

STD XII

BAKERY SYLLABUS FOR CRM COURSES

Unit 1

**PASTRY DOUGH AND PRODUCTS (SHORT CRUST DOUGH, SWEET DOUGH, CHOUX PASTE
(10 marks)**

Ingredients and their role in pastry making

Making of pastry dough and its products (Short crust dough, Sweet dough, Choux paste)

Unit 2

PASTRY DOUGH AND PRODUCTS (PUFF & LAMINATED PASTRIES) (10 marks)

Making of pastry dough and its products (Puff pastry, Strudel pastry, Phyllo pastry)

Laminated pastries and method used (Danish pastries, croissants)

Unit 3

COOKIES AND BISCUITS (10 marks)

Ingredients and their role in production of cookies

Types of cookie dough, method used in making (drop cookies, sheet cookies, pressed cookies, meringue cookies)

Examples of cookies made using different methods

Characteristics of a good cookie, fault identification

Unit 4

CAKES (10 marks)

Ingredients and their role in production of cakes

Types of cake sponges, mixing methods and techniques (Creaming method, Whisked sponge, Egg separation method, Oil based cake sponge)

Examples of cake sponges made using different methods (Pound cake, Swiss roll, Madeira cake, Chiffon cake)

Characteristics of a good cake sponge, fault identification

Icings and fillings used in cakes (butter icing, royal icing, whipped cream, fondant, gumpaste, marzipan, chocolate(glaze and fudge), praline)

UNIT 5

INTERNATIONAL CAKES (5 MARKS)

Components of international cakes:Black forest, Dutch truffle, Cream cakes, Cheesecake, Chocolate mud cake, Opera cake, Pineapple upside down, Pavlova,Napoleon gateau, Yule log, Brownies, Christmas fruit cake, Plum pudding,Charlotte russe, Tiramisu.

COLD & FROZEN DESSERTS (5 marks)

Types of Cold Desserts: Bavarians, Chiffons, Mousses and Soufflés.

Types of Frozen Desserts

Sherbet – Types

Ice Creams - Types

UNIT 1

Pastry dough and products (Short crust dough, Sweet dough, Choux paste)

- Ingredients and their role in pastry making
- Making of pastry dough and its products (Short crust dough, Sweet dough, Choux paste)

The very nature of most pastries is to be light, airy, flaky, and buttery. All pastry starts out as a combination of ingredients, such as flour, water, salt, butter or other fats, and is made by using different ingredients, mixing and baking techniques.

In puff pastry, a certain amount of gluten formation is essential, but all of the gluten strands must lie in one plane to give strength to the horizontal sheets. Here, the folding and rolling technique is used.

INGREDIENTS AND THEIR ROLE IN PASTRY MAKING

FLOUR: Wheat flour is essential to pastry-making because it is the only flour with the gluten that allows dough to stretch and expand in the oven. Different types of wheat flours are suited to different types of pastry. Pastry flour, which is milled from soft wheat, is best for rich short crust and refrigerator dough's. Regular short crust and choux pastry require allpurpose flour, a mixture of hard and soft wheats, with a gluten content high enough to make dough's resilient but still tender. To produce tender puff pastry, a mixture of all-purpose flour and low-gluten cake flour is recommended. Dough's for strudel and phyllo should be made from strong, high-gluten bread flour that can stand up to stretching into large thin sheets.

EGGS are another basic ingredient in many baked products. They provide structure, aeration, flavour and moisture. They also tenderise cakes and add colour and nutritive value.

FATS AND OILS : Fat, in the form of butter, margarine, solid vegetable shortening, lard, or vegetable oil, plays several important roles in pastry-making. In addition to adding flavor, the fat coats and separates flour particles, helping to lubricate and tenderize the pastry. Because fat is not absorbed by the other ingredients, it acts as a spacer, contributing flakiness to the pastry. The method of incorporating the fat into the dough affects the final texture, and differs with the various pastry types. Whether the fat is creamed, cut in, rolled in, or melted, it should be evenly distributed throughout the mixture. They also provide some nutritive value. It is important to add the correct amount of fat as too much fat will make the baked product greasy and unpleasant to eat, while too little fat will leave you with a product that lacks flavour and stales quickly.

LIQUIDS: Water and milk are the most commonly used liquids in pastry but orange and lemon juice, cream, egg, and other additions can contribute to the flavor and texture of the pastry. The liquid starts the development of gluten in the flour. During baking, the liquid turns to steam, helping to leaven the pastry. The amount of liquid used will affect the tenderness of the dough, as does the fat and type of flour.

Milk is used in baked products to improve texture and mouthfeel. The protein in milk also gives a soft crumb structure in cakes, and contributes to the moisture, colour and flavour of a baked product. Cakes that contain milk also tend to have a longer shelf life.

SALT is usually only added in very small amounts to baked products, but it has a noticeable effect on the flavour of baked products. It not only provides its own flavour but brings out the natural flavour of other ingredients. In bread doughs, salt strengthens gluten and improves the consistency of the dough. Carbon dioxide given off by the yeast is more easily trapped by the strengthened gluten, which makes a better loaf of bread. Salt is also a good preservative as it absorbs water so there is less free water for bacterial and fungal growth.

SUGAR gives cakes and other baked products sweetness and is used in many forms and many ways. In yeast raised products, sugar acts as food for the yeast. In cakes, sugar assists with the aeration and stabilising of batters. Sugars improve the crust colour of baked products, improve flavour and help to retain moisture, keeping products softer for longer and so reducing staling. Examples of sugar forms are granulated sugar, castor sugar and icing sugar. Sugar also comes in liquid forms such as syrup, treacle, corn syrup, honey and caramel.

YEAST belongs to the fungi family. It ferments carbohydrates (sugars) to produce carbon dioxide gases and alcohol, which aerate bread and other yeasted products, giving it volume and texture. These by-products of yeast also contribute to the colour and aroma of bread and other yeasted products.

LEAVENERS: Steam acts as the raising agent in puff and flaky pastries. In choux pastry the raising agents are eggs plus steam. Baking powder and baking soda can be used to leaven. The yeast in Croissants and Danish depend upon the thin layers of butter to "help" the yeast; the fat particles produce steam from the water in the butter (butter is 81 % fat and 19 % water) when baked, and that from yeast, gives them their light and flaky texture.

ACIDIC INGREDIENTS: Cider Vinegar/Lemon Juice as well as buttermilk, sour cream or other acidic ingredient can be found in pie crust recipes. They tenderize the flour's gluten, formed in the dough when wheat flour is moistened and stirred, as well as when rolling and handling the dough. Gluten is a toughener and acidic ingredients weaken the gluten that forms, making the crust tender and less likely to shrink. (Keeping well chilled ingredients and dough also helps with preventing shrinkage).

There are 5 types of pastries.

1. Short Crust Pastry.
2. Choux Pastry.
3. Puff Pastry.
4. Flaky Pastry.
5. Laminated Pastry

SHORT CRUST PASTRY

Short crust pastry is a mixture of flour, fat, sugar and sometimes egg and milk. The flour should have low gluten content, one that is milled from soft wheat flour. The fat will reduce the extensibility of the gluten that is it makes the gluten strands shorter....hence the term ***shortening*** for the fat used in the bakery and the term ***short crust pastry***.

The usual method of making short crust pastry is by the rub-in method. Chilled fat or butter is rubbed into the sieved flour so that it is finely dispersed and resembles a sandy or bread crumb like texture. The fat forms a thin layer or coating on the glutenin and gliadin molecules, without turning the fat into a continuous paste. Cold water is sprinkled over the mixture to form smooth dough. The ratio of fat to flour is normally 1:2, but the fat can be increased to equal the flour to obtain a rich dough. This dough would be very difficult but not impossible, to work with.

Various sweet and savoury products are made with short crust pastry. It forms the base of several pies, tarts, flans and also products like cheese straws and turnovers. Few precautions must be taken when making short crust pastry. It is important not to work the dough too much as it will get tough due to the development of gluten. This can also happen when scrapings and trimmings are added to the dough and re worked. The use of too much flour for dusting will also alter the ratio of the mixture and cause toughening as the extra flour proteins – glutenin and gliadin - does not have a coating of fat around it, and thus come together to form gluten.

