

1. What is whisky? Explain what is scotch whisky?

ANS:-

Whisky or whiskey is a type of distilled alcoholic beverage made from fermented grain mash. Various grains (which may be malted) are used for different varieties, including barley, corn (maize), rye, and wheat. Whisky is typically aged in wooden casks, generally made of charred white oak.

SCOTCH WHISKY - "THE WATER OF LIFE"

THE MAKING OF MALT WHISKY

The origins of malt whisky distilling in Scotland are lost in the mists of antiquity. They date back at least to the monks of the 15th century and probably long before.

Although the distillers' art has been understood since earliest times, the subtle aromas and flavours of whisky have never been fully explained, even today. The ancient term uisge beatha, which is Gaelic for the Latin aqua vitae or 'water of life', was corrupted in the 18th century to usky, and then to whisky. The following description is a generalisation of the process.

It should be remembered that each distillery has its own unique specifications.

1. Malting

Best quality barley is first steeped in water and then spread out on malting floors to germinate. It is turned regularly to prevent the build up of heat. Traditionally, this was done by tossing the barley into the air with wooden shovels in a malt barn adjacent to the kiln.

During this process enzymes are activated which convert the starch into sugar when mashing takes place. After 6 to 7 days of germination the barley, now called green malt, goes to the kiln for drying. This halts the germination. The heat is kept below 70°C so that the enzymes are not destroyed. Peat may be added to the fire to impart flavour from the smoke.

2. Mashing

The dried malt is ground into a coarse flour or grist, which is mixed with hot water in the mash tun. The water is added in 3 stages and gets hotter at each stage, starting around 67°C and rising to almost boiling point.

The quality of the pure Scottish water is important. The mash is stirred, helping to convert the starches to sugar. After mashing, the sweet sugary liquid is known as wort. The spent grains - the draff - are processed into cattle feed.

3. Fermentation

The wort is cooled to 20°C and pumped into washbacks, where yeast is added and fermentation begins. The living yeast feeds on the sugars, producing alcohol and small quantities of other compounds known as congeners, which contribute to the flavour of the whisky. Carbon dioxide is also produced and the wash froths violently. Revolving switchers cut the head to prevent it overflowing. After about 2 days the fermentation dies down and the wash contains 6-8% alcohol by volume.

4. Pot Stills

In some mysterious way the shape of the pot still affects the character of the individual malt whisky, and each distillery keeps its stills exactly the same over the years.

In distillation, the still is heated to just below the boiling point of water and the alcohol and other compounds vaporise and pass over the neck of the still into either a condenser or a worm - a large copper coil immersed in cold running water where the vapour is condensed into a liquid.

5. Distillation

The wash is distilled twice - first in the wash still, to separate the alcohol from the water, yeast and residue called pot ale - the solids of which are also saved for use in animal feeds.

The distillate from the wash still, known as low wines, and containing about 20% alcohol by volume, then goes to the spirit still for the second distillation. The more volatile compounds which distil off first - the foreshots, and the final runnings called feints where more oily compounds are vaporised, are both channelled off to be redistilled when mixed with the low wines in the next batch.

Only the pure centre cut, or heart of the run, which is about 68% alcohol by volume is collected in the spirit receiver.

6. Spirit Safe

All the distillates pass through the spirit safe - whose locks were traditionally controlled by the Customs & Excise. The stillman uses all his years of experience to test and judge the various distillates without being able to come into physical contact with the spirit.

The newly distilled, colourless, fiery spirit reduced to maturing strength, 63% alcohol by volume, is filled into oak casks which may have previously contained Scotch whisky, bourbon or sherry, and the maturation process begins.

THE MAKING OF GRAIN WHISKY

1. Scotch grain whisky is usually made from 10-20% malted barley and then other unmalted cereals such as maize or wheat. The starch in the non-malted cereals is released by pre-cooking and converted into fermentable sugars. The mashing and fermentation processes are similar to those used for malt whisky.

2. The wash is distilled in a continuous or Coffey still, named after its inventor Aeneas Coffey. It has two tall columns - a rectifier and an analyser. Cold wash is pumped in at the top of the rectifier and meets steam. The columns in fact act like a heat exchanger. The alcohol is cooled, condenses and flows away as Scotch grain spirit at about 94% alcohol by volume.

3. The distilled grain spirit is lighter in character and aroma than most malt whiskies and therefore requires rather less time to mature. The bulk of matured grain whisky is used for blending.

THE MATURATION PROCESS

While maturing, the whisky becomes smoother, gains flavour, and draws its golden colour from the cask. A proportion of the higher alcohols turn into esters and other complex compounds which subtly enhance each whisky's distinctive characteristics.

By law all Scotch whisky must be matured for at least 3 years, but most single malts lie in the wood for 8, 10, 12, 15 years or longer. Customs & Excise allow for a maximum of 2% of the whisky to evaporate from the cask each year - the Angels' Share. Unlike wine, whisky does not mature further once it is in the bottle.

THE ART OF BLENDING

While the distinctive single malts produced by individual distilleries are becoming increasingly popular, blending creates over 90% of the Scotch whisky enjoyed throughout the world.

By nosing samples in tulip-shaped glasses the blender selects from a wide palate - from the numerous Highland and Speyside malts to the strongly flavoured and peaty Island malts, and the softer and lighter Lowland malts. These malts are combined with grain whiskies - usually 60-80% grain whiskies to 20-40% malt whiskies, and are then left to 'marry' in casks before being bottled as one of the world-renowned blended whiskies.

A blend of a range of malt whiskies, with no grain whisky included, is known as a blended malt.

The way we make Scotch whisky has evolved over several centuries, but the history of Scotch whisky embraces a much wider heritage; that of Scotland and its people.

What are the main kinds of Scotch Whisky?

There are two kinds of Scotch Whisky - Malt Whisky and Grain Whisky. The Malt Whiskies are divided into four groups according to the geographical location of the distilleries in which they are made, as follows:

- (1) **Lowland Malt** Whiskies, made south of an imaginary line drawn from Dundee in the east to Greenock in the west.
- (2) **Highland Malt** Whiskies, made north of that line.
- (3) **Speyside Malt** Whiskies, from the valley of the River Spey. Although these whiskies come from within the area designated as Highland Malt Whiskies, the concentration of distilleries and the specific climatic conditions produce a whisky of an identifiable character and require a separate classification.
- (4) **Islay Malt** Whiskies, from the island of Islay.
- (5) **Campbeltown** Whiskies, from the Campbeltown peninsula on the west coast.

Each group has its own clearly defined characteristics, ranging from the lighter Lowland Malt Whiskies to those distilled on Islay which are generally regarded as the heaviest Malt Whiskies.

Malt Whiskies, which differ considerably in flavour according to the distillery from which they come, have a more pronounced bouquet and flavour than the Grain Whiskies. The production of Grain Whisky is not so influenced by geographical factors and it may be distilled anywhere in Scotland.

What gives Scotch Whisky its distinctive flavour and bouquet?

This is one of the mysteries of the industry and a secret which many imitators of Scotch Whisky have tried in vain to discover. Many theories and explanations have been put forward, but there is no universally accepted solution.

The distilling process itself is one factor. Scotch Whisky, after it has been distilled, contains not only ethyl alcohol and water but certain secondary constituents. The exact nature of these is not fully understood, but it is believed they include some of the essential oils from the malted barley and other cereals and substances that derive from the peat. The amount of these secondary constituents retained in the spirit depends upon the shape of the still and the way it is operated and also on the strength at which the spirit is drawn off. Grain Whisky, because of the process by which it is made, contains fewer secondary constituents than Malt Whisky and is accordingly milder in flavour and aroma.

The natural elements of water, peat and the Scottish climate all certainly have a profound effect on the flavour of Scotch Whisky. Water is probably the most important single factor and a source of good, soft water is essential to a distillery. Peat, which is used in the kiln or oven in which the malt is dried, also has an influence that can be detected in the 'peaty' or smoky flavour of many Scotch Whiskies.

The Scottish climate is extremely important, particularly when the whisky is maturing. At this stage the soft air permeates the casks and works on the whisky, eliminating harsher constituents to produce a mellow whisky.

Why do whiskies produced in different distilleries vary in flavour?

This again is a question which it is very difficult to answer with certainty. Most people would agree that the water used is the decisive factor. Adjoining distilleries which draw their water from different sources are known to produce whiskies that are quite dissimilar in flavour.

