooked either by grilling, microwave or deep ó frying or are assembled immediately when the items are ordered or when the orders are anticipated.

Standard Operating Procedures are followed while using pre-cooked products so as to ensure that they are safe for consumption. The products are disposed of if the holding time is excessive. Following SOPs certifies that a consistent level of product quality is maintained and guarantees quick delivery of the order and reduces the labour and equipment costs in the outlets.

V. USE OF CONVENIENCE FOODS

Convenience products are processed foods, either they are ready to eat or they require minimum degree of cooking.

Convenience food or packaged food is a gift for those who are bustling to make the work needs and personal life needs meet. As such, eating out has become a part of one's life routine. For the chefs in the restaurant chains as well, packaged foods are a boon when they have to maintain the standards and consistency of the food they prepare. It is also a quicker option when they are pressed for time, which is always.

According to Mr. Sudhir Pai, Executive Chef, Holiday Inn Mumbai International Airport, "Any raw material that is in any way processed to remove one or more steps needed to produce the final dish is convenience food."

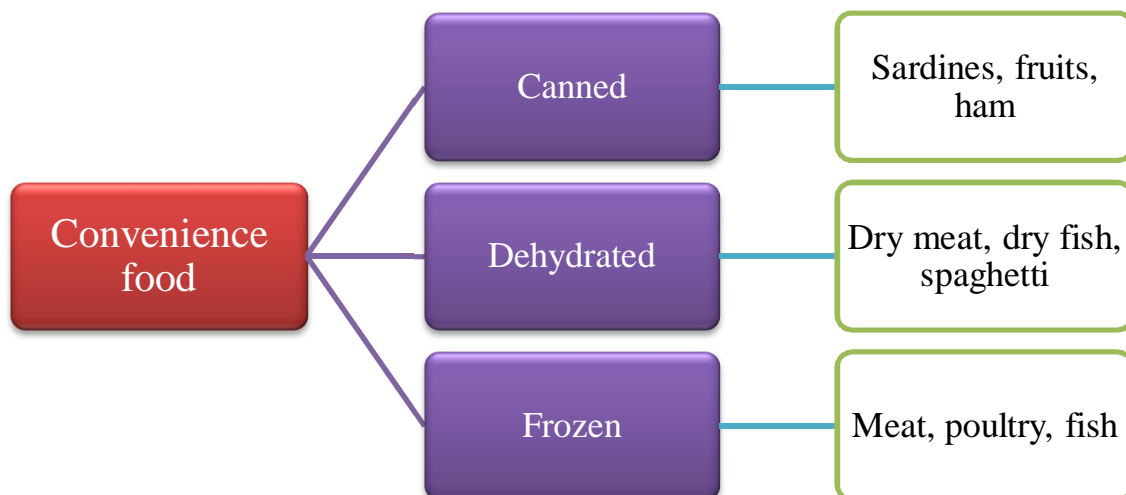
Convenience foods reduce the amount of time spent on preparing food at home. They can be consumed immediately or after adding water, heating or thawing.

Examples: Canned soup, Frozen foods, Cake mixes, etc.

Advantages	Disadvantages
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Reduces meal preparation time	Cooking time is sometimes increased for thawing or baking
No need to plan, buy and store ingredients separately	Lack of freshness in vegetables and fruits
Less wastage	Typically high in calories, fats, saturated fats, trans fats, sugar and salt.
Cost efficient for mass production and preparation	Cost per serving may be higher than homemade
Faster presentation and easier clean up	Harder to control fat, salt and sugar levels.

Convenience food can be categorised into three types:



VI. PREPARATION OF FAST FOODS

1. SUB

A sub, short for submarine sandwich, is a very popular and easy to make meal. It is a type of sandwich that consists of a length of bread or roll split crosswise and filled with a variety of meats,



cheese, vegetables and condiments. Subway is the chain that is famous for these subs.

Preparation

- The sub roll or roll of bread is cut in half, down the middle.
- Cheese is added to it and the bread is toasted.
- Any condiment as per choice is spread onto the bread
- The sub is filled with meat (if it is a non ó vegetarian sub) and vegetables.
- Seasonings are added to the sub as per taste.

2. Burgers

A burger is a sandwich consisting of one or more cooked patties of ground meat placed inside a sliced bread roll/bun. They are often served with cheese, lettuce, tomato, onion, pickles and condiments.



Preparation

For the patties:

- Get the meat grinded by the butcher, once through the coarse plate of the grinder and then through the fine plate of the grinder.
- Roughly chopped onions and garlic are then added to the ground meat.
- Flavouring ingredients such as sauces, herbs and spices are added to the meat and mixed properly.
- Egg yolk, salt and pepper are added with the prepared meat mixture.
- The mixture is then shaped into flat burger shapes of half an inch thickness. These are then chilled for approximately 30 minutes as cold and firm meat tends to cook easily.
- Once they are cold and firm, they can be grilled, fried in a skillet or pan, barbecued or baked.

For the burger:

- The toppings are prepared while the patties are being cooked.
- The toppings usually consist of lettuce, onions, tomatoes and cheese.
- Once the patties are cooked, the burger has to be assembled onto the burger bun and served.

- French fries, mashed potato or salads are the usual accompaniments for burgers.

3. Pizzas

It is a savoury dish of Italian origin, consisting of a usually round, flattened base of leavened wheat based dough topped with tomatoes, cheese, and various other ingredients baked at a high temperature, traditionally in a wood fired oven.



Preparation

For the pizza base:

- In a bowl, yeast, salt, sugar and water are mixed properly till the yeast dissolves and it is let to sit till the mixture starts to foam.
- A dough is made by mixing this water mixture with flour. It is knead till the dough feels firm and cohesive. The dough is placed in an oiled bowl and allowed to rise.
- Once the dough has risen, it is divided into balls of the required size.

For the pizza sauce:

- Tomatoes are crushed in a bowl and kept aside.
- Oil is heated in a saucepan and onion and garlic are sautéed.
- The crushed tomato paste is then added to the saucepan along with oregano, basil, sugar, salt and pepper.
- The mixture is cooked on medium flame until it starts to boil. It is then allowed to simmer for 30 minutes.
- Once the sauce is prepared, it is let to cool and blended if it seems too chunky.

Baking the pizza:

- The oven is pre-heated to 230 degrees Celsius for atleast 30 minutes.
- In the meanwhile the dough is flattened and shaped.
- Olive oil is brushed over the crust. Then the sauce and toppings are added to the base, while leaving half an inch of the outer crust edge uncovered.

- The pizza then is placed in the oven and baked for 10 ó 15 minutes. Once it is cooked, it is sliced and served.

4. Wraps

A wrap is a form of sandwich made with a soft flatbread rolled around a filling.

Preparation

For the tortillas:

- Prepare dough by mixing and flour, salt, baking powder, lard and water and kneading it.
- Divide the dough into the required number of pieces of equal size. Roll each piece into a ball.
- Pre ó heat a large skillet over medium flame. In the meanwhile, roll the balls into thin, round tortillas.
- Place a tortilla into the hot skillet and cook till bubbly golden. Flip and cook the other side as well. Do the same for the rest of the tortillas.



For the wrap:

- Prepare the filling by cutting and sautéing the vegetables and/ or meat.
- Place a large lettuce leaf at the centre of the tortilla.
- Place the fillings on top of the lettuce.
- Add nuts (almond, toasted or plain walnuts) and/ or seeds(sunflower, sesame seeds) to give a pleasant crunch
- Add cheese, dressings and condiments (mayonnaise, BBQ sauce, Mustard sauce, vinegar, oil)
- Add any seasonings (Salt, pepper, herbs ó dried or fresh)
- Tuck in all the fillings and wrap the tortilla
- Slice in half across the diagonal and serve.

5. Chinese Fast Foods

A) Dim Sums

It is a Cantonese delicacy which is relished world-wide.

Basically, a dim sum is a steamed bun filled with meat or vegetables.

Preparation

- Prepare dough from flour, water and salt. Mix well, knead it and cover with a damp cloth.
- Prepare the filling by cutting cabbages, spring onions, broccoli, carrots and French beans into small pieces.
- Put them in a bowl and add salt and pepper and mix well.
- Divide the dough into equal portions and roll them out into thin discs.
- Add the vegetable filling, fold and twist the edges to seal it.
- Place the dim sums in a lined bamboo steamer over hot water and let it steam for 8 ó 10 minutes on high flame.
- Serve the steamed dim sums with ginger soy sauce.



B) Chow mein

Chow mein are Chinese stir fried noodles and is particularly popular in India, Nepal, the UK and the US.

Preparation

- Cook Hakka noodles in boiling water. Drain, place the noodles in cold water, and drain again. Toss them in 1 tbsp sesame oil and set aside.
- Heat a wok over high flame. Add oil to it.
- Sautee garlic, add all other vegetables and stir fry them.
- Add noodles to the wok along with the soy sauce, spring onions, salt, pepper and castor sugar.



- Stir fry for a few minutes. Add sesame oil and toss.
- Serve hot.

C) Dragon Chicken

Dragon chicken is the name given to marinated chicken strips that have been fried and sautéed in a spicy and tangy sauce.

Preparation

- Marinate the chicken with dark soy sauce, red chilli paste, egg, all-purpose flour, corn starch, ginger garlic paste, pepper and salt to taste and let it sit for 15 minutes. Fry the chicken in hot oil till it turns golden.
- In a frying pan, heat oil. Add in dry red chillis and cashews and fry till golden brown.
- Add in onions and bell peppers and sauté. Then sauté ginger garlic paste in it.
- Add red chilli paste, soy sauce, tomato ketchup, salt, sugar and mix well.
- Cook till sauce thickens. Then add in fried chicken and toss into the sauce well. Add in chopped coriander and spring onions and mix well.



SUMMARY:

Fast food is rapidly rising to popularity. However, like other catering concepts, such as coffee bars in the 1950s, they are also predicted to decline in popularity and fade away. The industry is, simultaneously, looked upon as a cheap junk producing industry. These opinions are however disregarded by the fast food operators who insist that their sales are increasing and that they provide whole meals.

The most important concepts in the fast food industry are service, quality and cleanliness. For all its popular appeal, brashness and junk food image, fast food has brought bright and imaginative marketing, incredibly high standards of hygiene and a youthful outlook to catering.

REVIEW QUESTIONS:

Answer the following:

- 1) What is fast food?
- 2) Explain the flow of work at individual outlets.
- 3) Give the method of preparation for pizza.
- 4) Define convenience foods.
- 5) What are subs?

Essay Questions:

- 1) Explain the salient features of fast foods.
- 2) What are the advantages and disadvantages of fast foods?