Some faults in Short Crust Pastry

- Hard or tough pastry is due to too much liquid or too little fat. It is also probably due to over mixing.
- A soft and crumbly pastry is due to too little water for the binding, too much fat or the use of self raising flour instead of plain flour.

- A shrunken pastry is due to excess stretching during rolling.
- A soggy pastry is the result of the filling in the product being too moist.

Uses of Short Crust Dough

1. Short Crust dough can be used for making tarts, pies and flans
2. It can also be rolled and cut into shapes and used as savoury biscuits,
3. It can be crumpled and used as a topping on pies to give a rustic look
4. Certain meats are encased in short crust prior to baking.

SWEET DOUGH PASTRY

Sweet dough is sweet in taste. It is short and brittle like the short crust dough, but its usage is restricted to sweet products.

The steps in making sweet paste are given below. Usually the first two are used for making short paste, but if pies or flans are to be made then the latter steps are used.

Step 1

Mix the butter & flour using the following method

Creaming Method: The butter & sugar should be creamed well. It is made light by incorporation of air. Then add eggs one by one until all the eggs are added. Use a flat paddle to beat the mix. Now fold in the sifted flour to obtain a sweet dough.

Rubbing Method: The cut pieces of butter are rubbed into the flour to produce coarse breadcrumbs size particles. Beaten eggs are lightly mixed to form sweet dough. Chill in the fridge before using

Step 2

Chill the paste in the fridge. If the paste is put in a plastic bag and flattened out with the tip of the fingers before refrigerating, it will be easy to roll later.

The other steps are similar to short crust pastry

Uses of Sweet Dough

1. Sweet dough is used for making tarts, pies and flans.
2. It is rolled, cut into various shapes and baked as cookies and biscuits
3. It is used as base for certain cakes and pastries
4. Thin cut out sheets of sweet dough can be used as decorations.

CHOUX PASTRY

The French term for this pastry Pate a choux literally means cabbage paste, because the profiteroles and cream puffs made from this pastry resemble little cabbages. These are hollow shells which have a crisp and brittle texture. They are then filled with a variety of fillings both

sweet and savoury – including creamed cheese, fresh cream, crème patissiere, fish, and meat pate. Water, butter and salt are boiled together and then the flour is added in to form a partly gelatinized paste. It is mixed vigorously with a wooden spoon and then cooked once more till the mixture has a shiny appearance and leaves the sides of the pan. Beaten eggs are added gradually to the paste, beating continuously to form a smooth pliable and piping consistency mass. It is then piped into the desired shapes – rosettes, fingers or balls. Choux paste is baked at 200°C so as to achieve maximum rise. The temperature is then reduced to 150C to dry out the shells and to obtain the crisp and brittle texture. During the baking, the products should not be subjected to unnecessary movements, otherwise the structure will collapse. Shells can be stored in airtight containers and used as and when required. Éclairs, Cream Puffs, Duchesses, profiteroles and cream puffs are all choux pastry based items.

Uses of Choux Paste

Choux paste is a versatile dough and can be used in savoury or desserts. Some of the examples are

1. Savoury Items: Used for making items such as fritters, cheese balls, gnocchi, etc
2. Chocolate Eclairs: Piped in tube shaped usually 4 inches long and after baking it is filled with flavoured cream or custard and glazed with melted chocolate.
3. Profiteroles: Round shaped balls of choux paste baked and filled with flavoured cream and glazed with chocolate, caramelized sugar, sifted icing sugar etc

UNIT 2

Pastry dough and products (Puff & Laminated Pastries)

- Making of pastry dough and its products (Puff pastry, Strudel pastry, Phyllo pastry)
- Laminated pastries and method used (Danish pastries, croissants)

Puff and Flaky are two of the most remarkable products of the Bake Shop. Although they are similar products, they are made differently and it is almost impossible to tell which is. Puff is referred to as the French method whereas the English refer to it as Flaky pastry. The Scots have their own version and call it Rough Puff Pastry. The flour used for laminated pastry must be of high gluten content so that it will stand up to the manipulation involved in building up the laminated structure. Butter is the preferred fat because of its flavour and melt in the mouth quality. Special pastry margarine is also available. It has a low moisture content and good creaming value...ideal for this kind of pastry. This product is easy to work with as it does not get too hard in the refrigerator. A weak acid solution such as lemon juice or cream of tartar is added to the dough, as it will confer greater extensibility to the gluten.

PUFF PASTRY

Puff pastry has equal amounts of fat and flour. A dough is made with flour, salt, and the lemon juice. After allowing it to rest, the dough is rolled out into a square and the creamed block of fat is placed in the centre. The dough is then folded around the fat and it is refrigerated for a while. The dough is then rolled into a rectangle about $\frac{1}{2}$ "thick. Fold the two ends to the centre and then into half (book fold). Make sure that the edges /corners are even. Refrigerate/rest the dough to relax the gluten. Do not refrigerate for too long as the fat will harden. Now turn the dough 90° on the table so that the length now becomes the breadth. This step must be repeated before subsequent rollings so that it helps to stretch the gluten in all directions, not just lengthwise. Failure to do this will result in the product that shrinks unevenly when they are baked. Repeat the rolling and folding a total of four times. The dough is now ready to be rolled out for the final shaping and cutting.

Following precautions should be observed while sheeting puff pastry.

1. Margarine should not become too hard while the dough is relaxed in refrigerator. Very hard margarine will break into small pieces sheeting and the desired layering effect will not be achieved.
2. Margarine should not be too soft otherwise during sheeting operation it squeeze out at one end this also prevent the formation of desired layer.

3. Relaxation of dough in between two sheeting operation is very important. During sheeting operation gluten of the dough is subjected to stress and strain. Extensibility is reduced during relaxation period and regained and further processing becomes easier.

4. Under no circumstances the pastry should be subjected to the undue pressure while sheeting. This may break the continuity of the gluten strands and also break the fat into small pieces. Both these actions will disturb the pattern of layer. It also compress the layer too much which will adversely effect it rise during baking.

5. The entire operation of making puff pastry should be carried at cool temperature. Frictional heat from sheeting action or the atmospheric temperature (warm table cloth, warm rolling pin) should not make the margarine loose which will squeeze out and the proper layer will not be formed while relaxing the pastry. It should be covered with moist cloth in order to prevent it from crusting. If pastry is crusted during processing it will loose its stretchability and its rise in oven will be poor.

Uses of Puff Pastry

Puff pastry is a versatile pastry and can be used in savoury or desserts. There are many uses of puff pastry such as snacks, main courses and even in making pastries and cakes. Some of these are:

1. Vol-au-vent: A disk of 2 inch diameter is cut 7 mm high, and the centre is cut separately with a smaller disk but only to a depth of 5mm. The baked hollow shell looks like a well. The centre part is taken off and the cavity is filled with savoury fillings such as creamy vegetables, etc.
2. Palmers: It is often used as a breakfast pastry and is known as French hearts because of the heart shape
3. Turnovers: The puff is rolled into discs or squares and filled with savoury fillings and turned over or folded over, These are then glazed with egg yolk and baked.
4. Beef Wellington: It is a beef tenderloin fillet wrapped with mushroom duxelle and covered with puff pastry, glazed with egg yolk & baked.
5. Cheese straws: Puff pastry sprinkled with grated cheese and paprika, cut into strips and twisted into long twists and baked.

FLAKY PASTRY

Flaky pastry is a similar product. The dough is similar but the amount of fat is only 2/3 that of the flour. The fat is creamed into a homogenous mass and divided into three parts. The dough is rolled out into a rectangle about ½ "thick. One third of the fat is then spread onto 2/3rd of the

dough surface. The dough is then folded into three so that there are alternate layers of fat and dough. The dough is then rested/refrigerated to relax the gluten. The process is repeated twice more to use up all the fat and then once again without fat (blind fold). Remember to rest the dough between each rolling. The pastry is now ready for the final make up.

STUDEL AND PHYLLO

Unlike puff pastries these desserts, start out with paper thin layers of dough that are brushed with fat and then stacked or rolled up to make many layered creations.

Studel is an eastern European pastry that begins as a soft dough made of hard flour or bread flour, eggs and water. After the dough is mixed well to develop the gluten, it is stretched by hand into a very thin, transparent sheet. This pastry is synonymous with the famous Austrian dessert Apple Strudel. Obtaining a crisp pastry depends on the correct preparation and working of the dough.