The size and shape of the stills are also important as are the skill and experience of the men who manage them. It is the objective of the distiller to produce a whisky whose flavour and character remain consistent at all times and in all

circumstances. This is the true art of distilling, acquired only after many years and often handed down from one generation to the next.

How many distilleries are there?

There are around 100 Pot Still Malt distilleries and Grain, or Patent Still, distilleries in Scotland; but the number working can vary from year to year.

Can Scotch Whisky be made only in Scotland?

Yes. Many other products which were originally manufactured only in a particular locality have lost their geographical significance and can now be manufactured anywhere. The word 'Scotch', however, as applied to whisky, has retained its geographical significance. This is widely recognised in law throughout the world. Thus, whisky may be described as Scotch Whisky only if it has been wholly distilled and matured in Scotland for a minimum of 3 years.

If you could duplicate exactly a Scotch Whisky distillery in, say, Brazil or Spain, could you produce Scotch?

No. For the reason given in the preceding answer, whisky can be called 'Scotch' only if it is distilled and matured in Scotland. Whisky produced in Brazil is 'Brazilian Whisky' or in Spain 'Spanish Whisky'. Attempts have been made to copy the unique flavour of Scotch Whiskies in many parts of the world, but with no success whatsoever.

2. What is single malt? Explain the major difference between bourbon and Tennessee whisky?

(OR)

What are the differences between scotch, bourbon, and Tennessee whiskies?

ANS:-

Single malt whisky is malt whisky from a single distillery, that is, whisky distilled from fermented mash made exclusively with malted barley, as distinguished from unmalted grain. Single malts are typically associated with single malt Scotch, though they are also produced in various other countries.

Scotch Whisky must conform to the *Scotch Whisky Order of 1990*, which requires that it:

- Be distilled at a Scottish distillery from water and malted barley to which only other whole grains may be added.
- Be processed at that distillery into a mash (mixture of cooked grains and water).
- Be converted to a fermentable substrate only by endogenous enzyme systems (malt).
- Be fermented only by the addition of yeast.
- Be distilled to an alcoholic strength of less than 94.8% by volume so that it retains the flavor of the raw materials used in production.
- Be matured in Scotland in oak casks for not less than three years.
- Not contain any added substance other than water and caramel coloring.
- Be bottled at not less than 40% ABV (alcohol by volume).

Additionally:

Single Malt Scotch must be distilled at a single distillery from water and malted barley without the addition of other cereal grains by batch distillation in pot stills.

Bourbon Whiskey must conform to the *Alcohol and Tobacco Tax and Trade Bureau's* standards for identity as Bourbon, which require that it be:

- Produced from a fermented mash of not less than 51% corn.
- Distilled at not greater than 160 proof.
- Stored at not more than 125 proof in new, charred oak containers.
- Bottled at not less than 80 proof with nothing added during processing but pure water.

- A product of the USA.

Additionally:

- **Straight Bourbon Whiskey** must be aged at least two years in new, charred white oak barrels.
- **Bottled-in-Bond Bourbon Whiskey** must be produced at one distillery during one distilling season, aged a minimum of four years in a federally-bonded warehouse, and bottled at 100 proof.

Tennessee Whiskey as defined by the *North American Free Trade Agreement* must be:

- Straight Bourbon Whiskey.
- Produced in the State of Tennessee.

Additionally, some Tennessee Whiskies are filtered using the *Lincoln County Process* whereby it is exposed to a column of charcoal chips before being transferred to barrels for aging.

From a consumer standpoint:

- *Scotch Whisky* is generally regarded as having a smokey character, though this is not universally accurate; flavors vary widely among brands.
- *Bourbon Whiskey* is generally perceived as being sweeter than other whiskies due to the high percentage of corn used in the mash bill and the use of new oak barrels which retain all of their original sugars.

Tennessee Whiskey is very similar to Bourbon, though some are perceived as being mellower than other whiskies due to filtering through charcoal.

3. What is rum? Explain its production process?

(Or)

Type of Rum? What is Cachaça?

ANS:-

“Rum” is an alcoholic distillate made from sugar cane, or its derivatives like sugar cane juice, molasses or other sugar cane by-products. The base is combined with water & yeast and after fermentation it is distilled. Majority of rums are produced from molasses. Molasses-based rum is distilled via a column still; sugarcane-based rum is often distilled via a pot still.

How is Rum Made | Rum Production Process

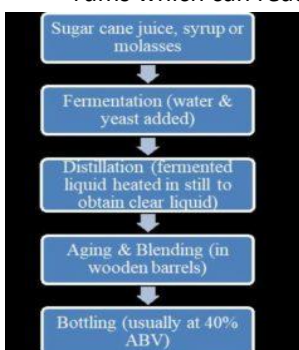
There are two production methods – *Traditional Rums* and *Agricultural Rums*.

Traditional Rums made from a molasses base, a by-product from the production of sugar cane.

Agricultural Rums made from sugar cane juice then fermented and distilled.

How is Rum Made involves following steps:

1. **Fermentation** – sugar cane juice or other derivative are allowed to rest, yeast in the air is attracted to the natural sweetness of the liquid, or yeast and water are added to vats. Fermentation occurs as sugars are converted by yeast into alcohols. It can be as short as 24 hours or as long as three weeks, depending on the strain of yeast used and the style of rum being produced.
2. **Distillation** – Fermented liquid is heated in sealed vessel (pot or continuous still) to get concentrated alcohol.
3. **Aging & Blending** – Distilled liquor is poured in wood cask to age. It requires to be aged for at least one year. Aging process determines the color of the rum. After aging different distillates are blended for consistent flavor.
4. **Bottling** – The majority of rum is bottled at 40% alcohol by volume, though there are some exceptions, including overproof rums which can reach higher volume.



Types of Rum

1. Light Rum – also called as white or silver rum. Rums are generally aged in stainless steel tanks for up to a year and filtered before bottling.

2. Dark Rum – made from caramelized sugar or molasses and aged for longer, in heavily charred barrels, giving them much stronger flavors.

3. Gold Rum – also referred as amber rum and is rich and smooth. Aged in wooden barrels usually the charred, white oak barrels that give dark color.

4. Overproof Rum – very high alcohol content. Always diluted and used in mixed drinks.

5. Flavored Rum – Natural and artificial ingredients added for desired flavor. Flavors are infused after the fermentation & distillation.

6. Spiced Rum – Various spices like cinnamon, rosemary, aniseed, pepper, cloves, cardamom are added for flavor.

Quality of Rum

Significant factors that affect the taste, quality, color and viscosity of rum include:

- *Raw fermenting materials* – should have enough sugar content for yeast activity
- *Method of fermentation* – Natural and Controlled fermentation
- *Types of yeast used* – wild yeast, Dunder as it affects the final taste & aroma.
- *Method of distillation* – Pot still and column still methods
- *Blending of various barrels of rum* – It gives rum consistent flavor

Quality of water used to dilute the final product – pH, TSS of water affects final product

Rum Brands

Bacardi, Havana club, Captain Morgan, Hercules, Mc Dowell's, Jolly Roger are some of the famous Rum brands in India with an alcohol content from **40-46%**.

What is Cachaça?

The Brazilian rum known as cachaça differs from others because it skips the molasses and instead uses pure sugar cane juice in the distillation process. By law, cachaça must be produced in Brazil.

Cachaça is one of the sweetest rums available, though many people—particularly in Brazil—don't like to categorize it as a rum. Instead, it's often thought of as a unique distilled spirit that is its own category. While cachaça was once only available in South America, it's enjoying worldwide fame today. There are many fascinating brands available to explore and they run the gamut of price and quality. Many distillers, such as Novo Fogo, even play with different types of exotic woods that impart unique flavor profiles to the spirit. The most famous cachaça cocktail is the caipirinha, Brazil's national drink. Yet, it is a fantastic mixer for a variety of cocktails, including those that typically use a standard rum

4. What is proof? Explain gay-lussac proof?

ANS:-

Proof is the government documentation of a distilled beverage's alcohol content. In the United States if you cut the number in half and you get you get the actual amount of alcohol in the bottle. Eighty proof means 40 percent of the liquid in the bottle is alcohol

The word proof derives from what must have been a very containing method of testing alcoholic strength. Some of the spirit was mixed with a little gunpowder. If the mixture could be ignited with a mild explosion the alcoholic content was too strong for drinking, i.e. over proof. If the mixture burnt with a gentle blue flame or failed to ignite, it was 'proven' as suitable for drinking, i.e. under proof – proof being taken to be 100°. It is obvious that proven spirits could be very weak or, by modern standards, very potent. Apart from judging by the taste, or watching for the effect on the drinker, there was no other method of estimating the strength of a spirit until a man named Clark, late in the 17th century, invented a weighted float. When dropped into a spirit the depth to which the float sank revealed the density of the liquor and from this the alcoholic strength could be calculated. He was thus able to calibrate a particular strength as proof and any with a greater or less concentration of alcohol was over or under proof respectively.