UNIT-7

INTRODUCTION TO BAKING

OBJECTIVES

At the end of the unit the students will be able to: -

- To understand the functions of the basic ingredients used in bakery.
- To learn about cookies and their importance.
- To list different varieties of cookies and its preparation.

I. BASIC INGREDIENTS

FLOUR

Flour is the finely ground meal of wheat and is one of the most important ingredients used in bakery products. Therefore, flour quality has a major influence on the quality of the finished baked products. It is important for the following reasons:

1. It is the backbone and structure of baked goods.
2. It acts as a binding agent and an absorbing agent.
3. It affects the keeping quality of products.
4. It is important to the flavor of products.
5. It adds nutritional value to the baked product.



WHEAT

Wheat, from which flour is made, is the most essential grain used in bread-making because it is the only cereal that contains the proper combination of gluten in and gliadin. When flour is combined with water, they combine together to form gluten, essential for retaining the gas produced by yeast. No other grain can replace wheat in bread making.

The primary types of wheat flour used in baking are hard wheat and soft wheat.

Hard wheat contains a high proportion of gluten, which makes it an excellent choice for breads and bread products. There are several kinds of wheat:

1. Strong flour is preferred in the production of quality hard rolls and breads. Here it produces the best results.
2. Soft wheat generally contains less gluten than hard wheat and is commonly used for making the more delicate baked goods like cakes, pastries and cookies.

EGGS

Eggs are important because they add color, improve the grain and texture of baked products, increase volume, give structure to the product, adds flavor, and have considerable nutritional value. Egg whites figure largely in some of the above points as they are responsible for increasing volume, improving the grain and texture, and giving structure to the product.



SALT

The important functions performed by salt in baked products are as follows:

1. It brings out the desired flavor.
2. It controls yeast action. Increasing the salt content slows the yeast action but assists in preventing the development of bacteria and the wild types of yeast which are harmful to the dough.
3. It has a strengthening affect on the gluten in flour. It also helps the dough hold carbon dioxide gas more effectively.
4. It improves the texture and grain of baked products.

MILK

The milk solids have a binding effect on the flour proteins, creating a toughening effect. They also contain lactose which helps to regulate crust color. They improve the flavor and are important moisture retaining agents. It contributes towards eating qualities.

The advantages of using milk solids:-

1. Increases Absorption and Dough Strengthening
2. Increases Mixing Tolerance
3. Enhances the longer fermentation
4. Improves better crust color
5. Improves better grain and texture
6. Increases Loaf Volume
7. Improves keeping Quality
8. Provides Nutrition



SUGAR

Although flour contains natural sugar, the quantity of natural sugar is not sufficient to carry out the whole process of fermentation. Basically, sugar is used to provide food for yeast but it also improves moisture retention capacity of bread. It has softening effect on crumb and improves the crust colour and flavour of bread. In plain white bread, sugar is used at the rate of 2 to 3 % based on flour. However higher quantities can also be used as in the case of sweet fermented products. Higher concentration of sugar will retard the yeast activity and hence yeast content should be increased in the formula. Dough with higher sugar and yeast content should be guarded against over fermentation to avoid any acidity in taste and flavour.

YEAST

Yeast is a microscopic plant or cell grown in vats containing a warm mash of ground corn, barley malt, and water. The two types of yeast are compressed yeast and dry yeast.

The ideal storing temperature for yeast is 30^o-45^oF

When yeast is mixed with flour into dough, the yeast plants begin to grow and multiply very fast. This growth produces the leavening gas, or carbon dioxide, which forms the small bubbles that cause the dough to rise.

Yeast in baked products increases the volume and improves the grain, the texture, and the flavor.

FATS AND SHORTENINGS

Fats used for baking purposes are all edible fats or hydrogenated oils of vegetable or animal origin such as hydrogenated shortening, lard oils, butter, and margarine. Margarine and butter are two special types of fat. Margarine is made from animal or vegetable oils or a combination of both.

Whereas other types of fats are usually bland, butter and margarine are used primarily for their characteristic flavors which they impart to the products in which they are used. The physical properties of the fats of which they are composed are also somewhat different. This makes them melt in the mouth, and this characteristic is imparted to the products in which they are used, particularly in icings, thus improving the quality.

Lard, the rendered fat of hogs, is used primarily in bread and pie dough.

Oils are liquid fats used, within limits, for deep fat frying in bakeries, and also as a wash for different types of rolls, and for greasing purpose.

1. Consistency of plasticity. To permit shortening to function properly, it must be thoroughly and uniformly distributed in the dough or batter. It should be of a consistency which will mix easily into the dough or batter. It should also be easy to handle in the bake shop-not too hard or brittle in cold weather, nor too soft in warm weather.
2. Flavor, color, and odor are very important. With the exception of butter, lard, and margarine, most high grade shortenings are bland in flavor and light in color. All shortenings should be free from foreign odor.
3. Keeping quality of shortenings must be satisfactory under the storage conditions available in the bakery. The very best shortenings can be spoiled by rancidity when stored improperly or for too long. Shortenings must be kept in a cool place and tightly covered to keep out as much air as possible.

Functions of Fats in Bakery Products

Fats function in several ways in bakery products:

1. They increase the tenderness of the product.
2. They increase the quality of the product, both for keeping and eating.
3. They enhance the food value of the product.
4. They improve the grain and texture.

II. COOKIES

Cookies are most commonly baked until crisp or just long enough that they remain soft, but some kinds of cookies are not baked at all. Cookies are made in a wide variety of styles, using a range of ingredients including sugars, spices, chocolate, butter, peanut butter, nuts or dried fruits. The softness of the cookie may depend on the time taken to bake it.

The Word cookie means "small cake," and that covers a huge range of sweet, bite sized baked goods ó from crisp wafers, crumby meringues and macaroons, and light as air madelines, to buttery shortbread, chewy chocolate chip super cookies, and rich goey bars and brownies. Cookies can be shaped, flavored and decorated in so many different ways has given rise to a large number of names for them, including some quite colorful ones such as cat tongues, Russian cigarettes and gingerbread people.

The origins of cookie making are lost in the mists of time. The ancient Romans made cookie like products by boiling wheat, flour and water to a thick paste then frying it in oil and serving with lashings of honey. Cookie making probably began in earnest with the widespread cultivation and processing of sugar.

Earliest cookies were made in Ancient Persia in the 7th century AD by the time of middle ages; Italian merchants were dealing in biscotti. This is the word which gave rise to the British term for the cookie òbiscuitò

Most cookie formulas, however, call for less liquid than cake formulas do. Cookie dough range from soft to very stiff, unlike the thinner batters for cakes. This difference in moisture content means some differences in mixing methods, although the basic procedures are much like those for cakes.

Cookies Characteristic:-

Cookies come in an infinite variety of shapes, sizes, flavors, and textures. For example, we want some cookies to be crisp; others to be soft. We want some to hold their shape, others to spread during baking.

In order to produce the characteristics we want and to correct faults, it is useful to know what causes these basic traits.

Crispness:-

Cookies are crisp if they are low in moisture. The following factors contribute to crispness:

1. Low proportion of liquid in the mix. Most crisp cookies are made from stiff dough.
2. High sugar and fat content. A large proportion of these ingredients make it possible to mix workable dough with low moisture content.
3. Baking long enough to evaporate most of the moisture.
4. Small size or thin shape, so the cookie dries faster during baking.
5. Proper storage. Crisp cookies can become soft if they absorb moisture.

Softness:-

Softness is the opposite of crispness, so it has the opposite causes, as follows:

1. High proportion of liquid in the mix.
2. Low sugar and fat.
3. Honey, molasses, or corn syrup included in the formulas. These sugars are hygroscopic, which means they readily absorb moisture from the air or from their surroundings.
4. Under baking.
5. Large size or thick shape, so they retain more moisture.
6. Proper storage. Soft cookies can become stale and dry if not tightly covered or wrapped.

Chewiness:-

Moisture is necessary for chewiness, but other factors are also important. In other words, all chewy cookies are soft, but not all soft cookies are chewy.

The following factors contribute to chewiness:

1. High sugar and liquid content, but low fat content.
2. High proportion of eggs.
3. Strong flour or gluten developed during mixing.

Spread:-

Spread is desirable in some cookies ' while others must hold their shape. Several factors contribute to spread or the lack of it.

Procedure for Spread Method

1. High sugar content increases spread. Coarse granulated sugar increases spread, while fine Sugar or confectioners' sugar reduces spread.
2. High baking soda or baking ammonia content encourages spread.
3. The creaming together of fat and sugar contributes to leavening by incorporating air. Creaming a mixture until light increases spread. Blending fat and sugar just to a paste (without creaming in a lot of air) reduces spread.

4. Low oven temperature increases spread. High temperature decreases spread because the cookie sets up before it has a chance to spread too much.
5. A slack batter-that is, one with a high liquid content-spreads more than a stiff dough.
6. Strong flour or activation of gluten decreases spread.
7. Cookies spread more if baked on heavily greased pans.

III. PREPARATION OF VARITIES OF COOKIES

Basic Cookies

Ingredients	Quantity
Butter	225 g
Castor sugar	110 g
Plain flour	275 g
Ground spices	optional

Methods:

1. Preheat the oven to 170°C.
2. Cream the butter in a large bowl or in a food mixer until soft and creamy · Add the sugar and beat until the mixture is pale and fluffy.
3. Sift in the flour and spices or grated zest (if using) and bring the mixture together to form firm dough.
4. Using your hands, roll the dough into walnut-sized balls and place them slightly apart on a baking tray (no need to grease or line). Flatten them slightly with the back of a damp fork and bake in the oven for 13-15 minutes, or until they are light golden brown and slightly firm on top.
5. Carefully transfer the cookies to a wire rack to cool.



Butter Cookies

Cook Time: 20 minutes

Total Time: 20 minutes

Ingredients	Quantity
Butter	100g
Sugar	100 g
Vanilla extracts	5 g
Salt	1 g
Baking powder	5 g
Blanched almond halves	
Flour	200 g

Preparation:

1. Cream butter and sugar until light and fluffy
2. Add Vanilla.
3. Sift together flour, salt, and baking powder.
4. Stir dry ingredients into butter mixture; mixing until well blended.
5. Shape dough into small balls.
6. Place on ungreased cookies sheets; press an almond half into the top of each ball.
7. Bake butter cookies at 300 for 20m minutes, or until just lightly browned.
8. Makes 5 to 6 dozen butter cookies.

Cookies are soft made from various ingredients that can be relished as tiny bites.