'Phyllo' (pronounced fee-lo and sometimes spelled filo or fyllo). It is prepared commercially and traditionally used in Greek and Turkish sweets, savoury pies and pastries. This pastry is plain, with paper thin leaves made from flour and water. These leaves are usually kept frozen and used as & when required.

The guidelines to handle Phyllo dough are:

- 1) Thaw frozen phyllo completely before opening the plastic package or it will break.
- 2) After opening the pack and unfolding and unrolling the sheets of dough, keep the stack of leaves covered to prevent drying.
- 3) Remove and work with one sheet at a time.

Products made from phyllo pastry include Spanakopita, Bourekakia, Lebanese Baklava, Turkish Baklava and Phyllo cups (filled with creamy vegetables or meat filling)

LAMINATED PASTRIES AND METHOD USED

When laminated pastries are baked, the fat melts and forms oil layers between the layers of dough, preventing them from sticking to each other. As the heat penetrates into the product, the water in the dough layers changes into steam and pushes the lubricated leaves of dough apart. This produces an increase in the volume of the dough. Later, the gluten in the flour coagulates while the water is dried out so that by the time the pastry is properly cooked, it is able to retain its distended puffy volume. The temperature of the oven has an important role to play in the success of this product. The temperature must be hot enough to generate the steam required.

Danish pastry is a rich, sweet and fermented dough. The fat is laminated into the dough and therefore, Danish is also considered a laminated pastry. A ferment of yeast, sugar, eggs and

milk is added to the flour to make a soft dough. After resting and knocking back the dough, it is then rolled into a rectangle and the fat spread evenly. The dough is then cut into three uneven sizes and a spool is made....that is....rolling the smallest into the medium and then that into the largest piece of dough. The dough is wrapped into a moist cloth and refrigerated for 15-20 minutes. It is then rolled and cut into the desired shapes. Egg wash is applied and the product is allowed the second proofing and then is baked at 200°C for 20 minutes. The pastry is brushed with sugar syrup after baking.

Croissant is a buttery, flaky pastry named for its well-known crescent shape. The dough is layered with butter, rolled and folded several times in succession, then rolled into a sheet, in a technique called laminating. Traditionally, the unbaked croissant was then curved into a crescent shape, though nowadays croissants are often left straight. Typical ingredients include wheat flour, water, milk, yeast, salt, sugar, butter and egg. . The process results in a layered, flaky texture, similar to a puff pastry.

Uncooked croissant dough can also be wrapped around any praline, almond paste or chocolate before it is, or sliced to include sweet or savoury fillings. It may be flavoured with dried fruit such as sultanas or raisins, or other fruits such as apples. In France and Spain, croissants are generally sold without filling and eaten without added butter, but sometimes with almond filling.

Faults in making laminated pastries

1. Uneven lift: Incorrect rolling technique, Fat too hard while rolling or uneven distribution of heat in the oven
2. Poor lift: Too many folds, pastry rolled very thin or less fat used
3. Excessive shrinkage of the pastry: Pastry not rested for sufficient time or after rolling, the stretched pastry is not lifted up and allowed to come back to normal
4. Baked product is very oily: Oven temperature is cold, Puff not sufficiently rolled, Too much fat, improper rolling or pastry was not rested between rolling
5. Dough tears while rolling: Weak flour used instead of strong flour or dough is over kneaded and the gluten has become elastic.

UNIT 3

Cookies and Biscuits

(10 marks)

Ingredients and their role in production of cookies

Types of cookie dough, method used in making (drop cookies, sheet cookies, pressed cookies, meringue cookies)

Examples of cookies made using different methods

Characteristics of a good cookie, fault identification

Though the term `cookie` and `Biscuits` are used interchangeably and generally substituted for each other there are opinions that tend to differentiate between the two items. The word `cookie` is derived from the word `Koekje` in North America. `Biscuit` on the other hand is supposed to be derived from the Latin word `panis biscotus`, which meant bread cooked twice.

For simplifying the classification, a cookie is a product that is soft centred, usually made in the style of preparing cake batter and is traditionally sweet. A biscuit on the other hand, is crisp and hard like a cheese cracker which can be savoury. Earlier these products were limited to leftover baked products only. With the development of different kinds of flours, sugar, and chemical and leavening agents, the production of biscuits and cookies got commercialized.

INGREDIENTS AND THEIR ROLE IN PRODUCTION OF COOKIES

Only the quality ingredients with correct method of processing will produce products of high standards. Hence care should be taken in choosing the ingredients for cookie production. The ultimate texture of cookies is established by balance of both toughening and tenderizing ingredients, with flour providing the basic framework.

FLOUR: To produce premium quality cookies, soft wheat flour is ideally suited. These are commonly termed as pastry flours and are usually unbleached containing 8-10% protein and less than 0.4% ash. Refined flour, whole wheat flour and rye flour etc. can also be used.

SUGAR: Wide range of granulated sugar is used for cookie production. Most bakers prefer finely granulated sugar for its rapid solution during dough mixing, even though coarse granulations yield cookies with a more tender texture and greater spread. Although powdered sugar dissolves more rapidly, it tends to decrease cookie spread and tenderness.

Bold crystal sugar may remain undissolved and hence may produce dark brown spots while baking. Large amounts of sugar in a cookie recipe will produce shortness mainly due to its action in dispersing the flour gluten. Sweeteners such as honey, brown sugar and molasses can be used.

SHORTENING: All types of shortenings available in the market are suitable for cookie production. However the point of main concern is the proper balance of shortening with other ingredients in the formula rather than specific kind of shortening. Butter, mainly due to its characteristic flavor, should be used in equal parts with the shortening. Shortening mellows gluten and thereby helps to spread cookie. Oil and margarine can also be used.

EGG: Any type of egg (fresh liquid or dried) can be used for making cookies. Egg yolk alone will produce a tender cookie rather than the whole egg, but care should be taken to supplement them with a little extra moisture from either water or milk or both, Egg yolk also contributes to the color.

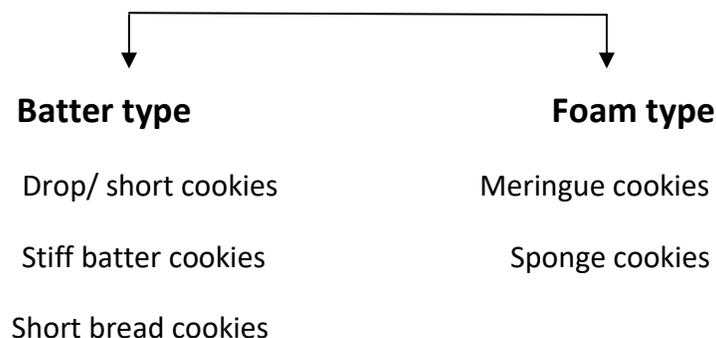
MILK SOLIDS: Milk solids (particularly non fat dry milk) contribute mainly shortness and controls cookie spread.

CHEMICAL LEAVENERS: The sodium and ammonium bicarbonate and other leaveners contribute aerated structure as well as increase the cookie spread.

OTHER INGREDIENTS: Spices like ginger powder, cloves, cinnamon, cardamom, caraway and anise, candied fruits, dried nuts and chocolates.

TYPES OR CLASSIFICATION OF COOKIES

According to mixing method



1) **BATTER TYPE:** They are similar to cakes in recipe except they have less liquid (i.e, egg, milk water etc.) This helps to mix the dough to a desired consistency to retain the required shape when deposited on baking sheets. In case of more liquid (i.e. batter similar to cakes) cookie may spread on sheet and cannot retain the desired shape. This type of cookies is again divided into three types.

DROP/ SHORT COOKIES: It has maximum moisture content among batter type cookies, and because of this, they require more eggs to give structure than the normal range of cookies in this class. The desirable finished product should be soft and moist and hence it should be stored or packed under such conditions that will keep them moist otherwise it becomes crumbly.

The cookie dough or batter is dropped with a spoon or even a piping bag. Dropping through a piping bag would give better control over shape and size which is the most important aspect of baking cookies.

When the cookie dough contains ingredients such as chocolate chips, candied fruits and nuts, it is advisable to use a spoon as these ingredients can get stuck in the nozzle of the piping bag. Space out the cookies appropriately to allow them to spread.