This gadget led to the introduction in 1816 of a hydrometer, invented by Bartholomew Sykes presumably to assist him in his work at the Board of Excise. Mr. Sykes was certainly not a supporter of the process for decimalizing measurements, but he was sufficiently ingenious, to lay down a standard, designed to protect the public and the Exchequer but none the less

incomprehensible to all but the expert. He had the satisfaction of seeing the use of his apparatus adopted under the Hydrometer Act 1818. It is deservedly in standard use in the U.K. today, for its measurements are accurate when adjustments are made for temperature and for the sugar content in some spirits. The scale of the measurements devised by Sykes takes advantage of the difference in the specific gravity of alcohol and water. Proof spirit thus came to mean that, at a temperature of 51°F. (10.16°C.) the spirit weighs exactly twelve-thirteenths of a volume of distilled water equal to the volume of the spirit. This works out that proof spirit is a mixture of spirit and water of a strength of 57.1 per cent of spirit by volume and 42.9 per cent of water. This proof spirit is then taken to be 100° proof. The strength of 30° under proof spirit is therefore spirit of 70° proof, i.e. it contains 70 percent of spirit of proof of strength which on the ratio given above means that it contains 40 per cent pure spirit and 60 per cent water by volume. On this scale pure alcohol is taken to be 175° proof or 75° over proof. The figure for pure alcohol is thus $1\frac{3}{4}$ times the figure accorded to proof spirit and this fraction of $\frac{7}{4}$ is used if you want to know the percentage volume of alcohol in a spirit. Thus whisky as it is usually sold in the United Kingdom at 30° under proof or 70° proof (both meaning the same) contains a percentage of pure alcohol in volume of four-sevenths of 70, which equals 40 percent.

The French found the Sykes hydrometer an excellent invention, but they were not mad enough to accept his scale of measurements. Gay Lussac simply thought that 100° should represent 100 per cent. Of alcohol in volume and nought should represent the absence of alcohol. Thus the United Kingdom's proof spirit (100°) becomes 57° I G.L. in France and our 70° proof whisky would be labelled as 40° G.L. if it has been manufactured in France. The Americans adopted a third scale of measuring and they were reasonably logical in deciding that proof spirit should be an exact balance of alcohol and water and that pure alcohol should be 200° proof. So, American whiskey labelled as 80° proof has the same percentage volume of alcohol as the United Kingdom's 70° proof.

5. What is brandy? Explain the major difference between cognac and Armagnac?

ANS:-

Brandy is a spirit produced by distilling wine. ... Some brandies are aged in wooden casks, others are coloured with caramel colouring to imitate the effect of aging, and some are produced using a combination of both aging and colouring.

Cognac is actually a type of brandy that has been distilled in the town of Cognac in France. Brandy is produced in the wine-growing region surrounding Cognac. Cognac is distilled in Charentais copper pot stills until they are a colorless spirit of about 70% alcohol. Armagnac is a type of brandy that is produced in the in the Armagnac region in Gascony, southwest France. Armagnac is traditionally distilled in column stills once at 52% alcohol, which gives it more flavor and taste compared to the cognac.

Cognac and Armagnac often confuse people that are not alcohol enthusiasts. They are often confused to the same thing as they are both brandy. True they are similar in nature and both are different types of brandy. However, they are produced in two different places and are made using different processes. They also differ in terms of flavor and taste.

Cognac Cognac is actually a type of brandy that has been distilled in the town of Cognac in France. Brandy is produced in the wine-growing region surrounding Cognac. There are only a few authorized regions that are allowed to make cognac and these regions have been divided into six zones or crus: Grande Champagne, Petite Champagne, Borderies, Fins Bois, Bon Bois and finally Bois Ordinaire.

Cognac is made from green grapes and only selected grapes are allowed in Cognac production. According to the Bureau National Interprofessionnel du Cognac, if the label will carry the name of the crus, then at least 90% of the grapes used must be Ugni Blanc, Folle Blanche and Colombard, while 10% can be Folignan, Jurançon blanc, Meslier St-François, Sélect, Montils or Sémillon. Cognacs that will not carry the name are required to use at least 90% Colombard, Folle Blanche, Jurançon blanc, Meslier Saint-François, Montils, Sémillon, or Ugni Blanc, and up to 10% Folignan or Sélect.

Once the grapes have been pressed, they are added with yeast and left to ferment for a couple of weeks. The wine is then distilled using traditionally shaped Charentais copper pot stills until they are a colorless spirit of about 70% alcohol. The distilled spirit is then aged for at least two years in French oak barrels from Limousin or Tronçais. In the oak barrels, the alcohol and the water start evaporating about 3% a year. The alcohol reaches the required 40 ABV by four or five decades. However, the alcohol can also be removed early and diluted with water to reach the same ABV. After four or five decades, the cognac can then be transferred to large glass carboys known as bonbonnes for blending purposes.

The inter professional French institution BNIC (Bureau National Inter professional du Cognac), the official quality grades of cognac as:

V.S. (very special) or *** (three stars): designates a blend in which the youngest brandy has been stored for at least two years in cask.

V.S.O.P. (very superior old pale): designates a blend in which the youngest brandy is stored for at least four years in a cask, but the average wood age is much greater.

XO (extra old): designates a blend in which the youngest brandy is stored for at least six years but on average for upwards of 20 years.

Armagnac Armagnac is a type of brandy that is produced in the in the Armagnac region in Gascony, southwest France. It is one of the oldest brandies that have been produced in the world. Armagnac is one of the first areas that started distilling spirits, but produces smaller volumes compared to Cognac. Hence, it is not so well known outside of Europe but it has recently started gaining popularity with brandy lovers everywhere. It was originally produced and marketed as claiming to have 40 virtues.

The Armagnac region lies between the Adour and Garonne rivers in the foothills of the Pyrenees. Governing authorities, The INAO and the Bureau National Interprofessionnel de l'Armagnac (BNIA), has authorized ten different varieties of Armagnac grapes that can be used for production. The four most commonly used are Baco 22A, Colombard, Folle Blanche and Ugni Blanc. The grapes are which gives the Armagnac its flavor and the aroma.

Armagnac is traditionally distilled in column stills once at 52% alcohol, which gives is more flavor and taste compared to the cognac. The alcohol is then aged for long periods of time in oak barrels. The aging gives the Armagnac more powerful and complex flavors, along with softening its taste. Once the Armagnac has matured, it is then transferred to glass bottles for storage. Armagnac is generally not diluted with water or other drinks and is not added with flavor or color enhancers that are usually found in other brandies.

Armagnac is sold blended with several other armagnacs and the age on the bottle refers to the age of the youngest Armagnac. The bottle is marked with A three star or 'VS (very special)' to state that the drink has been aged for at least two years. 'VSOP' is aged five years, 'XO' is aged six years and 'Hors d'âge' means that the youngest component is at least ten years old

6. What is vodka? Explain its production.

ANS:-

Potatoes that have been fermented, though some modern brands, such as Ciroc, CooranBong, and Bombora, use fruits or sugar. Products sold as "**vodka**" in the United States must have a minimum alcohol content of 40%.

From its humble medieval origins as a medicinal agent, vodka has conquered the world. In 2012, tipplers downed 1.17 billion gallons (4.44 billion liters) of the distilled alcoholic beverage, making it the world's most popular spirit. But what is vodka made from?

To produce vodka, you must first ferment any foodstuff that contains sugar or starch, then distill the product to increase its alcohol content. (Fermentation means feeding sugar to yeast, so that the yeast can produce alcohol.) Today, most vodka is made from fermented grains such as sorghum, corn, rice, rye or wheat, though you can also use potatoes, fruits or even just sugar.

The fermentation step creates a product with only about 16 percent alcohol by volume (ABV) — too low for spirits. Upping that number requires distillation, or heating in a container called a still. Because alcohol boils at a lower temperature than water, you can collect the evaporated alcohol, separating it from the water. Most vodka is 30 to 40 percent ABV. "Rectified spirits," like the American brand Everclear, reach 95 to 96 percent ABV.