No-Bake Cookies

Simple ingredients come together to make these cookies. They are simple to make but need to be chilled a longer time, to give the ingredients time to become firm. Many of these cookies are held together with melted chocolate. It can be melted in a saucepan with butter and water or in a double boiler if it is being melted alone.

- **Meringue Cookies**

The main ingredient in most of these cookies is beaten egg whites. These cookies can either be piped into fancy shapes or spooned onto a baking sheet.

- **Refrigerator Cookies**

These cookies need to be chilled before slicing and baking them. The creaming method is used to make the dough. This dough is very sticky once prepared but after much chilling, it is firm enough to slice and bake. Most of these cookies spread so make sure to leave room between each one on a baking sheet. The dough is formed into a cylinder and wrapped in plastic wrap, waxed paper, or parchment paper. Twist the ends so the log looks like one big wrapped taffy. Chill in the fridge for a couple of hours or freeze for a couple of months. The advantage to making these types of cookies is that you can keep it

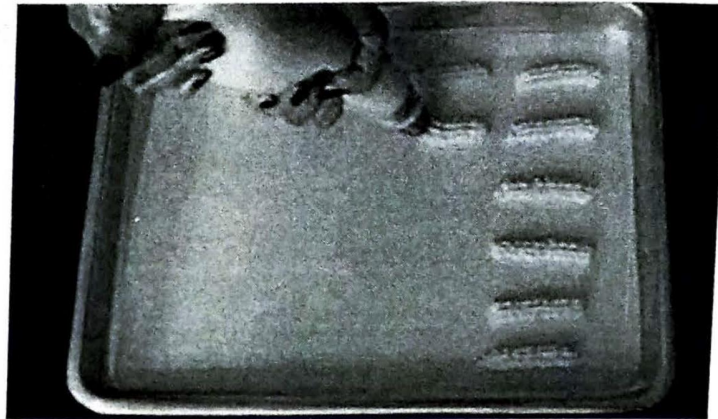
in the freezer until you are ready to bake them. You can bake as many as you want at any time. Just rewrap the unused portion of the log and refreeze.

Bagged:-

Bagged or pressed cookies are made from soft dough. The dough must be soft enough to be forced through a pastry bag but stiff enough to hold its shape.

Procedure for Bagged Method

- Fit a pastry bag with a tip of the desired size and shape. Fill the bag with the cookie dough.
- Press out cookies of the desired shape and size directly onto prepared cookie sheets.



Dropped:-

Like bagged cookies, dropped cookies are made from soft dough. *Actually*, this method can be considered the same as the bagged method, and many bakers use the term *drop* for both bagging out cookies and for depositing dough with a spoon or scoop. Usually, a pastry bag is faster, and it gives better control over the shape and size of the cookies.

Procedure for Dropped Method

- Select the proper size scoop for accurate portioning.
- Drop the cookies onto the prepared baking sheets. Allow enough space between cookies for spreading.
- Rich cookies spread by themselves, but if the formula requires it, flatten the mounds of batter slightly with a weight dipped in sugar.

Rolled:-

Cookies rolled and cut from stiff dough are not made as often in bakeshops and food service operations as they are made in homes because they require excessive labor. Also, there are always scraps left over after cutting. When rerolled, these scraps make inferior, tough cookies.

The advantage of this method is that it allows you to make cookies in a great variety of shapes for different occasions.

Procedure for Rolled Method

- Chill dough thoroughly.
- Roll out dough 1/8 inch.(3 mm) thick on a floured canvas. Use as little flour as possible for dusting because this flour can toughen the cookies.
- Cut out cookies with cookie cutters. Place cookies on prepared baking sheets. Cut as close together as possible to reduce the quantity of scraps. Roll scraps into fresh dough to minimize toughness.
- Baked cut-out cookies are often decorated with colored icing (royal icing, flat icing, or fondant) for holidays or special occasions.



Molded:-

The first part of this procedure (steps 1 and 2) is simply a fast and fairly accurate way of dividing the dough into equal portions. Each piece is then molded into the desired shape.

This usually consists of simply flattening the pieces with a weight. For some traditional cookies, special moulds are used to flatten the dough and, at the same time, stamp a design onto the cookie. The pieces may also be shaped by hand into crescents, fingers, or other shapes.

Procedure for Molded Method

- Refrigerate the dough if it is too soft to handle. Roll it out into long cylinders about 1 inch. (2 1/2 cm) thick, or whatever size is required.
- With a knife or bench scraper, cut the roll into 1/2 oz. (15 g) pieces, or whatever size is required.
- Place the pieces on prepared baking sheets, leaving 2 in. (5 cm) space between each.
- Flatten the cookies with a weight, such as a can, dipped in granulated sugar before pressing each cookie. A fork is sometimes used for flattening the dough, as for peanut butter cookies.
- Alternative method: After step 2, shape the dough by hand into desired shapes.

Icebox:-

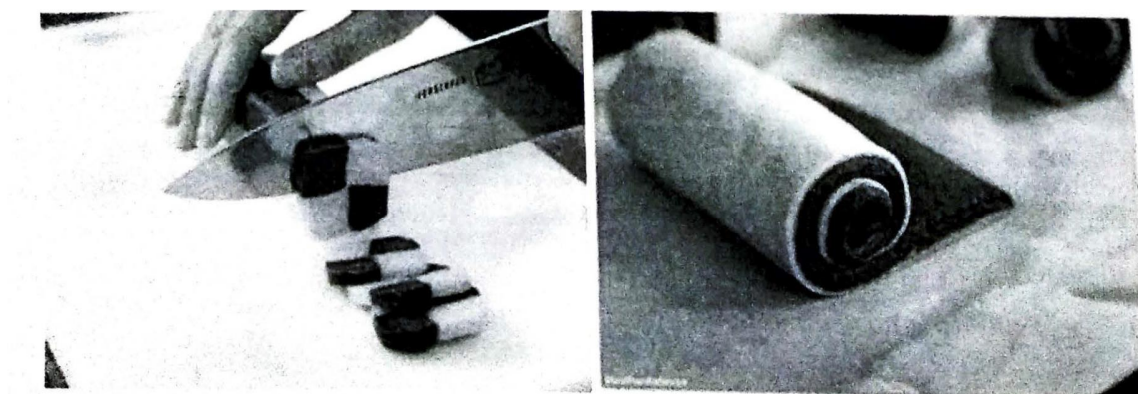
The icebox or refrigerator method is ideal for operations that wish to have freshly baked cookies on hand at all times. The rolls of dough may be made up in advance and stored.

Cookies can easily be cut and baked as needed.

This method is also used to make multi-colored cookies in various designs, such as checkerboard and pinwheel cookies.

Procedure for Icebox Method

- Scale the dough into pieces of uniform size, from 1 1/2 lb. (700 g), if you are making small cookies, to 3 lb. (1400 g) for large cookies.
- Form the dough into cylinders 1-2 in. (2 1/2-5 cm) in diameter, depending on the cookie size desired.
- For accurate portioning, it is important to make all the cylinders of dough the same thickness and length.
- Wrap the cylinders in parchment or wax paper, place them on sheet pans, and refrigerate overnight.
- Unwrap the dough and cut into slices of uniform thickness. The exact thickness required depends on the size of the cookie and how much the dough spreads during baking. The usual range is 1/8-1/4 in. (3-6 mm).
- A slicing machine is recommended for ensuring even thickness. Dough containing nuts or fruits, however, should be sliced by hand with a knife.
- Place the slices on prepared baking sheets, allowing 2 in. (5 cm) between cookies.



Bar:-

This procedure is called the *bar method* because the dough is baked in long, narrow strips and later cut crosswise into bars. It should not be confused with *sheet cookies* (see next procedure), which are sometimes called *bars* by home cooks.

Procedure for Bar Method

- Scale the dough into 1 3/4-lb (800 g) units. Units weighing 1 lb. (450 g) may be used for smaller cookies.

- Shape the pieces of dough into cylinders the length of the sheet pans. Place three strips on each greased pan, spacing them well apart.
- Flatten the dough with the fingers into strips about 3-4 in. (8-10 cm) wide and about 1/4 in. (6 mm) thick.
- If required, brush with egg washes.
- Bake as directed in the formula.
- After baking, while cookies are still warm, cut each strip into bars about 1 3/4 in. (4.5 cm) wide.
- In some cases, as with Italian-style *biscotti* (meaning "baked twice"), the strips are cut into thinner slices, placed on sheet pans, and baked a second time until dry and crisp.

Sheet:-

Sheet cookies vary so much that it is nearly impossible to give a single procedure for all of them. Some of them are almost like sheet cakes, only denser and richer; they may even be iced like sheet cakes. Others consist of two or three layers added and baked in separate stages. The following procedure is only a general guide.

Procedure for Sheet Method

- Spread cookie mixture into prepared sheet pans. Make sure the thickness is even.
- If required, add topping or brush with an egg wash.
- Bake as directed. Cool.
- Apply icing or topping, if desired.
- Cut into individual squares or rectangles.

Stencil:-

The stencil method is a specialized technique used with a particular type of soft dough or batter. This batter is often called *stencil paste*. It is used not only for making this type of cookie but also for making ribbon sponge cake for decorative work.

Procedure for Stencil Method

- Line a sheet pan with a silicone mat. If a mat is not available, use a sheet of parchment paper.
- Use a ready-made stencil, or make a stencil by cutting a hole of the desired pattern in a sheet of thick plastic or thin cardboard (the cardboard used for cake boxes is suitable).
- Place the stencil on the silicone mat or parchment. With an offset palette knife spread the batter across the stencil to make a thin layer that completely fills in the hole. '
- Lift off the stencil and repeat to make additional cookies.

I. Exercise:

- 1 Make a study of cookies prepared in the practical class about their characteristics with picture.
2. Prepare & submit the report to the Class teacher for assessment.

Review Questions:-

A. State whether True or False:-

1. High sugar and liquid content, but low fat content give chewiness in cookies.
2. Cookies are crisp if they are high in moisture content.

B. Questions:-

- I. List down various cookie textures?
2. What are the various factors that contribute to the crispness of cookies?

II. Exercise:

1. Make a list of 10 cookies preparations with picture & find the type of mixing method used.
2. Prepare & submit the report to the Class teacher for assessment.

Review Questions:-**A. Fill in the Blanks**

1. Types of cookie mixing method are..... & ...
2. _____method of mixing in cookie preparation is similar to the egg-foam methods for cakes.

B. State whether True or False:-

1. In one stage mixing method of cookie mixing, the baker has less control over the mixing with this method than with other methods.
2. The amount of creaming in cookie mixing affects the texture of the cookie, the leavening, and the spread.