STIFF BATTER COOKIES: It contains less liquid as compared to drop cookies, hence it requires less eggs because of the lesser need for hard structure. These cookies are dried for a longer period during baking. Both these conditions help to produce crispness which is a desirable characteristic of the finished product. This crispness should be maintained and hence it should be stored and packed in such a condition that it would retain crispness quality.

SHORT BREAD COOKIES: They are similar to stiff batter cookies, except that they contain large amount of shortening. It provides them richer texture and high nutritional value. Use of butter (up to 50% of total fat) along with other shortening will impart desirable characteristic flavor to the product.

2) **FOAM TYPE:** These are made with large percentage of egg white, which provides them structure, as well as better leavening action. It can be divided into two types.

MERINGUE: In the preparation of meringue, egg whites are whipped with sugar to entrap air and provide body to hold the remaining ingredients (dessicated coconut, flour etc.) Care should be taken in blending the other ingredients so that the air should not be forced out of the mixture, eg. coconut macarons.

SPONGE COOKIES: These are made just like the sponge type cake except for a large quantity of flour. In this type of cookies, egg white and sugar are beaten up to stiff consistency followed by addition of flour.

OTHER TYPES OF COOKIES

PIPED COOKIES: As the name suggests these cookies are piped through a piping bag or a piping tube onto a baking tray. The dough for this cookie has to be of right consistency. If the dough is not thick, then it will be difficult to pipe through a bag and if it is too soft, then it will spread too much while baking. Designs can be given by choosing the kind of nozzle. The top of the cookie can be garnished with nuts, candied fruits, etc. before baking. One can pipe stars, rosettes or straight ridged lines through various kinds of nozzles.

EXAMPLES: Anisette cookies, butter cookies.

HAND-ROLLED COOKIES: These types of cookies are usually made with stiff dough such as sweet paste dough, short crust dough and salt dough. If the cookie dough is soft, then put it in the refrigerator to obtain stiffness. Hand-rolled cookies are shaped into rounds between the palms and then put on the baking tray. These can be pressed further with the help of a fork to add a design.

EXAMPLES: Melting moments, crescents.

CUTTER-CUT COOKIES: These cookies are made by rolling the dough to a desired thickness and then cutting it with cutters of required shape. These cookies are much more symmetric and look neat as they are cut with cutters. The choice of rolling or shaping with hands is purely the chef's choice as it affects the final texture and the look of the cookie. Some cookies containing raisins and candied fruits cannot be cut cutters as it becomes difficult to cut the cookie if the raisin comes in the way. In such cases, the dough is moulded in hands and baked.

EXAMPLES: Shrewsbury biscuit, nice biscuit.

BAR COOKIES: These type of cookies are shaped in bars or long ropes or pipes and then baked till half done. Then the cookies are sliced to the required thickness while the dough is still warm and placed again on the baking sheets and baked until crisp. This type of baking is also known as baking twice or biscotti in Italian.

EXAMPLES: Raisin spice bars, biscotti.

SHEET COOKIES: Many chef's confuse these cookies with the bar cookies. There are various methods of preparing this type of cookie. In some cases the dough is baked in sheets and cut later. While in some cases, they are lined on a tray and the topping is spread onto the base before being baked.

EXAMPLES: Almond bars, brownies.

MIXING OF COOKIE DOUGH

The particular mixing method employed for cookie dough depends on the ultimate nature of end product. However the general procedure for mixing cookie dough is to first cream the shortening with sugar, salt and flavouring. Then add the eggs and finally the flour. Fruits and nuts are added at the last stage of mixing. The leavening is added at different stages depending upon the type of leavening used.

Cookie dough should be mixed just enough to blend the ingredients homogeneously. If the dough is slightly over mixed, it tends to develop gluten which will retard the spread of cookies.

STRAIGHT METHOD / SINGLE STAGE METHOD: It is one of the simplest methods in which all the scaled ingredients are put in a bowl and mixed together until uniform dough or batter is obtained. This method is suitable for cookies that have no or very less moisture in the dough. However an advantage of this method is that it is difficult to regulate the over-mixing of ingredients which can result in chewy cookies and biscuits.

EXAMPLES: Short bread cookies, gingerbread cookies.

CREAMING METHOD: In this method the butter and sugar is creamed until fluffy. Liquid ingredients such as eggs, milk and cream are added all at once and then the flour is folded into the mixture. The consistency of the dough or batter can be regulated by regulating the moisture content in the mix.

EXAMPLES: Piped butter cookies, oat and raisin cookies.

SPONGE METHOD: This method of making cookies is similar to that of cakes. Eggs and sugar are whipped together until light and fluffy and dry ingredients are folded into the prepared batter.

EXAMPLES: Anise cookies, chocolate brownie cookies.

PANNING OF COOKIES

Cookies should be placed enough apart on the pans to avoid sticking during baking. This sticking produces ragged edges and excess breakage.

Most cookies improve in flavor due to caramelization of the sugar during baking, only if they are baked thin. If the cookie dough is cut too thick, it loses such flavor. If the lumps of sugar are left in the dough during mixing, the cookies will stick to the pan due to syrup which is formed during baking and will become hard and solidify on the pans.

When the pans are greased more, the cookies will spread more. To retard this, dust the pans with flour after they are greased.

Pans used for cookie should be cool because warm pans will melt the fat in the cookie resulting in inferior product. If cookie dough is made ahead of time and stored in a cool place, then the dough should be made a little softer as this will tighten up during storage. It has been experienced that such doughs can be handled more easily, giving the finished products more tenderness.

Make cookies of even size and shape, which will promote even baking and browning.

If raisins and currants are used for topping, they should be soaked in a malt solution before they are used. This will help them to prevent from getting burnt. Malt solution is prepared by dissolving 1 part of malt with 10 parts of water. Soak the fruit until slightly swollen and then drain thoroughly.

Egg wash will retard the spread of cookies due to the coagulation of egg. Hence it is a general rule to prepare egg wash by using 1 part of egg and 2 parts of milk.

BAKING

Baking temperature depends on the type of cookie, which may lie between 150-190 degrees centigrade. The actual temperature varies with the dough composition and the weight and shape of the dough pieces. Baking time also varies with the range of 8-12 minutes for average weight cookies, if the oven is too hot, the cookie will set immediately before it has an opportunity to spread. On the contrary, if the oven is too cool, the cookie will have too much spread, too much moisture loss due to longer baking period and also the loss of flavor. In order to obtain best baking results, cookies should be removed from the oven while they are still a little soft, as they will continue to bake on the hot pans. However if cookies are thoroughly baked in the oven itself, remove the cookies quickly from baking sheet to prevent continued cooking. Cool the cookie.

COOLING

Remove the cookies from the pan while they are still hot or they will stick to the pan. If the cookies are very soft, do not remove them from the pans until they are cool enough and firm enough to handle. Some cookies are soft when hot but become crisp when cool. Do not cool too rapidly or in drafts, because they will crack. Cool the cookies on the racks to prevent from soggy bottom. Cool completely before storing.

STORAGE OF COOKIES

Make sure cookies are completely cool before storing.

Store in air tight containers or sealed plastic bags this will prevent humidity from softening crisp cookies and air from drying soft cookies.

Never store soft and crisp cookies in the same container otherwise the crisp cookies will become soft.

If cookies require refrigeration, cover them tightly to prevent absorption of other odors.

Crisp cookies that have been softened can be made crisp again by heating in the oven for some time.

COMMON FAULTS IN COOKIES

Some cookies are designed to be crisp, yet some taste good only when they are crumbly. Some cookies require spread, whereas some cookies need to be baked only for a few minutes. Any deviation from the standard product is termed as fault.

Some of the common faults in cookie preparation are:-

1. COOKIES STICK TO THE PAN

It is important to grease the baking sheets

Certain cookies need to be taken off the baking sheet while they are hot. If they are left in the pan to cool for a long time, they may stick to the pan.

Too much sugar in the recipe can lead to sticking.

Improper mixing of the cookie dough or batter can lead to sticking.

Unclean pans.

Excessive egg content.

Too soft flour and too slack a batter.

Sugar lumps in the dough.

2. Too crumbly

Too much sugar in the recipe.

Improper mixing of the cookie dough or the batter.

Too much of fat or shortening.

Too much of leavening and eggs.

3. Cookie is hard and brittle

Too much flour in the dough.

Too less quantity of fat in the dough.

Dough mixed for too long will result in tough cookie as gluten may develop and it may lose its shortening quality.