The Manufacturing Process

Mash preparation

- 1 The grain or vegetables are loaded into an automatic mash tub. Much like a washing machine, the tub is fitted with agitators that break down the grain as the tub rotates. A ground malt meal is added to promote the conversion of starches to sugar.

Sterilization and inoculation

- 2 Preventing the growth of bacteria is very important in the manufacture of distilled spirits. First, the mash is sterilized by heating it to the boiling point. Then, it is injected with lactic-acid bacteria to raise the acidity level needed for fermentation. When the desired acidity level is reached, the mash is inoculated once again.

Fermentation

- 3 The mash is poured into large stainless-steel vats. Yeast is added and the vats are closed. Over the next two to four days, enzymes in the yeast convert the sugars in the mash to ethyl alcohol.

Distillation and rectification

- 4 The liquid ethyl alcohol is pumped to stills, stainless steel columns made up of vaporization chambers stacked on top of each other. The alcohol is continuously cycled up and down, and heated with steam, until the vapors are released and condensed. This process also removes impurities. The vapors rise into the upper chambers (still heads) where they are concentrated. The extracted materials flow into the lower chambers and are discarded. Some of the grain residue may be sold as livestock feed.

Water added

- 5 The concentrated vapors, or fine spirits, contain 95-100% alcohol. This translates to 190 proof. In order to make it drinkable, water is added to the spirits to decrease the alcohol percentage to 40, and the proof to 80.

Bottling

6 Alcoholic beverages are stored in glass bottles because glass is non-reactive. Other receptacles, such as plastic, would cause a chemical change in the beverage. The bottling procedure is highly mechanized as the bottles are cleaned, filled, capped, sealed, labeled, and loaded into cartons. This can be done at rates as high as 400 bottles per minute.

7. What is tequila? Explain its production details?
8. What is mescal?

ANS:-

Tequila is prepared from the heads of the Agave Tequila Weber Blue Variety, previously of subsequently hydrolyzed or cooked, and subjected to alcoholic fermentation with yeast, cultivated or not, and the must be capable of being enhanced and blended together to formulate with other sugars to a ratio not higher than 40% of total reducing sugars expressed in units of mass, as terms set forth by the NOM, being understood that blend mix is not allowed. Tequila is a liquid which, according to its kind, is colorless or colored when mature or when it is softened unripe."

Types of Tequila - Classifications

With close to 1000 Tequila brands to choose from, it helps to know the different types of Tequilas and the categories they fall into. Strict regulations on labeling assist the consumer in determining the type of the spirit, where it was produced, and the term it was aged (if any).

The main two types of Tequila are first split into two categories, 100% Blue Agave, and Tequila Mixto (Mixed). Mixto Tequila contains a minimum of 51% Blue Agave, and the remaining 49% from other sugars (typically cane sugars). The additional products allowed in Mixto Tequilas are caramel color, oak extract flavoring, glycerin, and sugar based syrup. Mixto Tequila can now be bottled outside of the Tequila territory, including other countries, which started January 6, 2006.

By reading the label on the bottle you can tell which classification it is in, as all Tequila that is made from 100% Blue Agave will say "Tequila 100% de agave" or "Tequila 100% puro de agave". All other Mixto Tequila labels will only read "Tequila".

The above two categories of Tequila are then divided into the following five types of Tequila and are labeled as such:

Tequila Silver - Blanco - Plata - White - Platinum

This is the Blue Agave spirit in its purest form. It is clear and typically un-aged, where the true flavors and the intensity of the Agave are present, as well as the natural sweetness. It can be bottled directly after distillation, or stored in stainless steel tanks to settle for up to

4 weeks. There are some Blanco products that are aged for up to 2 months to provide a smoother or "suave" spirit.

Types of Tequila - Blanco

Tequila Gold - Joven - Oro

Gold Tequila is typically a Mixto, where colorants and flavorings have been added prior to bottling. These "young and adulterated" Tequilas are less expensive and used in many bars and restaurants for "mixed drinks".

There are exceptions however, as a "Gold" or "Joven" Tequila can also be the result of blending a Silver Tequila with a Reposado and/or Añejo Tequila, while keeping the 100% Agave classification.

Types of Tequila - Joven

Types of Tequila - Mixto Gold

Tequila Reposado

A Reposado Tequila is the first stage of "rested and aged". The Tequila is aged in wood barrels or storage tanks between 2 months and 11 months. The spirit takes on a golden hue and the taste becomes a good balance between the Agave and wood flavors. Many different types of wood barrels are used for aging, with the most common being American or French oak. Some Tequilas are aged in used bourbon / whiskey, cognac, or wine barrels, and will inherit unique flavors from the previous spirit.

Reposado Tequilas are also referred to as "rested" and "aged".

Types of Tequila - Reposado

Tequila Añejo (extra aged)

After aging for at least one year, Tequila can then be classified as an "Añejo". The distillers are required to age Añejo Tequila in barrels that do not exceed 600 liters. This aging process darkens the Tequila to an Amber color, and the flavor can become smoother, richer, and more complex.

Añejo Tequilas are also referred to as "aged" and "extra-aged".

Types of Tequila - Añejo

Tequila Extra Añejo (ultra aged)

A new classification added in the summer of 2006, labeling any Tequila aged more than 3 years, an "Extra Añejo". Following the same rule as an "Añejo", the distillers must age the spirit in barrels or containers with a maximum capacity of 600 liters. With this extended amount of aging, the Tequila becomes much darker, more of a Mahogany color, and is so rich that it becomes difficult to distinguish it from other quality aged spirits. After the aging process, the alcohol content must be diluted by adding distilled water. These Extra Añejo's are extremely smooth and complex.

Extra Añejo Tequilas are also referred to as "ultra-aged".

Types of Tequila - Extra Añejo

Other types of Tequila spirits you can find on the market include Tequila Liqueurs, Tequila Cremes, Tequila Infusions, Flavored Tequilas, and Tequila soft drinks. Many of these products are used in specialty cocktails, restaurant dishes and desserts. Mixto Tequila is standard for most liqueurs and Flavored products, but it is best to check the label and look for "Made with 100% Agave Tequila".

Types of Tequila - Liqueurs, Cremes, Infusions, Flavored

Mezcal:

Mezcal (traditionally spelled mescal) is a Mexican distilled spirit that is made from the agave plant. Tequila is made from a single type of agave plant – the agave tequilana (blue agave) – and can only be produced in the state of Jalisco

9. What is beer? Explain types of beer?

ANS:-

BEER: INGREDIENTS, MANUFACTURING, PROCESSING, TYPES & BRAND NAMES.

Beer is an alcoholic beverage made by brewing and fermenting malted barley and sometime other cereal with hops added to flavor and stabilize it. Beer is a refreshing drink whose alcoholic content varies from 3% to 4%.

The earliest record of beer making are found in clay tablets written by ancient Sumerian more than 6 thousand year ago. Beer started taking modern form in Christian era. This was largely due to interest taken by the monasteries, which brewed beers and improved it. It was these European monasteries that introduced hops as flavoring, and technique of bottom fermentation that greatly contributed to primitive brew to become the much appreciated modern beers of today.

THE INGREDIENTS USED FOR BEER MAKING HAVE GREAT BEARING ON THE FINAL PRODUCT — QUALITY AND QUANTITY OF EACH AND HOW THEY ARE USED DURING THE PROCESS. THE ESSENTIAL INGREDIENT FOR BEER MAKING ARE:-

WATER:- Water constitutes about 90% of the finished beers. The biological purity and mineral content at the water must be ascertained. In brew parlance water is called liquor. Hard water is assumed to be better suited for lager beers whereas soft water is more ideal for heavier beers. Certain mineral salts like Gypsum aids in separation of husk from malt resulting in clean finished beer. Again mineral like natural Calcium are suited for beers. Ideally majorities of the world's breweries either modify or directly use naturally available water to suit their needs.