C. Questions:-

1. Write down the procedure for Creaming method for cookie preparation?
2. Describe the Sponge method of mixing cookie mixture?

III. Exercise:

1. Collect information of 2 each cookie varieties using above mentioned make up methods using internet with picture.
2. Prepare & submit the report to the class teacher for assessment.

Review Questions**A. Fill in the Blanks**

1. Making up method for cookie where the mixture is piped using a piping bag is _____
2. _____method of cookie make up is also known as refrigerator method.

B. State whether True or False:-

1. In bar method the dough is baked in long, narrow strips and later cut crosswise into bars.
2. A heavily greased pan decreases the spread of the cookie.

C. Questions:-

1. Give the procedure for dropping method of cookie making?
2. Write a short note on Baking procedure of cookies?

UNIT- 8

MENU PLANNING

OBJECTIVES:

By the end of this unit, the student will be able to

- 1) To identify the different types of menu
- 2) To outline the principles of menu planning
- 3) To plan the menus for various occasions

I.INTRODUCTION:

A menu is a list of dishes available to be served as a meal. Menu is an important management tool since every aspect of the food service operations depends on the menu purchasing, production; costing, kitchen layout and design are all based on the menu. Planning of menu depends on the taste and preferences of the customers as they are the main reason for our business. This should be given top priority and the kind of clientele the business serves influences the form the menu takes. Menu planning can be defined as the selection or framing of a menu for consumption on various occasions. It is the process of deciding what to eat for each meal including soup, appetiser, main course, side dishes and desserts.



It helps in knowing how many meals to plan for and the time period to serve them. Daily activities, scheduling variations, and various other factors affect the menu planning process.

II. TYPES OF MENU:

A La carte: A multiple choice menu in which each dish is separately priced.

Traditionally, the original menus that offered consumers choices were prepared on a small chalkboard, a la carte in French. So food items chosen from a bill of fare are described as a la carte, 'according to the board'. In an a la carte menu, all items are cooked to order including the sauces that are made from wine, cream or mustard. An extensive a la carte menu is impressive but involves a huge amount of mise-en-place.

Table d'ôte: This menu is fixed and does not offer any choices. It offers a selection of complete meals at set prices. It is the style of dividing a given number of courses with limited or no choice other than the provided set of dishes. The menu may feature 5 or 6 or even as many as 10 to 12 individual courses served in small portions.

Table d'ôte menus are still used in various forms such as buffet menus, conference packages and on special occasions. Table d'ôte menus should be well planned and balanced. As the guest is not given a chance to plan his own meal, the meal should be interesting, without any similarity in the colour and taste of the courses as well as being palatable, delicious and well presented.

If the main course is heavy, then the first course should be lighter and must act as an appetite stimulant for the courses to follow. Dishes that are heavy and hard to digest should be avoided. The colour, varieties of ingredients used and the garnishes should be different for each course.

S.NO	A LA CARTE	TABLE D'ÔTE
1.	It gives the full list of all the dishes that may be prepared by the establishment.	The menu has a fixed number of courses. There is a choice within each course.
2.	Each dish is priced individually.	The selling price of the menu is fixed.
3.	A certain waiting time (preparation time) has to be allowed for each dish.	The dishes provided will be ready at a set time.
4.	It is cooked to order.	The guest will be charged for the full menu whether he consumes all the items on the menu or not.

Starters:	
Bhajji	
Soups: Tarnato Rasam	
Main Course:	
For vegetarians	For Non-vegetarians
Dal Tadka	1. Chicken Masala
Aloo Gobi	2. Fish Curry
Bengan Bartha	3. Daal Tadka
Breads & Rices	
Chapati	
Butter Naan	
Steamed Basmati Rice	
Raita (Yoghurt) & Other Condiments:	
Cucumber Raita	
Mango (keri) or Imali ki chutney	
Mix achar	
Pappadom	
Veg Salad	
Dessert	
Fresh fruits or Gulabjamun	

Example of a Table d' hôte menu

Fixed and Cyclic menu: A fixed menu offers the same dishes every day and this is usually adopted in the restaurants and other establishments where the customers keep changing and the dishes in the menu offer different variety. Fixed menus are prevalent in transport catering which include air, rail and sea passengers. Cruise liners may have elaborate fixed menus with multiple choices built into each course.

Cyclic menu is the type of menu where the dishes are repeated periodically for each week/month. Generally all hostel menus, Railway catering, cafeterias are of this type.

M E N U				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
Cheerio's Banana Milk	Wheat Bogel Cantaloupe Milk	Wheat Pancakes Strawberries Milk	Eggs-N-Toast Sliced Grapes Milk	Oatmeal Sliced Pears Milk
Morning Snack	Morning Snack	Morning Snack	Morning Snack	Morning Snack
Cheez-N-Crackers 100% Juice and/or Bottled Water	Rice Krispy Treat 100% Juice and/or Bottled Water	Yogurt with Berries 100% Juice and/or Bottled Water	Trail Mix (from one a day) 100% Juice and/or Bottled Water	Animal Crackers 100% Juice and/or Bottled Water
Lunch	Lunch	Lunch	Lunch	Lunch
Chicken Stew Mixed Vegetables White Rice Milk	Tuna Sandwich Applesauce Carrot Sticks Milk	Macaroni & Cheese Chicken Nuggets Steamed Corn Milk	Grilled Cheese Steamed Broccoli Watermelon Milk	Spaghetti & Meatballs (from one a day) Applesauce Milk
Snack	Snack	Snack	Snack	Snack
Trail Mix (from one a day) Carrot Sticks 100% Juice and/or Bottled Water	Yogurt W/ Fresh Berries 100% Juice and/or Bottled Water	Cheez-N-Crackers Sliced Watermelon 100% Juice and/or Bottled Water	Rice Krispy Treat Sliced Pears 100% Juice and/or Bottled Water	Crackers Carrot Sticks 100% Juice and/or Bottled Water

Example of cyclic menu

Specialities and Plat du jour: Certain catering establishments carry a special item on their a la carte menu each day. This special item is called the **plat du jour** or **dish of the day**.

III. PRINCIPLES OF MENU PLANNING:

- Cold and warm dishes should be listed separately.
- Appetizers, soups, starters and main courses should be separate groups.
- In every group, the lighter dishes should be listed before the richer ones.
- Salads should be highlighted.
- Calorie content of the foods should be specially indicated, and the number of calories should be stated.
- If foods are prepared with organically grown ingredients, this fact should be highlighted to the discriminating customer.
- Seasonally available items should correspond to the season and should change periodically.
- The dessert section should be listed separately on a colourful card.
- The menu items should be numbered to avoid confusion.

While planning a menu the following points should be kept in mind:

Type:

- a) Assess the type of seal required
- b) Assess the type of kitchen and cooks required
- c) Assess the type of restaurant and its capacity

Supplies:

- a) Seasonal supplies
- b) Local availability of supplies

Balance:

- a) Light dishes to heavy dishes should be balanced
- b) Vary the seasoning, flavouring and presentation

Food value:

- a) Use such methods of cooking that will preserve the natural nutritive property in raw material

Language:

- a) Choose a language which can be clearly understood.
- b) Proper spellings of the dishes.

Meal time:

- a) The time when meal is served
- b) Breakfast should be more nutritive and energy giving.

IV.FACTORS TO BE CONSIDERED WHILE PLANNING A MENU:

The basic consideration for planning a menu depends on various factors such as varieties of meals, budget, time, culture etc.

a) Type and quantity of meals:

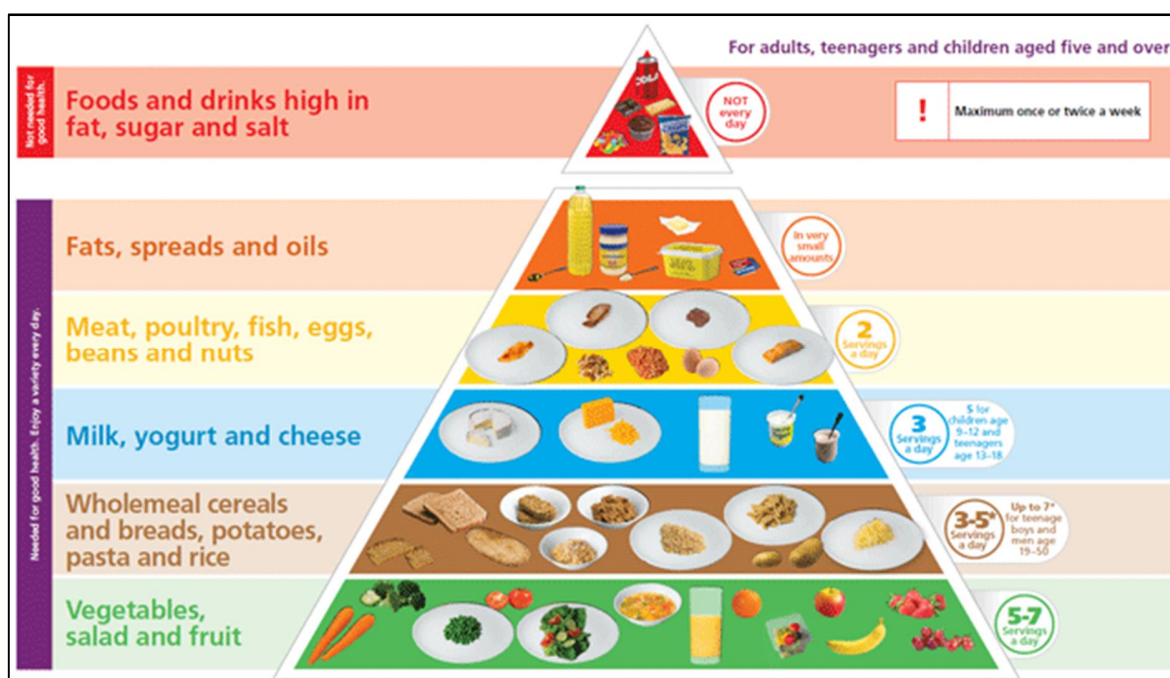
In order for a menu to be good, one should know which meals she is in charge of, for example, breakfast, lunch, or dinner. One needs to know how many of those meals need to be planned. The Timeframe is also considered which refers to how much time is available to make the meals.

b) Balanced diet

Principle of nutrition is an important factor to be considered for menu planning. For example, a family may have members of all age groups like an infant, adolescent, adult, pregnant

lady, old person, etc. Nutritional requirement of each member may differ. Hence it is requisite to consider the nutritional requirement of each member.