There is less liquid,

Low baking temperature.

Too strong flour.

4. LACK OF COLOR

Baking temperature too low.

Sugar is not enough in the recipe

Excessive ammonium bicarbonate produces black spots in crumbs.

Excessive sodium bicarbonate produces dark or green colour.

5. LACK OF SPREAD

Baking temperature is high.

Too much flour in the dough or batter.

Less sugar in the recipe.

Insufficient greasing of pans.

Too hot oven.

Too fine granulation of sugar.

Excessive mixing.

6. COOKIE SPREADS TOO FAST

Low baking temperature.

Overgreased baking sheets.

No enough flour in the dough or batter.

Too much creaming of the dough.

Too much liquid in the recipe.

Excessive sugar.

7. LOSS OF FLAVOUR

Over baking

Fast baking.

Lack of moisture.

Improper storage.

Unit 4

CAKES

- Ingredients and their role in production of cakes
- Types of cake sponges, mixing methods and techniques (Creaming method, Whisked sponge, Egg separation method, Oil based cake sponge)
- Examples of cake sponges made using different methods (Pound cake, Swiss roll, Madeira cake, Chiffon cake)
- Characteristics of a good cake sponge, fault identification
- Icings and fillings used in cakes (butter icing, royal icing, whipped cream, fondant, gumpaste, marzipan, chocolate(glaze and fudge), praline)

A cake in commercial terminology refers to a cake made from flour, sugar, fat and eggs. A cake is usually heavier than a sponge. However cakes have a broader interpretation that includes gâteau (French) and torte (German). These are made of layers of sponge, Genoese sponge, meringue, creams and pastries. A cake generally takes its name from its main filling and the flavor such as lemon cream gateaux, pineapple gateaux, fresh strawberry gateaux, etc. The foundation of a good cake begins with its base. Thus every effort and care needs to be taken in preparing a good base as decorating poor quality bases in an attempt to make them look better could prove counter productive.

Ingredients and their role in production of cakes.

The main ingredients required to prepare cakes are eggs, sugar, flour, fat, baking powder and emulsifiers.

1. Eggs.

When using eggs in cake preparation one should warm the eggs either by placing the eggs in hot water or by warming them along with the weighed sugar with a gentle heat over a bain-marie. The reason for doing this is to produce strong whisked foam which has the stability to withstand the additional mixing of other ingredients. If the foam loses its incorporate air, the result will be a heavier cake. Warming the eggs will also prevent the curdling of mixtures when fat, sugar and eggs are creamed together. Eggs can be separated and the whites whisked separately to increase the lightness of the cake.

2. Sugar.

When preparing a sponge batter, castor sugar is used because it readily dissolves in the batter. In bakery products, sugar is recrystallized as water is removed during baking, resulting in a crisp texture. This crispness is increased by the effects of browning. Two

different reactions are responsible for crust browning .i .e caramelization and maillard reaction.

Caramelization results from the melting of sugars to create a deep brown colour and new flavours. The maillard reaction takes place when reducing sugars and proteins are heated together.

3. Flour.

All cakes of a light nature need a weaker soft flour (one with low gluten) to obtain a more crumbly result. If this type of flour is not available all purpose flour can be used with the addition of some cornflour to make it softer. Usually 20% of the cornflour or cocoa flour is replaced with the cornflour or cocoa powder.

4. Baking Powder.

This is used to aerate the cake. Make sure that it is weighed correctly and sieved several times with the flour to ensure that the cake is not over or under aerated and the distribution is even throughout. Cake mixtures should be cooked immediately or the gases emitted from the baking powder will start to develop and break out of the batter.

5. Fat.

The use of butter is recommended for creaming, butter should be soft not oily and the amount of fat that is added to a sponge batter will determine its texture. More the fat heavier will be the sponge.

6. Emulsion.

Commercially prepared stabilizers are used in sponge batters to help keep the batter from breaking down, thus forming a perfect, light emulsion. It is available in powder forms or even gel forms. These types of cake batters have a different recipe as it involves putting everything together into a mixing bowl along with warm water and whisking the entire thing to a stable emulsion, which can be held for a long duration of time.

7. Flavouring Ingredients.

Many other types of ingredients can be added to the sponge mixes, depending upon the usage that the sponge will be put to for eg. if the sponge is being made for chocolate cake then it is advisable to substitute 20% of the flour with cocoa powder to give a dark rich chocolate flavoured sponge for a coffee flavoured cake, a paste of coffee with water can be used for honey and almond cake one could use flaked almonds and honey and so on.

TYPES OF CAKE SPONGES, MIXING METHODS AND TECHNIQUES.

1. Creaming Method.

Creaming is a method of mixing foods with high fat content in order to incorporate air and make the mixture lighter. Mixing may be either mechanical or manual. There are three attachments of dough mixers. Balloon whisk flat paddle and dough hook. The creaming is always done using a flat paddle. Creaming refers to beating the butter and sugar together to incorporate air and to make it light and fluffy. The type of sugar used will be eventually used for icing cakes one would use icing sugar and the icing used for sponge will have castor sugar.

Certain factors which need to be kept in mind while creaming are as follows.

- Care should be taken while choosing the equipment for creaming one should always use stainless steel as using aluminum deteriorates the colour of the butter and sugar making it grey.
- Take care not to over cream as the final product might not be able to hold the volume resulting in the collapse of a cake.
- Fats used must be soft and not oily.
- Use a bowl large enough for rapid movement of the paddle as creaming is always done at high speed.

2. Whisking method:

Whisking is a method which is very much like creaming. It uses fast movement to incorporate a maximum of air into liquid ingredients, achieving foam like creaming whisking can also be done mechanically or manually in a suitable bowl. Once the mixture has started to foam whisking needs to be continuous until the desired stage has been reached. Usually this stage is referred to as ' Ribbon Stage' as the emulsion when lifted and dropped falls like ribbons. Most of the basic sponges are made by this method. When whisking egg whites, make sure there is no egg yolk present, since yolks contain fat and the presence of fat hinders the formation of meringue. The equipment used must also be fat free. Egg whites at room temperature will whisk to a foam quicker and produce a greater volume than those straight from the refrigerator. If an acid such as lemon juice is added, it will help stabilize the foam. Egg white foam starts to break down when it is whisked fast the medium firm peak stage. If it is whisked too much and then used in cooking for eg. to make poached meringue quenelles the whole structure will collapse because the bubbles have expanded too much for best results when whisking dairy cream, use old cream from the refrigerator and a cold bowl.

3. Rubbing In.

The rubbing in method is generally used for making short or sweet pastry. The product containing fat and flour is said to be short when it snaps off or crumbles when pressed. First, cut the fat into small pieces. Then, using your fingertips rub the pieces of fat into the flour, all the time lifting the ingredients and allowing them to fall back into the bowl. The fat will reduce to small particles of the size of breadcrumbs, each with its own coating of flour.

The purpose of rubbing in is to make a lighter paster. During baking, the moisture from the fat becomes steam, which makes the pastry expand. For best results, all the ingredients should be cold, with liquid ingredients added in all at once to the flour and fat mixture. Do not over mix, as this will toughen the pastry, mix just enough to bind all the ingredients. Cover and rest the pastry in the refrigerator before you use it.

-3-

The other method to make a short pastry is to cut the butter into 1cm dices and mix with flour. Now roll both the things with a rolling pin until the butter forms flakes. Now combine the dough very lightly and add required amount of cold water to form into light dough. Over kneading will result in stretchy dough, which will hamper the shortening effect of the flour.

Rubbing in is done for the following reasons.

- Fat and flour are rubbed together.
- The aim is to reduce the fat to breadcrumb size particles.
- The fat particles melt during baking, giving off steam which makes the pastry expand and rise.

4. Folding In.

This is a method of combining other ingredients into the aerated mixture so that there is little reduction in lightness or volume. This is achieved by turning the mixture over gently, using a large spoon or the hand while adding the other ingredients gradually. The mixture must be lifted and folded over gently. Make sure you reach to over mix the mixture. This is also known as cutting and folding method. When folding in mixtures with different consistencies

(for eg. adding whisked egg white to a cake batter), soften the heavier mixture first by adding a portion of the softer mixture then fold in the rest of the soft mixture. Dry ingredients should always be sieved and added gradually, ensuring they are dispersed evenly throughout the mixture. This technique is very crucial to basic fatless sponge.