1. **Grain:-** The most desirable and frequently used grain for making beer is high quality barley. Varieties of **hordium sativum** are used. Barley is favored over other as it contains essential enzymes like Diastase And Maltase. After receiving the barley screened and cleaned. Then it is taken to malting shed and steeped in water. The grains are turned regularly to ensure contact with oxygen. Then the grain begin to germinate as essential enzymes convert the complex starch into fermentable soluble sugar(Maltose, Dextrin etc. Malting is a process by which starch content of grain is brought to maximum. At this stage the Green malt is placed on the floor of a Kiln and heat stops the process of germination but allow the enzyme Diastase to remain active. The temperature of the kiln and length of time that malt is roasted determines colour and sweetness of beers.
2. **adjuncts:-** sometimes at the time of mashing malt is mixed with other cereals (rice & corn) which are frequently referred to as adjuncts. More the adjunct, lighter the body and flavour of finished beer. However in certain countries like Germany use of adjuncts is legally banned. This is one the reasons German beers are considered to be purest of all.
3. **Hop (*Humulus Lupulus*):-** Hops are member of nettle family. It is perennial flowering vine. The cone shaped female flower are used for it contains "Lupulin" a bitter dust which contains tannin, resins and other essential oils. The best English hop are produced in Kent, Sussex & Worcestershire. The Bohemian hops from Czechoslovakia are amongst the world's best. A few examples of well known hops are :- saaz(Czech rep.) Bouillon (U.S.A), Golding & Fuggle (U.K), Hallertan (Germany)

HOPS ARE USED FOR THE FOLLOWING REASONS:-

1. Flavoring:- It provides the characteristic flavor
2. Taste:- It provides certain bitterness
3. Antiseptic:- Prevent microbial actions and bacterial spoilage during brewing process
4. Cleaning:- It is used to filter wort to remove much of sediment and solids (spent hops may be further used as fertilizer)
5. Clarification:- Tannin present in hops acts as clarifying agent
6. Preservation:- It increases shelf life of beers.
7. **Sugar:-** Specially graded and refined sugar is used that aids in fermentation process and also give sweetness to beer. The yeast act on sugar therefore breaking it up into alcohol and carbon dioxide.
8. **Yeast:-** It is a microscopic unicellular microorganism that multiplies itself by cell division. The function of yeast in the beer making process is to encourage wort to ferment. The two basic varieties of brewer's yeast are:- *Saccharomyces cerevisiae* (also called top fermenting yeast) and *Saccharomyces carlsbergensis* (also called bottom fermenting yeast). The CO₂ thus

produced is not allowed to escape, but stored. The quality and quantity of yeast is strictly maintained which affects the quality of beers.

9. **Additives:**— A number of breweries use natural and chemical substances called additives to serve the following purpose:-
- Peptones ——— to stabilize foam head
 - Gum Arabic ——— to stabilize foam head
 - Ascorbic acid ——— to prevent oxidation of beers which may result in loss of flavour and colour
 - Hydroxybenzoate ——— acts as preservative
 - Caramel ——— to adjust colour

FINNINGS :- Ingredient that are used to clarify beers example:- Ising glass (swimming bladder of sturgeon fish), egg shell, peptin etc. The finnings attract the unwanted particles at the bottom of the cask, leaving the beer clear. Different filters like cellulose, asbestos etc are also used for the same purpose.

PRIMINGS:- IT IS AN OPTIONAL PROCESS IN WHICH A SOLUTION OF HOPS AND CANE SUGAR ADDED TO SOME BEERS (LIKE MILD ALES & STOUT) DURING STORAGE. THE FUNCTION OF primings IS TO CAUSE SECONDARY FERMENTATION BY ALLOWING THE REMAINING YEAST TO REACT WITH THE CO₂ THEREBY PRODUCING ALCOHOL AND CARBONDIOXIDE IN THE CASK ITSELF. THIS RESULTS IN SLIGHTLY SWEETER BEER.

SPECIAL NOTABLE TERM:-

1. **LAUTERING :-** The mash is passed to the lauter tun (with a slatted base) & is stirred with movable rakes. When the stirring stops, the solid settles at the bottom and gets filtered through the slatted bottom. The liquid is now called wort.
2. **Brewing:-** The mash flows out to the brewing kettle, called the copper. Hops are now added and mash is boiled for 1 to 2 1/2 hrs. Sometimes while preparing brown ale and a sweet stout, invert sugar and hops are added to increase amount of fermentable sugar in the wort. The boiling sterilizes the beer and sweet stouts, invert sugar & hops are added that prevent the beers from spoilage. The process is called brewing.
3. **HOP-BACK:-** AFTER COMPLETION OF BREWING OPERATION, HOP BACK IS DONE. This is the process of removing spent hops in large tank with perforated floors. The hot wort is piped into this & spent hops settle at the bottom. The wort passes through this filter of spent hops leaving the floating solids behind.
4. **LAGERING:-** This is a derivative of German word "Lagern" meaning to store. The young beer is run off to storage vats & temperature is brought down. Though only bottom fermented beer is called lager beers, even Ale needs Lagering or maturing for few days for proper conditioning.
5. **KRAUSENING:-** In some breweries freshly fermented wort is introduced to the beer to add zest and carbonation before it is sent for lagering. This process is called KRAUSENING in German meaning "foam" or "froth". It is used to stimulate secondary fermentation during lagering of lager type beer.
6. **PASTEURIZATION:-** The French scientist Louis Pasteur introduced this method. It is usually carried out in case of bottled or canned beer to increase shelf life. The final containers are heated with hot water spray to 60°C/140°F for at least 20min. The process kills any bacteria and any remaining yeast present in the beer which stops secondary fermentation, which otherwise might result in explosion of bottles & bulging of cans.
7. **BRUISED BEER:-** From brewery to bar, a constant temperature is essential to maintain the quality of beer. A beer that has been warmed and cooled again suffers loss in quality and is termed as bruised beer.

TYPES OF BEER:-

LAGER BEER:-

Lager is the generic term for all bottom-fermented beers. Lagering of beer takes place at a near freezing temperature. It may last from several weeks to several months. Lager beers, compared to ale, take a longer period to mature, have less pronounced hop flavour & (except for some contrasting examples) have low alcoholic content. Lagers are generally light bodied. Brand names are-

THERE ARE DIFFERENT STYLES OF LAGER BEERS, WHICH ARE AS FOLLOWS—

- Pilsner: Name derived from the classic Pilsner-Urlquell made in town of Pilsen in Czechoslovakia.
- This style of beer is a lively, dry, light-bodied, light pale golden amber coloured beer. Generally the alcohol content is 4-5% by volume. Pilsner is always served chilled. Some brand names are: Sladick Pils, Konig-Pilsner (Germany), Cascade (Canada), and Hincck Pilsner (Holland).
- Bock — Bock beers are traditionally strong, heavy, dark lagers with a high alcohol content & a rich malty flavour, produced in Bavaria, Germany. Though most of them are dark in colour, they may also be pale or amber or bronze. The alcohol content is 6% by volume & they are served slightly chilled. Bock beers were originally brewed seasonally to celebrate special occasions.

- **Double Bock:-** It was originally produced by Italian monks and traditionally served as warming beers. The strongest beer in the world is a double bock called "Kulminator" (13.2% by volume), produced in Bavaria, Germany
- **Light Beer:-** The variant of Pilsner style beer cater today's health conscious crowd. These beer typically have 100 calories or less per 12 ounce serving and alcohol content of (3.2-3.9%) by volume. Brands are- Miller light, coors Light, bud light
- **Malt liquor:-** They are lager beer with high alcoholic content than pilsner — generally 5.5 to 6% by weight. Adding extra enzyme to increase fermentation usually produces them. Has light malt flavour. Brands— Colt 45
- **Steam Beer:-** It combines the bottom fermentation of lager beer with higher fermenting temperature of Ale. Alcohol content 5% by volume.

DRY BEER:- THIS IS INTRODUCED IN JAPAN IN 1987. THEY ARE LESS SWEET, LIVELY & REFRESHING WITH LITTLE OR NO AFTER TASTE.