During menu planning, it is important to include some food items from each nutritional group. Foods which has only one nutrition are neither nutritionally balanced nor likeable, e.g., a meal having egg curry, curd rice, and sweet will be rich in protein but deficient in minerals and vitamins because of the missing of vegetables and fruits.



Food pyramid

c) Variety in meals planned

Nobody likes a rigid meal pattern every day. Variety is a must and this can be done by selecting different foods various food groups, variety in colour, flavour, taste, and texture into it, and by using cooking styles.

(i) Selection of foods from different Food Groups

A group of foodstuffs of the same nutrients are called a Food Group. If selected from a single food group are neither acceptable nor balanced. For example, a person has milk, cheese, sandwich, and milk pudding breakfast will give similar taste and nutrients but on the other hand

if foods from different groups are selected like a vegetable sandwich with juice will bring variety and also enhance the taste nutritive value of the meal.

(ii) Variety in colour combination

Blending of different colours makes food attractive, eye appealing and also enhances appetite. On the other side the food appears dull if all foods are of the same colour. For example, a meal having dal, curd, white rice, onion and radish salad does not appeal even though it is nutritious. But if a meal has whole Brown rice, carrot cucumber salad, fried dal, sweets, and curd rice it becomes more attractive because of beautiful colours.

(iii) Variety in texture

The Texture in food refers to its softness, crispness and the solid or liquid state of the food. A meal won't be nice if all the foods are either fried or boiled or full of juices and milkshakes. It should have the combination of all. So a meal should have some solid foods which can be consumed raw like salads, fruits, etc., some fried foods like chips, French fries and some soft like custard, cakes etc.

(iv) Variety in taste and flavour

A meal will tempt only if it has variety of flavour and aroma. All the tastes like salty, sour, sweet and bitter add value to food. One won't be able to enjoy the meal if all the foods in it are very spicy. A bland meal is also not preferred.

(v) Variety in methods of cooking

Texture, taste and flavour of foods is influenced by using different methods of cooking. Apart from the traditional cooking methods like frying, boiling, roasting, baking, steaming etc., novelty to the food can also be added by fermentation and sprouting. For example, a potato can be served in different forms like french fries, cutlets, baked potato, potato masala than being served as boiled potato.



A menu with varieties of colour, taste, and texture

d) Meals should provide satiable value

Foods that do not cause hunger between two meals are known as satiable food. Protein and fat rich foods have higher satiety value than compared to carbohydrates.

For example, the interval between dinner and breakfast is long. So the menu should be planned in such a way that protein rich breakfast will be more satiable.

e) Should save time, energy and money

Time, energy and money can be saved by using the following methods of menu planning:

Once the meals are planned for a day or week then we can prepare a list of items and they can be procured all at once on time. This saves unnecessary trips to the market and thus saves time, and money.

Foods can be purchased at reasonable prices when bought in advance. For this, market rate at different shops, provision stores can be known and compared with wholesale dealers in advance so that items to be purchased at the last moment in a hurry do not occur.

Ingredients in bulk quantities cost less but should be purchased only when there is proper provision for its storage.

Purchasing should be made at time periods when the markets are not very crowded.

ÉKitchen items should be arranged properly near the workplace so as avoid fatigue while working in the kitchen.

ÉTime and labour saving kitchen devices like mixer, fridge, and cooker, solar cook etc. should be used.

ÉMeal planning helps in pre-preparation and planning of food. For example, if rajma is to be cooked for lunch, then it can be soaked prior so that it is easy to cook, saves time and fuel.

V.MENU PLANNING FOR VARIOUS OCCASIONS:

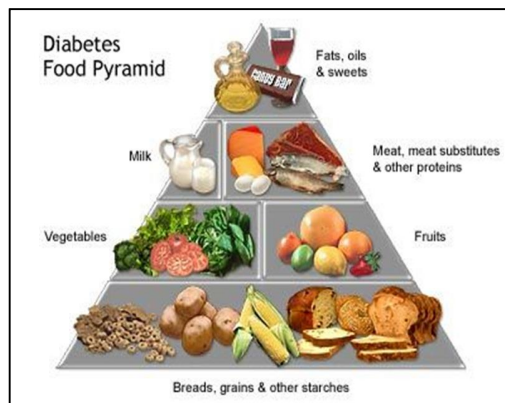
The guidelines to keep in mind while planning meals for various occasions should include the following factors to make the menu planning effective.

1. Nutritional Adequacy

This is the most important factor, which means that the nutritional requirements of all the members attending the function are fulfilled. For example, a growing child needs more protein, a pregnant or lactating woman needs calcium, and old people need more of easily digestible foods etc. While planning the menu one should include food items with various nutrients, that is, energy giving foods, body building foods and protective and regulating foods.

2. Age factor:

Diet requirement of various members of different age groups differs in quantity as well as in nutrition. A new born baby drinks only milk, a small child's meal is also of very small quantity, an adolescent eats more quantity and variety of foods. Similarly, an old man eats less food and also prefers soft and easy to digest foods. So the menu must be planned in such a way that all types of food items are included in the menu so that everyone can consume it.



Food pyramid for diabetes

3. Gender

Gender is another major factor which determines the dietary nutrition intake. Dietary requirement of males and females are not the same. Men need more of quantity for more calories whereas women need comparatively less calories than men.

4. Economic Considerations

Budget available to be spent on food is another major factor. Foods like milk, cheese, meat, fruits, nuts etc. are expensive. Alternative sources like toned milk, seasonal fruits and vegetables are cost effective and also nutritious. Thus the planned menu must suit the budget proposed.

5. Time, energy and skill considerations:

While planning a menu, one should consider the resources like time, energy and skill available to the family. A menu can be elaborate with different dishes but proper planning, organised work schedule; proper purchase of ingredients will save time and energy.

6. Seasonal availability

Some foods are available only in summer season and some in winters. The off season foods are expensive and low in quality and nutrition, and the seasonal fruits are fresh, nutritious, tasty and economical. Thus, while planning a menu seasonal fruits should be considered.



Seasonal fruits

7. Religion, region, cultural patterns and traditions:

Religion, region, cultural patterns and traditions are some of the major factors affecting menu and cooking styles. For example, a North Indian prefers to consume more of wheat, in the coastal region people will consume more of coconut, fish etc. and south Indians prefer more of rice. Thus the staple food of a region will affect a menu. Also families with Religious beliefs will have an influence in the menu. For example, if you are a vegetarian, your diet will not have any meat products.

8. Variety in colour and texture:

Examine the following two menus - which one is sounds better?

Menu - I	Menu - II
Chapatti	Chapatti
Rice	Rice
Plain dal	Dal makhni
Pumpkin Vegetable	Fried ladyfinger
Curd	Curd
Papad	Carrot raita Salad
Juice	Ice cream

The second one looks better, as it has variety in terms of colour, texture, flavour and method of preparation even though the numbers of the dishes are same in both the menu. Thus these factors help in making meals more appealing, attractive and hence more acceptable.

9. Likes and dislikes of individuals

The food you serve should be flexible with likes and dislikes of the individuals. It is often better to change the form of a nutritious dish, than omitting it. For example, if someone in your family does not like milk, it can be served in the form of cheese, paneer. In case of the occasion proper communication with the host should be done about the likes and dislikes of the guests attending the occasions.

Various occasions:

- A sample menu(lunch/dinner) for a formal occasion

SAMPLE MENU	
Non-Veg	
1 Welcome drink	
Soup	
1 Veg	
1 Non-Veg	
Starter	
2 Non-Veg	
Salad	
1 Veg	
1 Non-Veg	
Main Course	
1-Chicken / Fish curry	
1-Chicken Biryani	
2-Veg Curry	
1-Dal	
1-Rice	
2-Indian Breads	
Accompaniment	
Dessert	
2-Desserts	

- Sample menu for a wedding buffet

<i>Indian wedding menu</i>	
<i>Vegetarian</i>	<i>Non Vegetarian</i>
Salads & Soup	Salads & Soup
Garden Green Salad	Garden green salad
Pomegranate, Beetroot and Orange Salad	Aloo channa chaat
Hummus	Corn bean salad
Tabhouli	Hummus
Pickle, Raita, Papadum	Raita
Sliced Onion, Green Chili, lemon wedges	Pickles, papadum, sliced onion, green chili, lemon wedges
Minestrone Soup	Cream of cauliflower soup scented with coriander
<i>Breads</i>	<i>Breads</i>
Assorted Bread Basket	Assorted Bread Basket
Naan/Roti	Naan/Roti
<i>Snacks</i>	<i>Snacks</i>
Vegetable Spring roll	Vegetable Samosa
Vegetable Samosa	Chicken Spring Roll
Vegetable Tikka	
<i>Main Course</i>	<i>Main Course</i>
Vegetable Biryani	Vegetable Biryani
Palak Paneer	Butter Chicken
Vegetable Jalfarezi	Madras Fish Curry
Gobi Masala	Aloo Gobi
Dal Fry	Dal Tadka
Steamed Basmati Rice	Steamed Basmati Rice
<i>Dessert</i>	<i>Dessert</i>
Gajar Halwa/Kheer	Rice Pudding / Gajar Halwa
Gulab Jamun	Chocolate Cake
Cut Fruit Platter	Fruit Salad

- Sample menu for a birthday party



- Vegetable biryani
- Raita
- Paneer kofta
- Curd rice
- Birthday cake
- Gulab jamun
- Ice cream
- Juice

Apart from these occasions,

The general categories of dishes offered in Indian menu are:

- Salads
- Soup
- Indian breads
- Chicken/fish/mutton
- Paneer
- Biryani/Pulao/Rice
- Potato
- Vegetables
- Dal
- Sweets
- Ice cream

Summary:

Menu planning when properly done saves time, energy, provides proper work schedule, adequate nutrients etc. It is the best way to ensure that your body is getting the essential nutrients and one is consuming a balanced diet. Menu planning for various occasions helps in learning about the nutrients required for various age groups, effective menus for different occasions and the proper flow of food service in an occasion.

Review questions:

1. Explain menu.
2. What do you mean by plat du jour?
3. List the factors to be considered while planning a menu.
4. What is a Food Group?
5. What are fixed and cyclic menus?

Long answers:

1. Write short notes on the factors to be considered for menu planning.
2. Plan a menu for the following occasions.
 - a) A lunch menu for an occasion of formal business meeting
 - b) A dinner menu for a birthday party
3. Differentiate between Table d'hôte and a la carte.