Certain factors to be kept in mind while folding in are as follows.

- Dry ingredients are added to added to a creamed or whisked mixture.
- The ingredients should be added and turned gently with open hands and fingers so as to disturb the air bubbles as little as possible.
- One can always fold while another person can help him/her to add the sifted dry ingredients in a continuous flow.
- Proficient chefs can also mix in the dough mixer itself, but just keep in mind that the machine is on the lowest speed possible and the batter should not over mix.

EXAMPLES OF CAKE SPONGE.

Different types of sponges are made by using various principles. Each sponge is used for a different purpose. A plain vanilla sponge can be used for making fruit based cakes, such as pineapple, mango, kiwi, etc. whereas chocolate sponge can be used for making chocolate cakes. Sponge can also be used as bases for mousse cakes and pastries or simple crumbled and mixed with fruits such as apples to mak apple pie.

1. Pound Cake / Madeira.

This is also known as English cake or Madeira sponge or tea cake. It is known as pound cake because it contains a pound (454gm) of butter, flour, sugar and eggs. This cake is made by creaming butter with sugar until light and fluffy. Eggs are added one by one taking care that the mixture does not curdle. Lastly, the flour is folded in with hands. Sometimes a small amount of baking powder is added for aeration. This cake can be flavoured with various kinds of ingredients such as citrus fruit zest and juices. They can also be flavoured with artificial flavours and colours. Candied fruits can also be mixed along with a batter to prepare dry fruit cakes. This cake is usually served sliced for afternoon tea and high tea.

2. Swiss Roll.

This is a very light and airy sponge made by whipped yolks and egg whites separately with sugar and then folding them together, along with flour and powdered nut flour such as almond and hazelnut. Swiss roll sponge can be made according to the cake or pastry that it would be required for. A lemon swiss roll would be made using a sponge that is flavoured with lemon zest and is of a light lemon colour.

3. Chiffon Cake.

Chiffon cake is a very light and airy sponge that has characteristics of both butter cake and a sponge. Its texture of a sponge makes it much desirable to a sweet tooth. Though unlike butter cakes, chiffon cakes use oil and whipped egg whites are used to provide the aeration along with baking powder that gives it a sponge based texture. It is fairly quick to make this cake, as a batter is made combining oil, raising agent and flour and whipped egg whites are folded in.

4. Victoria Sponge.

Victoria sponge is named after Queen Victoria who popularized this cake in her afternoon teas. Unlike basic sponge, this sponge is made by creaming method and is usually sandwiched with jam and whipped cream. The top is not iced and can be dusted with icing sugar.

POINTS TO BE KEPT IN MIND WHILE MAKING SPONGE AND CAKES.

The following points should be kept in mind while making sponges and cakes.

1. Weigh and measure ingredients correctly.
2. Sieve flour to aerate and remove impurities.
3. If using baking or cocoa powder, sieve it several times with the flour to ensure even distribution.
4. Tins, frames, hoops and baking trays should be properly cleaned and prepared. The paper that is used as a liner should be free from creases.
5. Dried fruit should be washed and well drained. The purpose of doing this is not only for hygienic reasons but to increase the moisture content in the dried fruits, giving the cake a moist quality. Another way of achieving this is to macerate the dried fruits in spirits or liquors.
6. Remember to get the entire necessary equipment ready before starting to prepare the cake. Whisked mixtures will collapse if left too long before baking.
7. Cakes that are large or heavy require longer baking time at lower temperatures. Smaller or low density cakes require shorter baking time at higher temperature.
8. To prevent cakes from over colouring on the top during the baking process, place them under a grease proof paper and reduce the top heat.
9. To check for doneness in small cakes and sponges, press lightly on the surface. The impression made should spring back immediately. For heavy fruit cakes, insert a clean skewer on withdrawal, it should not have any moist mixture clinging to it.
10. Allow cakes to stand in the moulds they were baked in for a few minutes prior to removal.

11. Cakes are turned upside down on cooling racks and allowed to cool. Castor or icing sugar or cornflour is sprinkled on the grease proof or parchment paper to prevent the cake from sticking. Sponge cakes may be cooled in the mould turned upside down. This will give the cake a flat top and also prevent drying out.
12. Do not remove the paper that was used to line the cake until you are ready to use it. This will prevent the cake from drying out.
13. Cover cakes properly for storage either in the refrigerator, freezer or a dry and cool place, depending on the cake and your personal needs.
14. In the case of frozen decorated cakes it is advisable to cut and portion the cakes while they are still frozen.

ICINGS AND FILLINGS USED IN CAKES.

1. Butter Icing.

Butter icing (also known as butter cream and mock cream) is a type of icing or filling used inside cakes as a coating and as decoration. In its simplest form, it is made by creaming butter with powdered sugar, although other fats can be used, such as margarine or lard. Colourings and flavourings are often added. Butter icing is a common topping for cupcakes, sponge cakes, butter cakes and other desserts.

2. Royal Icing.

Royal icing is prepared by beating egg whites and icing sugar until a thick paste is obtained. The icing should only be beaten with a flat paddle and never whipped. The amount of icing sugar used will guide the consistency of the icing. Royal icing has a unique property of setting to a brittle consistency and this is used by chefs to the best of its ability. Royal icing is used for decorating wedding cakes and piping icing to make lace structure. It is also used as a glue to stick decoration to the cake. Thus royal icing finds many uses in the pastry kitchen. Since this icing is very sweet in nature, it is mostly used for decoration only.

3. Whipped Cream.

Whipped cream is cream that is whipped by a whisk or mixer until it is light and fluffy. Whipped cream is often sweetened and sometimes flavoured with vanilla in which case it may be called Chantilly cream. Crème Chantilly is another name for whipped cream. The difference between whipped cream and crème Chantilly is Chantilly being sweetened and whipped cream not.

4. Fondant.

Fondant is a sugar based icing that is mostly used on festive and wedding cakes. This icing requires lot of skill and art to be prepared in the kitchen, therefore it is normally purchased readymade from the market. The consistency of this icing is such that it can be rolled and then used for covering cakes or pastries. The consistency can be regulated by warming the icing over the double boiler to make it viscous. It can then be used for dripping petit four, pastries such as éclairs and also as a topping for napoleon and Danish pastries. After setting in this manner it becomes smooth, shiny and non- sticky.

Fondant is prepared by heating sugar and water until it reaches 105 °C. Then liquid glucose or acids, such as cream of tartar are added and the syrup is cool down until it reaches 45 °C. The sugar is then folded and kneaded until soft dough is obtained. This dough can be rolled and used for covering cakes.

5. Gumpaste.

Sugar paste icing is a very sweet edible sugar dough usually made from sucrose and glucose. It is sometimes referred to as sugar gum or gum paste. It can be used to cover cakes, to mold features and create decorations for cakes and many other uses. Sugar paste will harden out completely, so it is ideal for creating the bigger cake decorations which stand up on a cake or for the bigger flowers. One of the biggest advantage of the commercial varieties is that they can usually be stored for longer period of time. Depending on how fresh the product is, it can be stored for up to a year.

6. Marzipan.

Marzipan is a paste composed of ground almonds and sugar mixed in varying proportions. Better quality marzipan has more almonds and less artificial flavouring. It is commercially made as it has better taste and texture if made that way. The homemade marzipan are rarely of the constituency and texture as that of the commercially available ones.

Marzipan is mainly used as covering for wedding cakes and any other rich cakes. It is widely used to make flowers, fruits and figures as doughlike texture allows the dough like texture allows the chef to mould it into various forms and figures.

7. Chocolate.

Chocolate can be used in many ways, they can be piped in different designs directly into silicon or grease proof paper to make decorative chocolate filigree.

Some chocolates may need to be thickened for piping purposes. Chocolate can also be used to cover a cake. For that a chocolate needs to be mixed with dairy cream that has been brought to boil and allowed to set to form paste. This product is called truffle. A cheaper variety can be made by using a mixture of cream and milk or by using milk alone. The consistency of truffle may be adjusted by decreasing or increasing the proportion of chocolate.

- Glaze.

A glaze in cooking is a coating of a glossy often sweet sometimes savoury substance applied to food typically by dipping, dripping or with a brush. Egg whites and basic icing are both used as glazer.