ALE BEER:- Ale is generic term for top fermented beer. Ale are fermented at higher temperature & takes less time to mature. More pronounced hop flavour, heavy body & in most cases high in alcoholic content. They are not served chilled.. The various styles are as follow:-

1. **CREAM ALE:-** Golden in color, mild beer with sweet taste.
2. **PALE ALE :-** Straw coloured brew made from lightly roasted malt. It has pronounced yeast and hop flavour. Alcohol content 5% by volume. Brand names :- Martin' Pale Ale, Courage's Strong Pale Ale etc (U.K.)
3. **INDIAN PALE ALE:-** Contains extra hop. Brand names :- Bass, Charrington's, Indian Pale Ale.
4. **Bitter Ale:-** Copper Colored, low in alcohol, heavily hopped, full bodied, malty and most of them are bitter. Alcohol content — 3.5 – 5% by volume. Brand— Master Brew bitter, Pedegree bitter Ale (U.K.) Fuller's
5. **Mild Ale:-** Dark amber brew with sweet after taste of caramel. Lightly hopped. Alcohol content (2.5 – 3.5 %). by volume. Brands— Mild Ale, Hanson' Mild(U.K)
6. **Brown Ale:-** Often referred to a "desert wine" owing to its extra sweet taste. Alcohol content (6-12%). by volume. Brands— Provsie (Belgium), Samuel Smith (U.K)
7. **Barley wine:-** Few old ale which are matured for 2 years or more. Alcohol content (3-6%). Brand— White bread's Gold label
8. **Porter:-** Light black coloured beer, has more malty and less hop flavor, sweeter than stout, also called "Light Gravity Black Beer". Alcohol content (5-7.5%). Brands— Burton Porter(U.K), Sierra Nevada(U.S.A)
9. **Stout—** Commonly called "Black beer", High hop content and strong malt taste, Alcohol content (4-10%). Brands – Courage's Velvet stout, (U.K), Guinness (Ireland)

WHEAT BEER:- Also called "White beer". It is top fermented, high percentage of wheat -60%, often laced with fruit, cherished as summer drink. Brand— Welsse, Weizenbier(Germany), Lambic, Gueuze(Belgium)

NON ALCOHOLIC BEER— These are made either by removing the alcohol after brewing or by stopping the fermentation process before the alcohol forms; has low calorie count; alcoholic content less than 0.5%

PACKAGING OF BEER:-

1) BOTTLED OR CANNED:- Beer is manufactured at a much lower temperature. Pasteurized for longer shelf life. There should be stored at 70°F & preferably in a dark room. Approx shelf life is from 3-6 months. Bottles should be kept upright so that beer does not come in contact with the "crown seal". The desired chilling can be done before actual service.

2) Draught Beer:- Most draught beers are unpasteurised. So to prevent over carbonation and souring, they must be kept under refrigeration at (36-38)*F, the keg should have the storage area close to the bar. Secondary fermentation takes place inside the keg

10. Explain and classify the wine types?

ANS:-

WINE | MANUFACTURING | CLASSIFICATION AND BRANDS

Wine is an alcoholic beverage produced by the natural fermentation of ripe, freshly gathered grapes – according to local traditions and practice.

RED WINE MANUFACTURING -THE STEPS:

Harvest – The grapes are picked when they are ripe, usually as determined by taste and sugar readings.

Stemmer Crusher – This removes the stems from the grape bunches, and crushes the grapes (but does not press them) so that they are exposed to the yeast for fermenting, and so the skins can better impart color to the wines.

Fermentation – Yeast turn the sugar in the wine primarily into Carbon Dioxide, Heat and Alcohol.

Maceration – This is how long the must (juice and grape solids) is allowed to sit, picking up flavor, color and tannin. Too long and the wine is bitter, to short and it is thin.

Pumping Over – Skin and other solids float to the top, and need to be pushed back down to stay in contact with the must. This “cap” can be punched down with a tool, or you can pump must from the bottom over the cap and submerge it that way.

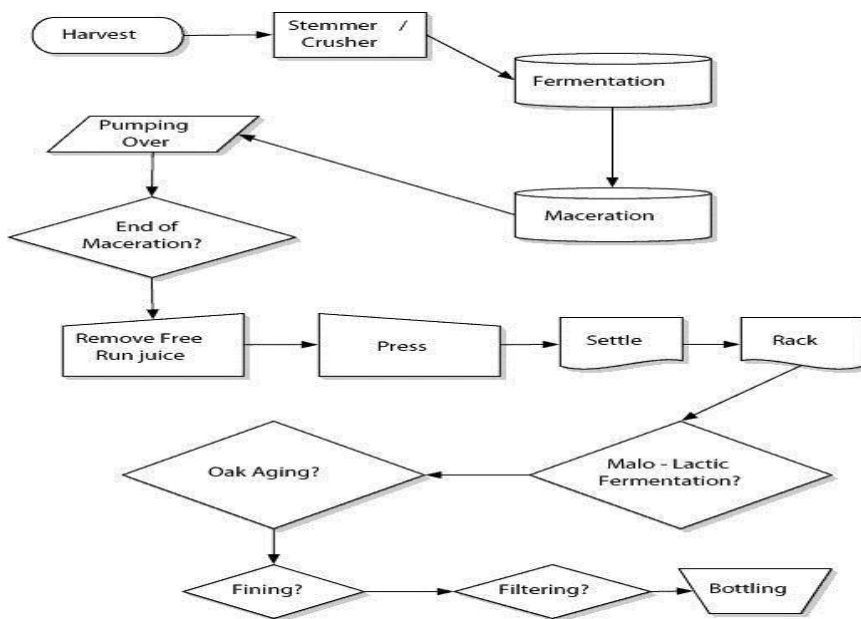
End of Maceration? – The winemaker must decide if the must has sat long enough.

Remove Free Run – The best quality wine is made just from the juice portion of the must. It is removed and the rest of the drier must (now called pomace) is sent to the press.

Press – This squeezes the remaining juice out of the pomace. If you do it too hard, or too many times, you get low quality wine.

Settle – The juice, now wine, needs to settle after this ordeal.

Rack(ing) – Moving the wine from one barrel to a new barrel allows you to leave solids and anything that might cloud the wine, behind.



Malo-Lactic Fermentation – This secondary fermentation can turn the tart malic acid (of green apples) into the softer lactic acid (of milk). Many, but not all red wines go through this step.

Oak Aging – Oak is expensive, if the wine is not meant to age for years, the winery may put the wine in oak for only a short time, or not at all.

Fining – A process that helps to remove anything that may be making the wine cloudy.

Filtering – A process that removes any fining agents, or other undesirable elements in the wine.

Bottling – This is done carefully so that the wine does not come in contact with air. Finer wines may be stored for several years in bottles before they are released.

WHITE WINE MANUFACTURING FLOW CHART:

Harvest – The grapes are picked when they are ripe, usually as determined by taste and sugar readings.

Stemmer Crusher – This removes the stems from the grape bunches, and crushes the grapes (but does not press them) so that they are exposed to the yeast for fermenting, and so the skins can better impart color to the wine.

Remove Free Run – The best quality wine is made just from the juice portion of the must. It is removed and the rest of the drier must (now called pomace) is sent to the press.

Press – This squeezes the remaining juice out of the pomace. If you do it too hard, or too many times, you get low quality wine.

Fermentation – Yeast turn the sugar in the wine primarily into Carbon Dioxide, Heat and Alcohol.

Pumping Over – Skin and other solids float to the top, and need to be pushed back down to stay in contact with the must. This “cap” can be punched down with a tool, or you can pump must from the bottom over the cap and submerge it that way.

Settle – The juice, now wine, needs to settle after this ordeal.

Oak Aging – Oak is expensive, if the wine is not meant to age for years, the winery may put the wine in oak for only a short time, or not at all.

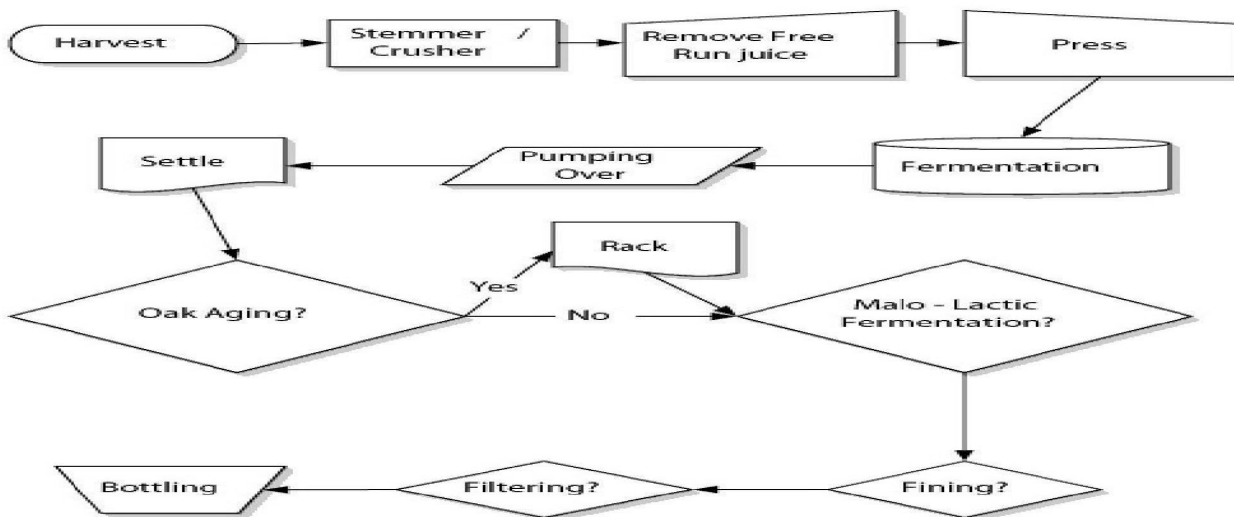
Rack(ing) – Moving the wine from one barrel to a new barrel allows you to leave solids and anything that might cloud the wine, behind.