UNIT- 9

FOOD COSTING

OBJECTIVES:

At the end of this unit the student will be able to:

1. Understand the concept of food cost
2. Analyze the elements of cost
3. Calculate the elements of cost
4. Calculate the profit

I.INTRODUCTION

Food cost refers to the cost of raw materials used in preparing food. It is inclusive of the decorative items or materials used to support the food e.g., silver foil, cake wrapper, etc.

However some small vendors add the transportation cost to food cost as well.

Food cost is the net materials purchased divided by the restaurant's net sales.

Hotel operations are business. Thus, both the cooks and managers have a great deal of responsibility for food cost controls.

The cooks must be conscious of accurate measurement, portion control, and careful processing, cooking and handling of foods to avoid excess trimming loss, shrinkage and waste. Every cook must understand three areas of cost accounting: Yield Analysis, Calculating raw food cost or portion cost, and using food cost percentages.

The managers, on the other hand, are concerned with determining budgets, calculating profits and expenses and so on.

Advantages of food cost are as follows:

1. It discloses the net profit made by each meal produced.
2. It enables the hotelkeeper to determine the profit made on the sale of accommodation.
3. An efficient system of costing will reveal possible sources of economies and thus result in a more rational utilization of labour, stores, etc.
4. It provides valuable information necessary for the adoption of a sound price policy.
5. It must be regarded as an important instrument in the hands of management.

II. COST ACCOUNTING

The process of accounting for cost which begins with the recording of income and expenditure or the bases on which they are calculated and ends with the preparation of periodical statements and reports for ascertaining and controlling costs.

Cost accounting may be defined as the analysis and allocation of expenditure of:

- A. determining the cost of each product or service and
- B. presenting appropriate cost information to the management.

A. OBJECTIVES OF COST ACCOUNTING:

1. **Ascertainment of cost:** It means analysis of actual information as recorded in financial books. It is accurate and is useful in the case of "cost plus contracts" where price is to be determined finally on the basis of actual cost.
2. **Determination of selling price:** Cost accounting provides the information regarding the cost to make and sell the product or services produced. Though the selling price of a product is also influenced by market conditions, which are beyond the control of any business, it is still possible to determine the selling price within the market constraints.
3. **Cost control:** To exercise cost control, the following steps should be observed:
 1. Determine clearly the objective,
 2. Measure the actual performance
 3. Investigate into the causes of failure to perform according to plan, and
 4. Institute corrective action
4. **Cost reduction:** It is the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitability for the use intended in the quality of the product.
5. **Ascertaining the profit of each activity:** The purpose under this step is to determine costing profit and loss of any activity on an objective basis.
6. **Assisting management in decision making:** Decision making is defined as a process of selecting a course of action out of two or more alternative courses.

B. ADVANTAGES OF COST ACCOUNTING:

1. **Cost determination:** Cost accounting helps in identifying all expenses incurred to produce a product and determination of total cost of production.
2. **Helping in cost reduction:** The application of various cost accounting techniques helps in achieving the objective of the organization to reduce cost.
3. **Determination of selling price:** Cost accounting is quite useful for price fixation.
4. **Cost comparison:** Cost comparison helps in cost control. Comparison may be made in respect of costs of jobs, processes or cost centers.

C. LIMITATION OF COST ACCOUNTING:

- Expensive
- Duplication of work.
- **Inefficiency:** Costing system itself does not control costs but its usage does.

D. IMPORTANCE OF COST ACCOUNTING:

- Control of Direct and Indirect cost
- Measuring efficiency and fixing responsibility
- Budgeting
- Price determination
- Curtailment of loss during the off-season
- Expansion
- Arriving at decisions

III. CLASSIFICATION OR TYPES OF COST:

Fixed cost: These are the costs which are incurred for a period, and which, within certain output and turnover limits. They do not tend to increase or decrease with the changes in output. Fixed costs are expenses that have to be paid by a company, independent of any business activity. E.g., rent, insurance.

Variable cost: These costs tend to vary with the volume of activity. The cost raise as production increases and falls as production decreases. Any increase in the activity results in an increase in the variable cost and vice-versa. E.g., direct labour, etc.

Semi-variable cost: These costs contain both fixed and variable costs and thus partly affected by fluctuations in the level of activity. Semi-variable cost, also known as a semi fixed cost or a mixed cost, is a cost composed of a mixture of fixed and variable components E.g., telephone bills, gas, electricity, etc.

IV. ELEMENTS OF COST:

- Material cost:
 - **Direct materials:** Materials which are present in the finished product or can be identified in the product are called direct materials. Example, vegetables, meat, milk purchased for a specific job etc.
 - **Indirect materials:** Materials which do not normally form part of the finished product are known as indirect material, eg., stores used for maintaining machines and buildings, stores used by service departments like power house, canteen, etc.,
- Labour Cost:
 - **Direct Labour:** Labour which can be identified wholly to a cost object is called direct labour. Eg. Labour engaged on the actual production of the product or in carrying out the necessary operations for converting then raw materials into finished product.
 - **Indirect Labour:** This cost cannot be allocated but can be apportioned to or absorbed by cost units or cost centre is known as indirect labour. Eg. Supervisors, maintenance workers, etc.
- Overhead cost:

It is the aggregate of indirect material costs, indirect labour costs, and indirect expenses.

V. CALCULATION OF ELEMENTS OF COST:

MATERIAL COST (Food cost)

While calculating the material cost, the opening stock, fresh stores receipts, closing stock and the food consumed by staff or served as complementary to guests has to be taken into account.

Material cost or food cost =

**Opening stock + Fresh indents or Purchases - Closing stock -
(Food consumed by staff + food served to the guest)**

ILLUSTRATION 1.

Calculate the total Material (food) cost and its percentage to Net sales from the following information:

Total sale	Rs. 60,000
Opening stock	Rs. 1,500
Fresh indents/purchases	Rs. 13,000
Closing stock	Rs. 1,000
Food consumed by staff	Rs. 700
Food served to guests (as complementary)	Rs. 500

SOLUTION:

Total Material cost or Food cost :

Opening stock	1,500
Add: Fresh indents or Purchases	13,000
	<hr/>
	14,500
Less: Closing stock	1,000
	<hr/>
	13,500

Less:

Food consumed by staff 700

Add: Food served to guests 500

1,200

Less food consumed by staff and guests 1,200

Total Material or Food cost 12,300

The formula to calculate the Material or Food cost percentage to Net sales is=

Total Material cost / Total sale * 100

$$= 12,300 / 60,000 * 100 = 20.5\%$$

LABOUR COST:

The labour cost include a part from wages and salaries, all other expenditure incurred on staff like Employees' Provident fund (E.P.F.), Medical Re-imbursement, Leave Travel Concession, uniform, accommodations, telephone, interest subsidy on loan, etc.

ILLUSTRATION 2.

Calculate the total Labour cost and its percentage to Net sales from the following information:

Total sale	1,15,000
Wages and salaries	7,100
L.T.C.	1,300
Food worth 450, charged at	200
Contribution towards E.P.F.	800
Medical re-imbursement	600
Interest subsidy	300
Free telephone at home	500
Accommodation worth Rs. 700, charged at	300

Uniform and washing allowance	500
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SOLUTION:

Wages and salaries		7,100
+ L.T.C.		1,300
+ Contribution towards E.P.F.		800
+ Medical re-imbursement		600
+ Interest subsidy		300
+ Free telephone at home		500
+ Uniform and washing allowance		500
+ Rent for accommodation	700	
Less: Charged from employees	300	
		400
+Food for employees	450	
Less: Money charged for food	200	
		250
Total Labour cost		11,750

The formula to calculate the labour cost percentage to net sales is:

$$\text{Total Labour cost} / \text{Total sale} * 100$$

$$= 11,750 / 1,15,000 * 100$$

$$= 10.2\%$$

OVERHEAD COST:

The costs like office expenses, rent, interest, light and power, fuel, gas, commission water charges, advertisement, marketing expenses, miscellaneous expenses, etc. are included under this head.

ILLUSTRATION 3.

Calculate the overheads and its percentage to Net sales from the following data:

Total sale	28,000
Rent	4,000
Interest	1,000
Commission	600
Depreciation	1,000
Advertisement	700
Gas and Fuel	200
Laundry	300
Electricity and Power	500
Water	100
Miscellaneous expenses	1,000

SOLUTION:

Rent	4,000
+ Interest	1,000
+ Commission	600
+ Depreciation	1,000
+ Advertisement	700
+ Gas and fuel	200
+ Laundry	300
+ Electricity and Power	500
+ Water	100
+ Miscellaneous expenses	1,000
	<hr/>
Total overhead cost	9,400

The formula to calculate the overhead percentage is:

Total Overhead cost / Total sale *100

$$= 9,400 / 28,000 * 100$$

$$=33.6\%$$

ILLUSTRATION 4:

From the following information calculate the Food cost, Labour cost and Overheads cost and also calculate Gross profit or Gross Loss and Net profit or Net Loss and their percentage to total sale.

Sale	3,84,000
Opening stock	12,000
Closing stock	12,000
Purchases	1,00,000
Staff was served free food	2,000
Complementary food served to guest	2,000
Accommodation 2,000 charged at	500
Interest subsidy	500
Wages and Salaries	40,000
Contribution towards E.P.F.	5,000
Medical Re-imburement	4,000
Laundry	500
Telephone bills	1,000
Rent for restaurant	12,000
Repair and Maintenance	2,000
Electricity and power	1,500
Water charges	500
Gas and fuel	2,000

Office expenses	5,000
Printing and Stationery	1,000
L.T.C.	1,200
Depreciation	1,000
Miscellaneous expenses	800

SOLUTION:

Total Food cost:

Opening Stock	12,000	
+ Purchases	1,00,000	
		<hr/>
		1,12,000
- Closing stock	12,000	
		<hr/>
		1,00,000
Less: Staff meal	2,000	
		<hr/>
		98,000
Less: Free food to guests	2,000	
		<hr/>
Total Food Cost	96,000	
		<hr/>

Total Labour Cost:

Wages & salaries	40,000
+Contribution towards E.P.F.	5,000
+Medical Re-imburement	4,000
+Laundry	500
+L.T.C.	1,200
+Staff meal	2,000
+Staff accommodation	
(2,000 -500)	1,500
+Interest subsidy	500

Total Labour cost	54,700
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Total Overhead cost:

Telephone bills	1,000
+ Rent for restaurant	12,000
+ Repair and maintenance	2,000
+ Electricity and power	1,500
+ Water charges	500
+ Gas and fuel	2,000
+ Office expenses	5,000
+ Printing and stationery	1,000
+ Depreciation	1,000
+ Food served to guest	2,000
+ Miscellaneous expenses	800
Total overhead cost	28,800