They often incorporate butter sugar milk and certain oils. For eg: doughnut glaze is made from a simple mixture of powdered or confectioners sugar and water that the doughnuts are dipped in or some pastry doughs have a brushed on coating of egg whites. Glazes can also be made from fruit or fruit juice along with other ingredients and are often applied to pastries.

- Fudge.

Fudge is a type of confectionery which is made by mixing sugar butter and milk, heating it to the soft ball stage at 240f and then beating the mixture while it cools so that it acquires a smooth, creamy consistency. Fruits nuts caramel candies and other flavors are some time added either inside or on top. The fudge is not the creamy, smooth kind. It has a dense textured and it is smooth kind it has a dense textured and it is smooth versions often made with heavy cream or condensed milk.

- Praline gateaux

Praline is a French gateau praline is made by heating nuts and sugar until caramelized. The mixture is then poured on to a marble slab and left to cool. It is then crushed coarsely and stored until further use.

UNIT 5

International Cakes (5 marks)

- Components of international cakes: Black forest, Dutch truffle, Cream cakes, Cheesecake, Chocolate mud cake, Opera cake, Pineapple upside down, Pavlova, Napoleon gateau, Yule log, Brownies, Christmas fruit cake, Plum pudding, Charlotte Russe, Tiramisu.

Cakes are broadly divided into several categories, based primarily on ingredients and mixing techniques.

Butter cakes are made from creamed butter, sugar, eggs, and flour. They rely on the combination of butter and sugar beaten for an extended time to incorporate air into the batter. classic pound cake is made with a pound each of butter, sugar, eggs, and flour. Baking powder is in many butter cakes, such as Victoria sponge. The ingredients are sometimes mixed without creaming the butter, using recipes for simple and quick cakes.

Sponge cakes (or foam cakes) are made from whipped eggs, sugar, and flour. They rely primarily on trapped air in a protein matrix (generally of beaten eggs) to provide leavening, sometimes with a bit of baking powder or other chemical leaven added as insurance. Sponge cakes are thought to be the oldest cakes made without yeast. An angel food cake is a white sponge cake that uses only the whites of the eggs and is traditionally baked in a tube pan. The French G enoise is a sponge cake that includes clarified butter. Highly decorated sponge cakes with lavish toppings are sometimes called gateau; the French word for cake.

Chiffon cakes are sponge cakes with vegetable oil, which adds moistness.

Chocolate cakes are butter cakes, sponge cakes, or other cakes flavored with melted chocolate or cocoa powder. German chocolate cake is a variety of chocolate cake. Fudge cakes are chocolate cakes that contains fudge.

Coffee cake is generally thought of as a cake to serve with coffee or tea at breakfast or at a coffee break. Some types use yeast as a leavening agent while others use baking soda and/or baking powder. These cakes often have a crumb topping called streusel and/or a light glaze drizzle.

Baked flourless cakes include baked cheesecakes and flourless chocolate cakes. Cheesecakes, despite their name, aren't really cakes at all. Cheesecakes are in fact custard pies, with a filling made mostly of some form of cheese (often cream cheese, mascarpone, ricotta, or the like), and have very little flour added, although a flour-based or graham cracker crust may be used. Cheesecakes are also very old, with evidence of honey-sweetened cakes dating back to ancient Greece.

Butter or oil layer cakes include most of the traditional cakes used as birthday cakes, etc., and those sold as packaged cakes. Baking powder or bicarbonate of soda are used to provide both

lift and a moist texture. Many flavorings and ingredients may be added; examples include devil's food cake, carrot cake, and banana bread.

Yeast cakes are the oldest and are very similar to yeast breads. Such cakes are often very traditional in form, and include such pastries as babka and stollen.

Below are some of the International Cakes that are served in Hotels and major Cake shops

BLACK FOREST CAKE

Black Forest gâteau consists of several layers of chocolate sponge cake sandwiched with whipped cream and cherries. It is decorated with additional whipped cream, maraschino cherries, and chocolate shavings. In some European traditions, sour cherries are used both between the layers and for decorating the top. Traditionally, kirschwasser, a clear spirit made from sour cherries, is added to the cake. Other spirits are sometimes used, such as rum, which is common in Austrian recipes. In India, Black Forest cake is generally prepared without alcohol. True Black Forest gâteaux are decorated with black cherries.

DUTCH TRUFFLE

An edible masterpiece of chocolate, with a subtle orange flavor, this cake is the perfect finale to a very special dinner. Layers of darkchocolate cake alternate with whipped ganache, then it is coated with a shiny glaze.

CREAM CAKE

This is a rich, moist white cake with great flavor, perfect for decorating. Heavy cream is used instead of butter. Variations to this would be Sour Cream cake, whipped cream cake. Strawberries make a wonderful garnish.

CHEESE CAKE

Cheesecake is a sweet dessert consisting of one or more layers. The main, and thickest layer, consists of a mixture of soft, fresh cheese (typically cream cheese or ricotta), eggs, and sugar; if there is a bottom layer it often consists of a crust or base made from crushed cookies (or digestive biscuits), graham crackers, pastry, or sponge cake. It may be baked or unbaked (usually refrigerated). Cheesecake is usually sweetened with sugar and may be flavored or topped with fruit, whipped cream, nuts, cookies, fruit sauce, and/or chocolate syrup. Cheesecake can be prepared in many flavors, such as strawberry, pumpkin, key lime, chocolate, Oreo, chestnut, or toffee.

MUD CAKE

It is also referred to as Mississippi mud slice. The baked cake crumbs look like sand along the Mississippi river. The cake is usually layered with dark chocolate fudge. The sides are also finished with fudge. The cake is garnished with dusted cocoa powder and chocolate garnishes.

OPERA CAKE

Opera cake is a French type of cake. It is made with layers of almond sponge cake soaked in coffee syrup, layered with ganache and coffee (or Grand Marnier) buttercream, and covered in a chocolate glaze.

According to Larousse Gastronomique, "Opéra gâteau is an elaborate almond sponge cake with a coffee and chocolate filling and icing."

PINEAPPLE UPSIDE DOWN

An upside-down cake is a cake that is baked in a single pan, then turned over and served upside-down. Usually chopped fruits—such as apples, pineapples, or cherries—and a butter and sugar topping are placed on the bottom of the pan before the batter is poured in, so that they form a decorative topping once the cake is inverted.

PAVLOVA

Pavlova is a meringue-based dessert named after the Russian ballerina Anna Pavlova. It is a meringue dessert with a crisp crust and soft, light inside, usually topped with fruit and, optionally, whipped cream. The dessert is a popular dish and an important part of the national cuisine of both Australia and New Zealand, and with its simple recipe, is frequently served during celebratory and holiday meals

NAPOLEAN GATEAU

It is a French Classical Cake made with baked puff pastry also known as a mille-feuille that literally translates to thousand layers. It is made up of three layers of puff pastry, alternating with two layers of pastry cream but sometimes whipped cream or jam are substituted. The top pastry layer is dusted with confectioner's sugar, and sometimes cocoa, pastry crumbs, or pulverized seeds (e.g. roasted almonds)

YULE LOG

A Yule log is a traditional dessert served near Christmas, especially in Belgium, France, Quebec and several former French colonies. Made of sponge cake to resemble a miniature actual Yule log, it is a form of sweet roulade. Yule logs are often served with one end cut off and set atop the cake, or protruding from its side to resemble a chopped off branch. A bark-like texture is often produced by dragging a fork through the icing, and powdered sugar sprinkled to resemble snow.

WALNUT BROWNIE

The Walnut brownie is a flat dark chocolate cake somewhat between a cake and a cookie. It is often eaten with tea and can be paired with vanilla ice cream and hot chocolate sauce also. This cake can be served warm, dusted with icing sugar. It can be covered with chocolate fudge also.

CHRISTMAS FRUIT CAKE

This rich dark and moist cake is composed of candied fruits, nuts and macerated in alcohol. It originated in Scotland. The cake is not layered but served as whole. It is decorated with Royal Icing to resemble snow and Christmas decorations are placed on top.

PLUM PUDDING

It is a type of pudding traditionally served as part of the Christmas dinner in Britain, Ireland and in some other countries where it has been brought by British emigrants. Despite the name "plum pudding," the pudding contains no actual plums due to the pre-Victorian use of the word "plums" as a term for raisins. The pudding is composed of many dried fruits held together by egg and suet, sometimes moistened by treacle or molasses and flavoured with cinnamon, nutmeg, cloves, ginger, and other spices. The pudding is aged for a month, months, or even a year; the high alcohol content of the pudding prevents it from spoiling during this time.