Malo-Lactic Fermentation – This secondary fermentation can turn the tart malic acid (of green apples) into the softer lactic acid (of milk). Some, but not all white wines go through this step.

Fining – A process that helps to remove anything that may be making the wine cloudy.

Filtering – A process that removes any fining agents, or other undesirable elements in the wine.

Bottling – This is done carefully so that the wine does not come in contact with air. Finer wines may be stored for several years in bottles before they are released.



EXAMPLES OF WINE GRAPES

WHITE GRAPES

Chardonnay, Chenin Blanc, Colombard, Folle Blanche, Gewürztraminer, Müller-Thurgau, Muscat, Palomino, Pinot Blanc, Riesling, Saint Emilion, Sauvignon Blanc, Sercial, Trebbiano, Viognier

BLACK GRAPES

Cabernet Franc, Cabernet Sauvignon, Cinsault, Gamay, Grenache, Malbec, Merlot, Nebbiolo, Pinot Noir, Syrah, Zinfandel, Pinot Meunier

CLASSIFICATION OF WINE TYPES

STILL WINE

This is the largest category. The alcoholic strength may be between 9% and 15%,

by volume. The wines may be:

- **Red:** being fermented in contact with grape skins from which the wine gets its colour. Normally dry wines.
- **White:** usually produced from white grapes, but the grape juice (must) is usually fermented away from the skins. Normally dry to very sweet.
- **Rose:** made in three ways – from red grapes fermented on the skins for up to 48 hours; by mixing red and white wines together; or by pressing grapes so that some colour is extracted. It may be dry or semi-sweet. These are called blush wines in the USA when made wholly from red grapes.

SPARKLING WINES

- The most famous is Champagne. This is made by the *methode champenoise* (secondary fermentation in the bottle) in an area of north-eastern France.
- Effervescent wines made outside this area are called vins *mousseux* or sparkling wines and are made by either the *methode champenoise* (now to be called *methode traditionnelle*), the *Charvat* method (tank fermented and sometimes termed the *methode cuve close*), the transfer method, or the carbonation method.
- They may vary from *brut* (very dry), *sec* (medium dry), *demi-sec* (medium sweet), to *doux* (sweet).

FORTIFIED WINES

Fortified wines such as Sherry, Port and Madeira have been strengthened by the addition of alcohol, usually a grape spirit.

These are now known within the EC as liqueur wines or vins *de liqueur*. Their alcoholic strength may be between 15% and 22%, by volume.

- **Sherry** (from Spain) 15-18% ; made from white grapes -fino (dry), amontillado (medium), oloroso (sweet);
- **Port** (from Portugal) 18-22% ; strong sweet; typically drunk as a dessert wine – ruby, tawny, vintage character, late bottled vintage, vintage
- **Madeira** 18% (famous dessert wine; made on the Portuguese island of Madeira) – Sercial (dry), Verdelho (medium), Bual (sweet), Malmsey (very sweet)
- **Marsala** 18% – a dark sweet wine from Marsala in Sicily

Aromatized wines:– These are flavoured and fortified. Typical example is Vermouth.

VERMOUTH TYPES

The four main types of vermouth are;

- **Dry vermouth:** often called French vermouth or simply French. It is made from dry white wine that is flavoured and fortified.
- **Sweet vermouth/Bianco:** made from dry white wine, flavoured, fortified and • sweetened with sugar or mistelle,
- **Rose vermouth:** made in a similar way to Bianco but it is less sweet and is ^ coloured with caramel.
- **Red vermouth:** often called Italian vermouth, Italian or more often It (as in Gin and it). It is made from white wine and is flavoured, sweetened and coloured with a generous addition of caramel.

THE WINES OF FRANCE

- Appellation Contrôlée (controlled naming) laws – the name of wines reveals quality – helps prevent fraud & gives authenticity.
- Production and labeling governed by INAO – Institut Nationale des Appellation d'Origine des vins et Eau-de-vin
- The ground rule for naming French wines are basically geographical – area, grape-variety, yield, viticulture, vinification, ageing, alcohol-content and a **taste-test**.

Gradings

Meanings

AOC

Appellation d'Origine Contrôlée; Highest quality and most prestigious grading for French Wines but produces only 25% of all wines

VDQS

Vins Délimités de Qualité Supérieure; Taste-test is a must; 5% of all wines.

Vin de Pays

Literally means 'Country Wines'

Vin de Table

Fully blended.

Vin Ordinaire

Labeled by alcohol-content; Sometimes cheaper than even mineral water!

WINE PRODUCING REGIONS OF FRANCE**Regions****Popular Wines**

BORDEAUX :- Probably the most prestigious wine-region.

Château Lafite-Rothschild –
Pauillac (Red)

Château La Tour-Pomerol (Red)

Château Pape-Clément (red)

Château Olivier (white)

Château Couhins (white)

Château d'Arche (white)

BURGUNDY

Chambertin- R

Le Corton (r)

Les Grèves (r

Charlemagne (w)

Montrachet (w)

Morgeot (w),

Rully (both red & white)

Montagny (white)

CÔTES-DU-RHÔNE**VAL DE LOIRE**

Anjou (w & r – sparkling)

Muscadet (w – dry)

Pouilly Fumé (w – dry)

Vouvray (w – still & sparkling)

ALSACE

Alsac Riesling

Alsac pinot blanc

JURA

Château Chalon

Arbois

PROVENCE

Cassis

LANGUEDOC-ROUSSILLON

St. Chinon

SOUTHWEST

Montravel

SAVOIE

Crépy (w – dry)

WINES OF ITALY

- Half the size of France but quantity is almost equal.
- 60% reds – probably second only to Bordeaux and Burgundy
- More like Burgundies – robust, full-bodied, deep red.
- Wine regions:- LOMBARDY, TUSCANY, VENETO, PIEDMONT, SICILY
- Production and labeling governed by **DOC (Denominazione di Origine Controllata)**

POPULAR WINES:-**White****Red****SPARKLING WINES**

Est! Est!! Est!!!

Bardolino (hardy red)

Asti Spumante

Falerno

Barolo (R)

Lacrime Christi

Capri

Boca (r)

Asti Spumante

Etna

Fara

Lugana

Barbaresco

Galestro

Soave

WINES OF SPAIN

- The third largest wine-producing country in the world.
- Home of fortified wine of Sherry
- Wines labeled DO (Denominacion de Origen) are of guaranteed standard

POPULAR WINES:-**RED****WHITE**

Marques de Riscal Gran Reserva

La Cana Albarino

Torres Mas La Plana

Burgans Albarino

Vega Sicilia Unico

Poema White Blend

Dominio de Pingus

Protocolo Blanco

Clos Erasmus

Shaya Verdejo

Clos Mogado

PORTUGAL

- Climate not quite conducive for viticulture.; Even then, great variety and sufficient quantity.
- 15% of the populace is involved in wine trade
- Best wines are labeled Designacio de Origen (DO).
- Home of PORT & MADEIRA

POPULAR WINES:-

PORT WINES	SHERRY	RED	WHITE
Churchill's Crusted Port	BLANDY	CAMPOLARGO	BIOMANZ
Quinta do Naval Black	LEACOCK	JULIA KEMPER	FILIPA PATO
Dow's White Port	PERIQUITA	QUINTA DO NOVAL	QUINTA DA PELLADA
	BARBEITO	CASCA WINES	AFROS

WINES OF U.S.A:-

- The 5th largest wine-producing country.
- Rosé wines are referred to as **blush**
- Quality is also commendable.
- Wine production started after the arrival of the European settlers in the 17th century

WHITE	RED	SPARKLING
Heron California Chardonay	SKN Nappa Valley Cabernet Sauvignon	NV Gruet Brut
Windmill Lodi Chardonay	Bears Nappa Valley Cabernet Sauvignon	Mirabella Brut
Pine & Post Washington Chardonay	Mark West California Pinot Noir	Sofia Blanc de Blanc
Morgan Sauvignon Blanc	Lange Twins California Merlot	
Geyeser Peak Sauvignon Blanc	Kendall Jackson California Syrah	

INDIAN WINES :-

- Harvest normally takes place in September and is usually done by hand
- Indigenous table grape varieties:- Anabeshahi, Arkavati and Arkashyam

Wines Producing Regions

Nasik

- Located in the state of Maharashtra.
- Region include Pune,Nasik,Ahmed Nagar.