Food cost percentage = Total Food cost / Total sale * 100

= 96,000 / 3,84,000 * 100

= 25%

Labour Cost percentage = Total Labour cost / Total sale * 100

= 54,700 / 3,84,000 * 100

= 14.24%

Overhead percentage = Total overhead cost / Total Sales * 100

$$= 28,800 / 3,84,000 * 100$$

$$= .5\%$$

Total Cost = Total food cost + Total Labour cost + Total Overhead cost

$$= 96,000 + 54,700 + 28,800$$

$$= 1,79,500$$

Gross profit = Total Sale - Total Food Cost

$$= 3,84,000 - 96,000$$

$$= \text{Rs. } 2,88,000$$

Net Profit = Total Sale - Total Cost

$$= 3,84,000 - 1,79,500$$

$$= \text{Rs. } 2,04,500$$

Net Loss = Total Cost - Total Sale

Gross Profit Percentage = Gross Profit / Total Sale * 100

$$= 2,88,000 / 3,84,000 * 100$$

$$= 75\%$$

Net Profit Percentage = Net Profit / Total Sale * 100

$$= 2,04,500 / 3,84,000 * 100$$

$$= 53.25\%$$

COST PER PORTION = Total cost / No. of portion

REVIEW QUESTIONS

1. Explain cost, costing and cost accounting?
2. What is Food Cost?

3. Describe the three major elements of cost:
4. Explain Variable, Semi-variable and Fixed cost:
5. How does the Variable, Semi-Semi-Variable and Fixed cost affect the food cost?
6. How will you calculate the cost per portion?
7. The following are the figures of ABC Hotel. Calculate (a)Gross Profit Percentage and (b) Net Profit Percentage:
Sales ó Rs. 20,000, Food Cost ó Rs. 7,000, Labour &Overhead cost ó Rs. 3,500
(a. 65% and b. 47.5%)
8. Find the Food cost whenFood cost percentage is 33% & Total sale is Rs. 1000/-
(Rs.330/-)
9. Calculate the Gross Profit percentage, when Total sale is Rs. 10,000and Total Cost is Rs 7,500/-
(25%)
10. From the following information you are required to calculate:
The elements of cost and to express each as a percentage of sales, assuming that
Rs. 800/- spent as staff meal and Rs. 500/- was spent for complementary food.
Calculate the gross profit after wages and net profit.

	Rs.
Sales	35,000
Opening stock	2,500
Closing stock	3,000
Purchases	15,000
Wages & Salaries	5,500
E.S.I.	300
Gas & Electricity	800
Depreciation	2,000
Repairs	1,000
Printing & stationery	300
Insurance	400
Postage &Telephone	200

(a. Food cost % = 65.71%, Labour cost % = 18.86%, Ocerheads % = 14.86%)

(b. Gross profit = Rs.6,300, Net profit =Rs. 0)

UNIT-10

FOOD SAFETY

OBJECTIVES

At the end of the unit the students will be able to: -

- Identify the causes of food contamination
- Explain the concept of danger zone
- Identify the food borne diseases
- To describe the importance of garbage separation and disposal

I. INTRODUCTION

The importance of food and kitchen safety should be understood as it can be detrimental to a food service establishment. The outbreak of food borne diseases can be caused due to poor hygiene conditions and applying strict food safety norms should be practiced.

II. CAUSES OF CONTAMINATION

The main causes of food contamination in a kitchen are due to:

- raw meat and poultry
- food handlers
- animals, rodents, birds and insects
- dust and refuse.

A. Raw meat and poultry

The intestines of animals and poultry frequently carry bacteria that can cause food poisoning. The animals themselves usually appear healthy when they are slaughtered, but in the slaughter house the surface of the raw meat becomes contaminated with bacteria from the animal's intestine. Certain dos and don'ts while handling raw meat are as follows:

- Raw meat should be transported in refrigerated vehicles.
- Always store cooked meat above raw meat in a refrigerator.
- Preparation of raw meat should be done in separate areas

- Different chopping boards and utensils for the preparation of raw meat and high-risk foods should be followed.
- Washing of hands before and after the handling of the meat is essential.



Always keep raw meat and poultry well separated from cooked food.

B. Food handlers

The bacteria that cause food poisoning may be present in and on the human body. Bacteria called *Staphylococcus aureus* are found on the hands, under the fingernails, nose, throat and mouth.

As Open cuts and wounds are a source of *Staphylococcus aureus*, they should be covered with a waterproof plaster to prevent the contamination of food.

A person harboring food poisoning bacterium in the intestinal tract is called a **carrier**. A person who has recently recovered from food poisoning but still harbouring pathogenic bacteria in his/her intestines is a carrier. Pathogenic bacteria will be passed in the faces of carrier and are likely to be transferred to the carrier's hand during visits to the toilet.

Some of the ways to prevent contamination by food handlers

- Do not sneeze or cough over food.,
- Use serving tongs for handling cooked food.
- Do not handle food when suffering from septic cuts or boils.
- Always wash your hands after visiting the toilet.
- Do not handle food while suffering from or recovering from food poisoning.
- Use tongs to serve high risk food



C. Animals, rodents, birds and insects

Pets, rodents, cockroaches and insects frequently carry food poisoning bacteria in their intestine tract, as well as their body and feet. For this reason, the food that has been partly eaten or licked by an animal must be discarded, and any food preparation surface that has been walked or must be cleaned and disinfected.

Flies spread food poisoning bacteria to food because they vomit and defecate on it while they are feeding.

Some of the ways to prevent contamination by pets are :-

- Keep the doors and windows of the kitchen shut and be covered with mesh.
- Ensure that rodents and cockroaches are not present.
- Install electronic fly killers in the kitchen.
- Do not allow pets into the kitchen.



D. Dust and Dirt

Soil and dust contain spores of food poisoning bacteria called *Clostridium perfringens*. It is therefore important that kitchens are cleaned regularly and kept relatively free of dust. Soil and dirt must be removed from fresh vegetables before they come into contact with other foods.

Waste food in dust bins in a warm kitchen provides ideal conditions for bacteria to live and to reproduce.

Some ways to prevent contamination by dust and dirt.

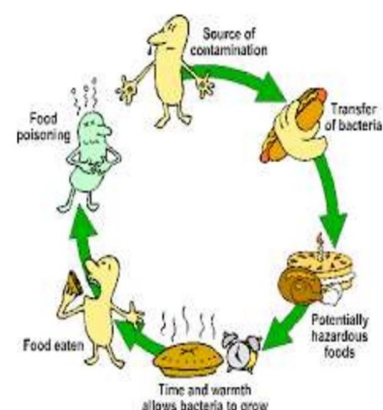
- Always clean raw vegetables in separate room.
- Cover the cooked store away during cleaning of the kitchen.
- Empty dustbins regularly and allow them to overflow.

Bacterial growth in time due to cross contamination

Cross contamination.

Raw meat, food handlers, animals and dust are all sources of bacteria and bacteria are often transferred from them to high risk foods by a process known as **cross-contamination**.

Cross-contamination is the transfer of bacteria from contaminated source to an uncontaminated food through



the following ways: -

Éhands

Éutensils, chopping boards, work surfaces, cloths or other equipment

Édroplets of moisture during sneezing and coughing

Édrops of liquid from contaminated food.

If the food is left to stand at a warm temperature for several hours, the bacteria transferred through cross contamination will multiply rapidly and will cause food poisoning.

Colour coding of equipment

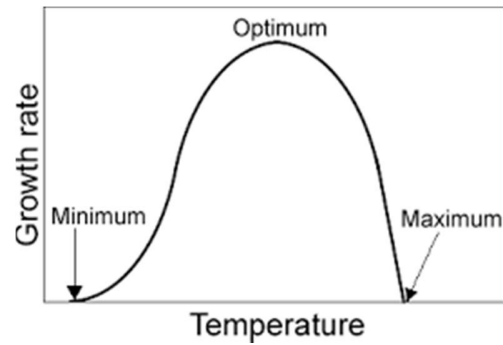
Equipment such as chopping boards and knives should be used in the preparation of only one type of food to avoid cross-contamination between raw and cooked foods. A color-coding system can be used to identify which equipment can be used for which type of food.

Color coding for equipment

Colour Code	Equipment to be used only for
Red	Raw meat and poultry
Green	Fruits and vegetables
Blue	Raw fish
Brown	Cooked meats
White	Dairy products

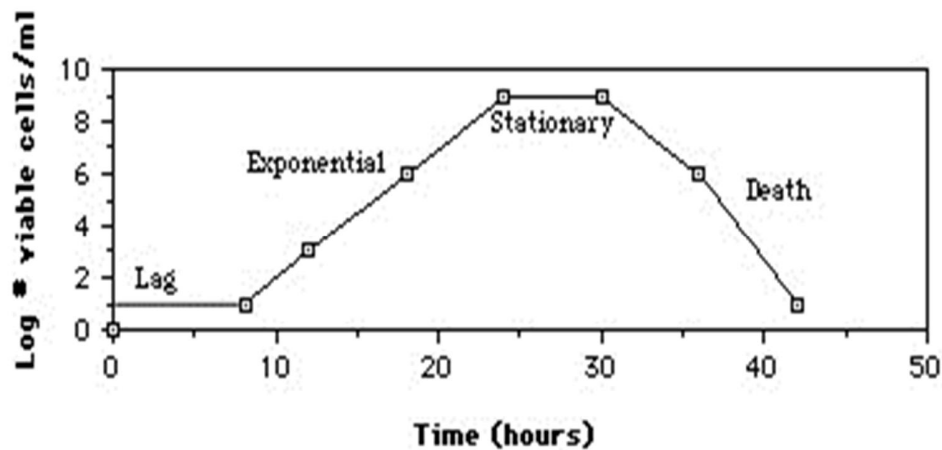
III. CONCEPT OF DANGER ZONE

Bacteria are very small and consist of only one cell. They are usually rod shaped or spherical, although a few are comma shaped or spiral.



GROWTH OF BACILLUS STRAIN ON A FOOD ARTICLE

Bacteria reproduce by splitting into two individual cells which increase in size and again split into two cells. This process is known as binary fission. In ideal conditions, binary fission can take place approximately every 20 minutes. Hence, this method of reproduction results in a very rapid increase in the total number of bacterial cells present in food in a relatively short time.



Growth curve for a bacterium thriving on a food article.

Condition necessary for bacterial growth

Bacteria require the following conditions for growth and multiplication:

- warmth
- food
- moisture
- time

Warmth

Most bacteria need warm temperature to multiply. They will multiply at any temperature between 5°C and 63°C and this temperature range between 5°C to 63°C is known as danger zone.