CHARLOTTE RUSSE

This cake was made by French Chef Marie Antoine Careme who named it in honour of his Russian employer. It is a cold dessert of Bavarian cream set in a half sphere mold lined with sponge fingers that are soaked in rum flavoured sugar syrup.

TIRAMISU

Tiramisu meaning "pick me up", is a popular coffee-flavoured Italian dessert. It is made of sponge dipped in coffee, layered with a whipped mixture of eggs, sugar, and mascarpone cheese, flavoured with cocoa. The recipe has been adapted into many varieties of cakes and other desserts.

COLD & FROZEN DESSERTS (5 marks)

- Types of Cold Desserts: Bavarians, Chiffons, Mousses and Soufflés.
- Types of Frozen Desserts
- Sherbet – Types
- Ice Creams - Types

Cold Desserts

The preparation of cold desserts have one thing in common: they all have a light, fluffy or puffed texture, which is created by the addition of whipped cream, beaten egg whites or both.

These products are made from custard sauce, pastry cream, starch thickened fruit fillings, meringues and gelatine all combined in different ways to make Bavarians, Chiffons, Mousses and Soufflés.

Bavarians

A Bavarian, also known as a Bavaroise or Bavarian cream, is made of three basic elements: custard sauce, gelatine and whipped cream. Gelatine is melted down and stirred into hot custard sauce. It is then chilled until almost set and then whipped cream is folded in. The mixture is poured into a mould and chilled until set. It is then de-moulded for service.

Chiffons

Chiffons are most popular as filling for chiffon pies, but they may also be served more simply as puddings and chilled desserts. The main difference between chiffons and Bavarians is the use of beaten egg whites in place of or in addition to whipped cream. Thus, chiffons consist of a base (custard sauce), gelatine and beaten egg whites. The percentage of whipped cream, if used, is much lower than that of egg whites. The bases used for chiffons include the following three main types

- Thickened with starch: Finely chopped fruit or fruit purées are cooked and mixed with starch to thicken them.
- Thickened with egg: Custard sauce or crème anglaise.
- Thickened with egg and starch: Pastry cream.

Mousses

Mousses can be defined as a soft creamy dessert that is made light and fluffy by the addition of whipped cream or beaten egg whites or both. There are different kinds of bases for mousses and can be anything from mere melted chocolate or fruit purées to bases that are similar to those of chiffons. The percentage of whipped cream, folded in, is greater than that of egg whites

When folding in the whipped cream or beaten egg whites or both, as the case may be, the whites are folded in first. The reason being that if the cream were folded in first there are more chances of it curdling due to over mixing. If egg whites are folded into a hot base, they will coagulate or cook and the mousse will be more firm and stable. Whipped cream should never be folded into hot mixture as it will melt and deflate.

Dessert Soufflés

Originally, soufflés are hot items. They are lightened with beaten egg whites and then baked which causes the soufflé to rise like a cake because the air in the egg foam expands when heated. The structure of a soufflé can be described as follows:

- Base: Many kinds of bases can be used for dessert soufflés, but most of them are heavy starch thickened preparations such as pastry creams or sweetened white sauces.
- Egg Yolks: When used, these are added to the base.
- Egg Whites: Whenever possible, egg whites should be whipped with some sugar. This makes it more stable.
- Baking: Soufflés, once the beaten whites are added, have to be baked immediately and served immediately or they will deflate.

Iced Soufflés are made either of a simple ice cream or, more frequently, of alternate layers of mousse and either ice cream, parfait or bombe mixture, variously flavoured and coloured. These layers may be separated by layers of sponge cake soaked in liqueur, thick sweetened fruit purée, fruit in syrup, crystallised (candied) fruits, etc. The mixture is placed in a soufflé mould or a timbale whose height is increased by a band of paper. After freezing, the paper is removed so that the soufflé rises above the level of the mould, like a baked soufflé. The top is often decorated with Chantilly cream, coffee beans in liqueur or any other sugar decoration. These soufflés are also made in ramekins. Iced soufflés are usually served with champagne or a dessert wine.

Chilled soufflés can also be made in this way, but dissolved gelatine is incorporated in the mixture. The soufflé is then placed in the refrigerator to set rather than frozen.

Frozen Desserts

Ice is a general term used in culinary preparation to identify the group of frozen desserts that includes *sherbets* and *ice creams*.

Sherbet

The basic mixture for all sherbets is the combination of sugar syrup and fruit juice or fruit juice alone. It is the lower fat content and higher acidity level that distinguishes the sherbet from the ice creams. Commercially produced sherbets also contain mild solids, but not milk fat. Sherbets (also known as Sorbets) and granites make a suitable light dessert although they are used mostly as a refresher in formal dinners.

Sherbet Types

1) Granite

Granite, also termed granita and ice, is the simplest form of sherbet. It is made with fruit juice, champagne or wine with very little sugar added. It has a somewhat tart, but highly refreshing taste. The low sugar content as well as the freezing method (frozen without agitation) allows the formation of larger ice crystals.

2) Sherbet (Sorbet)

Sorbets are based on fruit juices, as in the granite, or in some cases fruit purées. The refined texture of the sorbet is a product of the egg whites, a component in most recipes. Egg whites inhibit the formation of very large ice crystals. On occasion an element of cream may be added to the sorbet mixture. This creates a variation in texture and flavour. The addition of cream also adds fat to the product.

3) Spoom (Spuma)

Spoom differ from sherbets primarily in the amount of egg whites in the mix. A spoom contains approx. twice the egg whites found in a sorbet. Also the egg whites, in the form of meringue, are usually folded in after the mixture has been partially frozen. This yields a very light, refreshing and always soft consistency. Although they can be made with fruit juices, spoom are most often made using a wine such as champagne, sauterne or muscat.

4) Punches

Punches are sorbets made using a dry white wine and citrus juice. Rum or a similar mixture is mixed just prior to service.

Ice Cream

Ice creams, by nature of their mixture, are richer than sherbets. This is due to the presence of fat in the basic mixture. The FDA requires that any product sold as ice cream must contain a

minimum of 10% milk fat/ butter fat. The outstanding factor that distinguishes ice creams from sherbets is the relative richness and fine creamy smooth texture of the product. While sherbets are based primarily on fruit juices, ice creams are based on creams and custards that are flavoured with fruit or other flavourings. In addition, ice creams and frozen custards contain saturated fats, while sherbets, if containing any fat, generally contain unsaturated fats.

Ice Cream Types

1) Regular Ice Cream

Regular ice cream is churned during freezing. The churning of ice cream as it freezes is one of the reasons it develops a smooth creamy texture. As the mixture freeze, the constant mixing action keeps the forming ice crystals small. *Sundaes* are desserts made with one or more scoops of different flavoured regular ice cream and are accompanied by a sauce. They can be garnished with a wide variety of fruits, candies and nuts. Other desserts made with regular ice cream include *Baked Alaska* and *Profiteroles*.

2) Lightened Ice Cream

Lightened ice cream is *still* frozen ice cream. *Still* frozen means that the mixture is not churned during freezing.

3) Bombe

Bombe, ice bombe, is potentially the most dramatic of frozen desserts. Different flavours of lightened ice cream are layered into the bombe mould. The mould is often in the shape of a hemisphere. When completed, the bombe is turned out of the mould and decorated with whipped cream, small meringues, wafer cookies or chocolate.

4) Parfait and Frozen Soufflés

The soufflé mixture is most often based on a whipped egg yolk and sugar syrup foundation that is flavoured and then lightened with whipped cream. In Europe parfaits are moulded in oblong or rectangular terrine moulds and are sliced and served accompanied by a sauce and garnish. In America parfaits are often served as lightened or regular ice cream in tall narrow glasses, layered with various fruits, sauces or liqueurs and topped with whipped cream. Frozen Soufflés are filled in moulds to which a band of paper is wrapped around the rim, to allow the mould to be filled above its top. When the paper is removed, the frozen soufflé resembles its hot counterpart.

5) Frozen Mousse

This can be made from either a *crème anglaise* base or from a syrup. The mixtures are whipped to a frothy state after being assembled. It is then still frozen.