Food

Like all living things, bacteria require a source of energy and to grow.

The following foods will support bacterial multiplication if kept at temperatures within the danger zone:

Écooked meat and poultry, meat pies, pate, soups, stocks, gravy and gelatin

ÉMilk, cream, eggs, soft cheeses and foods containing them as ingredients, e.g., quiches, trifles and cream cakes

ÉShellfish and other seafood

Écooked rice

ÉRaw meat

High-risk foods must be stored in a refrigerator.

Moisture

Bacteria need water for growth and multiplication. All high-risk foods contain enough water for bacterial growth.



Time

If bacteria are given a suitable temperature, food and moisture, they simply need time to multiply. In a relatively short time, a few pathogenic bacteria (which are often present in food) will multiply to a sufficiently in large number to cause food poisoning.

Therefore, when all the conditions are favorable, and the temperature is between 5°C to 63°C, bacterial contamination, will take place. Hence food when cooked at high temperatures, bacteria will not be able to survive as they do not grow or multiply.



IV. DISEASES

Bacteria Disease	Cause/characteristics	Source of Bacteria	Prevention
Botulism	Caused by bacterium clostridium botulinum, this attacks the nervous system and is usually fatal, the bacteria are anaerobic (do not grow in air) and do not grow in high acid food. Most outbreaks are caused due to improper canning	Soil on vegetables.	Discard without tasting any bulged or damaged cans or food with off odors.
Staphylococcal Food Poisoning (staph)	Caused by toxins produced in foods by nausea, vomiting, stomach pain diarrhea and prostration.	Usually by food handler	Practice good hygiene and work habits. Do not handle the food if you have an illness or infection clean and sanitize all the equipment. Keep foods below 41 ⁰ F(5 ⁰ C) or above 135 ⁰ F(57 ⁰ C).
Escherichia coli	Severe abdominal pain, nausea, vomiting, diarrhea, and other symptoms result from E. coli as an infection, E. coli causes intestinal inflammation and bloody diarrhea, while the illness normally lasts from one to three days, in some cases it can lead to long term illness	Intestinal tracts of humans and some animals, especially cattle; contaminated water	Cook food thoroughly and avoid cross contamination and follow good hygiene practices.

Clostridium perfringens	Nausea, cramps, stomach pain, and diarrhea. The bacteria are hard to destroy because they are not always killed by cooking.	Soil, fresh meats, human carriers	Keep foods hot (above 135°F/57°C) or cold (below 41°C/5°C)
Bacillus cereus Gastroenteritis	Caused by Bacillus cereus. Symptoms include nausea, and stomach pain. This disease usually lasts less than a day.	Soil & dust, grains, and cereals	Temperature control: cook food to proper internal temperatures; chill foods quickly and properly.
Campylobacteriosis	Caused by campylobacter jejuni this disease usually lasts for 2-5 days, or up to 10 and days & causes diarrhea fever, nausea, vomiting abdominal pain, muscle pain and head ache	Meat and dairy products unpasteurized dairy products; raw poultry; contaminated water	Cook foods to proper internal temperature use pasteurized dairy products; safe food handling practices to avoid cross contamination avoid using contaminated water
Viruses	Cause/characteristics	Source of contamination	Prevention
Hepatitis A	This is a severe disease that can last for several months	Contaminated ice, shellfish from polluted waters, raw fruits and vegetables milk and milk products, infected food workers	Practice good health and hygiene.
Norwalk virus Gastro enteritis	This disease affects the digestive tracts, causing	Food handlers contaminated water	Practice hygiene. Use chlorinated water to cook

	nausea vomiting stomach cramps diarrhea, fever		to safe internal temperature.
Rotavirus Gastroenteritis	The symptoms are vomiting and diarrhea abdominal pain and mild fever	Human intestinal tract contaminated water	Practice health and hygiene use sanitary chlorinated water cook foods to safe internal temperatures.
Parasite	Cause/characteristics	Source of contamination	Prevention
Toxoplasmosis	Caused by protozoan. Human body enlarged lymph nodes severe muscle pain and headaches, and skin rash.	Animal feces, mammals, birds	Good personal hygiene; cook meat to proper internal temperatures
Cyclophorias	Diarrhea, weight loss, appetite loss, vomiting muscle aches and fatigue. may last few days to more than a month and may recur every month or two.	Contaminated water, human intestinal tract	Good personal hygiene. Use safe water supplies wash produce properly
Intestinal cryptosporidiosis	This disease may last 4 days to 3 weeks with no symptoms or may have severe diarrhea.	Intestinal tracts of humans and livestock; water contaminated by runoff from farms or slaughterhouses	Good personal hygiene, wash produce properly, use safe water supplies.

METALLIC CONTAMINANTS

If metals like arsenic, lead or mercury get accumulated in the body they can be harmful. For E.g. Lead is a toxic element and contamination of food with lead can cause toxic symptoms. Sometimes Turmeric is also adulterated with lead chromate. Lead brings about pathological changes in the Kidneys, liver and arteries. The common signs of lead poisoning are nausea, abdominal pain, anaemia, insomnia, muscular paralysis and brain damage. Fish caught from water contaminated with mercuric salts contain large amounts of mercury. The organic mercury compounds methyl or diethyl is the most toxic. The toxic effects of methyl mercury are neurological. When the brain is affected, the subject becomes blind, deaf and paralysis of the various muscles makes him cripple. The other elements which are toxic in small doses are cadmium, arsenic, antimony and cobalt.

Name	Food commonly involved	Toxic effect
Arsenic	Food sprayed with lead arsenate, drinking water	Dizziness, chills, cramps, paralysis leading to death.
Barium	Foods contaminated with rat poison (barium carbonate)	Violent peristalsis, muscular twitching and convulsions.
Cadmium	Fruit juices and soft drinks, which encounter cadmium and plated vessels.	Excess salivation, liver and kidney damage, prostate cancer, multiple fractures.
Cobalt	Water and beer	Cardiac failure.
Copper	Acid foods in contact with tarnished copper ware	Vomiting, Diarrhea, abdominal pain.
Lead	Some processed foods. Lead water pipes	Paralysis, Brain damage.
Mercury	Mercury fungicides treated seed grains or mercury. Contaminated fishes	Paralysis, brain damage and blindness.

Tin	Canned food	Colic, vomiting, photophobia.
Zinc	Food stored in galvanized iron wire	Dizziness, Vomiting.
Pesticides	All types of food	Acute/chronic poisoning causing damage to the liver, kidney, brain and the nerves leading to death.
Antibiotics	Meat from animals fed with antibiotics	Drug resistance, hardening of the arteries of the heart.

V. IMPORTANCE OF GARBAGE SEGREGATION AND DISPOSAL

Waste Water Disposal

We use plenty of water in the kitchen during the food production for cooking and washing purposes. A proper disposal of used water is mandatory as this cannot be allowed to stay in the kitchen for a long time. Waste water may become a source of contamination. The water used for cleaning of surfaces, equipment, pots and pans should be drained off immediately. Drainage system should be planned to remove the waste water through drains.

All the water from the wash up area may have a separate drain pipe as most of the fat and oil is washed and goes out of kitchen from that pipe. Choking of drains should be monitored frequently. Hot water helps in draining off extra fat or oil in the pipe.

Open drains in the kitchen should have Stainless-Steel grill cover. It helps in draining off spilled water on the floor and the cleaning of the drain. The cover restricts large pieces of dust to go in the drain pipe and thus prevents choking of drain pipe. All the sinks fitted in the kitchen or wash up area should have a mesh to restrict pieces of food, vegetable, meat and other foreign material from going into the drain.

Kitchen Equipment's

All the large or small kitchen equipment need to be cleaned, wiped or washed frequently. This will check any growth of harmful bacteria in and around the surface of these equipments. Special

care should be taken for Door handles of fridge, working tables, pot racks etc. as food handlers touch these surfaces frequently.

Waste Disposal

Kitchen waste disposal is becoming a source of contamination if not treated and disposed off quickly. The kitchen waste has different category as Organic and Inorganic. There are waste like vegetable and fruit peels, pulps, meat trimmings, bones, empty cans & bottles, spoiled food, packing material (cardboard boxes, cling films, empty poly thin packets, paper packets' used gloves etc and this must be segregated accordingly.

Normally the kitchen waste is distributed into two major categories:

1. Organic or bio degradable waste:

Fruit peels, pulps, meat trimmings, spoiled food' bones, paper, cardboard boxes. Organic waste is biodegradable and can be processed in the presence of oxygen by composting or in the absence of oxygen using anaerobic digestion. Both methods produce as soil conditioner, which when prepared correctly can also be used as a valuable source of nutrients in urban agriculture. Anaerobic digestion also produces methane gas an important source of bio-energy.

2. Inorganic or bio non-degradable waste:

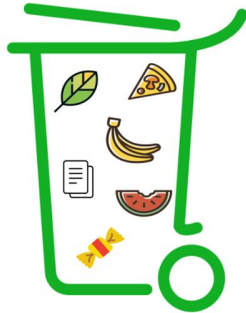
Empty cans & bottles, packing material, cling films, empty poly thin packets, and used gloves. Inorganic waste is bio non degradable which cannot be processed for composting. Glass, plastic, aluminium etc. are collected separately so that they can be segregated and sent for recycling. Different coloured dust bins are used for separate categories and the staff is trained to use them accordingly.

Waste segregation means dividing of the waste into either biodegradable or non-biodegradable waste. Wet waste refers to the organic waste generated from kitchen waste like fruits/vegetable peels, tea leaves, coffee pods, egg shells, meat and their bones, food scrapes, leaves and flowers can be composted.

Dry waste refers to the paper, plastic, metal, glass.

There should be separate bins separate bins for dry waste and wet waste.

WET WASTE



DRY WASTE



Summary

Food may cause several infections due to microorganism present in them. The food which is not stored properly, or which was already infected will certainly lead to some disorder in human body. These disorders are called Food Poisoning. Some of the major food borne diseases is Staphylococcus, Botulism, Salmonella, Streptococci and Perfringens Food Poisoning

Hence good hygiene practices, washing produce properly and usage of portable water is essential to prevent food contamination.

Answer the followings:

1. Explain the causes of food poisoning.
2. What is Staphylococcus food poisoning?
3. What precautions we should take to stop the food poisoning?
4. What are metallic contaminants?
5. What is cross contamination?
6. Briefly explain effects of Clostridium Perfringens.
7. Explain the cause of contamination
8. Elaborate on garbage separation and disposal.