- Several top wineries are located here.
- Chateau Indage, Sula wines.

Sangali Region

- Also located in Maharashtra.
- This region includes places like
-solapur,sangali,satara and latur.

Bangalore Region

Grover Vineyards, located in Nandi Hills (45 kilometer North of Bangalore City)

Himachal Region

- It is upcoming state for the wine in India.

SOME FAMOUS WINE MAKERS

Indage à Narayangaon (Pune)

Grover Vineyards à Bangalore

Sula à Maharashtra

Renaissance Wines à Nashik

ND Wines à Nashik

<u>Red Wine</u>	<u>WHITE WINES</u>	<u>Rose wines</u>	<u>Sparkling wine</u>
Syrah	Sailo Rio	Shiraz rose	Sula Brut
Galaxy	Et tu Brutus	Maderas rose	Sula Seco
Vallet Sailo	Mark Antony	Sula Blush Zinfandel	
Satori Merlot	Sauvignon Blanc		
Cabernet Shiraz	Dia white		
La Reserve	Madera white		

11. What are the factors that should be considered while pairing wine with food? Explain

Ans: Service of White Wine

Materials Required:

White Wine Bottle, White Wine Glass, Ice Bucket, Waiter's friend, Napkin, Quarter Plate

Service Procedure:

- Place the white wine glass on the right-hand side just above the knife.
- Collect the wine bottle and check if the temperature is chilled.
- Carry it to the table in an Ice bucket along with the stand.
- Take the bottle out of the ice bucket and wipe it with a Napkin.

- Present the bottle to the host from his/her right-hand side with label facing him/her so that the label can be read easily. The *sommelier* must announce the name of the wine, Vintage year if any. This is done to inform the host that the correct wine is presented.
- When the host has confirmed the wine is correct, place the bottle in the ice bucket or on the edge of the table with the label facing the host.
- Using the waiter's friend knife we cut the foil just above the raised ridge just about $\frac{1}{4}$ inch below the top of the bottle.
- This foil cap we keep in the pocket and close the knife.
- We then wipe the bottle again and then open the cork-screw and insert the sharp tip of the cork-screw into the center of the cork. Slowly turn the cork-screw in a clockwise direction until the last turn of the cork-screw is visible.
- Tilt the arm of the waiter's friend so that the lever rests on the lip of the bottle and gently extract the cork out by raising the opposite end of the waiter's friend.
- Un-screw the cork and place it on a quarter plate for inspection.
- Close the cork-screw and place it back in the pocket and wipe the mouth of the bottle with the napkin.
- Fold the napkin in a "collar" and grip the bottle along with it so that the label should be facing the guest. Pour a minimum of one ounce of wine into the host's glass for tasting and approval from the right hand side.
- The wine should be poured into the center of the glass without touching the wine glass. Slightly twist the wine bottle before lifting it away from the glass to avoid drops from the bottle neck.
- After receiving approval from the host, start serving the ladies first moving clock-wise around the table, then the men and finally the host.
- Do not overfill the wine glasses. White wine should be served to the maximum of $\frac{2}{3}$ rd of the glass.
- Place the wine bottle back in the ice-bucket.
- Re-fill if necessary.

Service of Red Wine

Materials Required:

Red Wine Bottle, Red Wine Glass, Waiter's friend, Cradle (Optional), Napkin, Quarter Plate

Service Procedure:

- Place the red wine glass on the right-hand side just above the knife.
- Collect the wine bottle on the left hand with a napkin or on a "cradle".
- Present the bottle to the host from his/her right-hand side with label facing him/her so that the label can be read easily. The *sommelier* must announce the name of the wine, Vintage year if any. This is done to inform the host that the correct wine is presented.
- When the host has confirmed the wine is correct, place the bottle in the ice bucket or on the edge of the table with the label facing the host.
- Using the waiter's friend knife we cut the foil just above the raised ridge just about $\frac{1}{4}$ inch below the top of the bottle.

- This foil cap we keep in the pocket and close the knife.
- We then open the cork-screw and insert the sharp tip of the cork-screw into the center of the cork. Slowly turn the cork-screw in a clockwise direction until the last turn of the cork-screw is visible.
- Tilt the arm of the waiter's friend so that the lever rests on the lip of the bottle and gently extract the cork out by raising the opposite end of the waiter's friend.
- Un-screw the cork and place it on a quarter plate pierced with a small fork for inspection.
- Close the cork-screw and place it back in the pocket and wipe the mouth of the bottle with the napkin.
- Fold the napkin in a "collar" and grip the bottle along with it so that the label should be facing the guest. Pour a minimum of one ounce of wine into the host's glass for tasting and approval from the right hand side.
- The wine should be poured into the center of the glass without touching the wine glass. Slightly twist the wine bottle before lifting it away from the glass to avoid drops from the bottle neck.
- After receiving approval from the host, start serving the ladies first moving clock-wise around the table, then the men and finally the host.
- Do not overfill the wine glasses. White wine should be served to the maximum of one half of the glass.
- Place the wine bottle back on the "cradle" or place it on the table with the label facing the host.

Re-fill if necessary.

DECANTING

It is the process of separating wine from its sediments by transferring wine from its bottle to a fresh glass container.

Red wines are decanted for the following purposes:

- To separate the clear wines from the sediments
- To allow the wine to 'breathe'
- To transfer the wine from the bottle to get it to room temperature
- To promote or merchandise the wine

Before decanting the wine, the permission of the host should be obtained.

- Materials required for decanting: Red wine bottle, decanter, candle, matches, waiter's friend, napkin, quarter plate
- Procedure – open the bottle first but carefully so that the bottle is not agitated much and the sediments get dislodged.
- Present the cork on the quarter plate and then wipe the mouth of the bottle.
- Light the candle with the matches and place on candle holder.
- Hold the bottle in the right hand and neck of the decanter with the other hand.
- Position the neck of the bottle 4 to 6 inches above the candle and gently transfer the wine from the bottle to the decanter without resting the bottle on the decanter.

- Pour the wine steadily keeping close watch on the shoulder of the bottle to ensure the sediments are not getting in the decanter. The candle light helps in observing the movement of sediments clearly.
 - As the sediments approach the shoulder of the bottle, raise the bottle gently to stop the flow.
 - Place the bottle which has sediments on the table.
 - Serve the wine to the host from the decanter for his/her approval.
 - After receiving approval from the host, start serving the ladies first moving clock-wise around the table, then the men and finally the host.
 - Place the decanter on the table within the reach of the host.
- ❖ Many guests prefer decanting even young wines, as the bouquet improves when the wine is exposed to air. Old red wine bottles may be allowed to stand over-night before decanting. This makes the decanting process easier. Old wine should be decanted just before service as the bouquet will fade if the wine is exposed to air for a long time. Vintage Ports are also decanted as they have sediments in them.

Service of Champagnes and other Sparkling Wines

Champagne and Sparkling Wines are served chilled. One should never make an attempt to open a non-chilled bottle as it will explosively foam over.

While opening the Champagne bottle, it should be remembered that the pressure behind the cork is enormous and hence, it should not be shaken. Remember the following safety points while opening a Champagne bottle:

- Hold the bottle at an angle of 45° to reduce the pressure on the cork, away from the guest and furniture.
- Handle the bottle gently and carefully. Do not shake the bottle, otherwise the pressure will build up and cause accident.

The materials required for service of Champagne include:

Champagne/Sparkling wine bottle, Champagne cooler, Flute or Tulip, Napkin, Quarter Plate

Service Procedure:

- Place the Tulip or Flute on the right-hand side just above the knife.
- Collect the bottle and check if the temperature is chilled.
- Carry it to the table in the Champagne Chiller containing crushed ice and salt along with the stand.
- Take the bottle out of the chiller and wipe it with a napkin.
- Present the bottle to the host from his/her right-hand side with label facing him/her so that the label can be read easily. The *sommelier* must announce the name of the Champagne/Sparkling Wine. This is done to inform the host that the correct wine is presented.
- When the host has confirmed the wine is correct, hold the bottle firmly with the left hand at an angle of 45° at waist height. Make sure it is not facing any guests or electrical fittings.
- With the right hand peel the fancy foil from the top of the bottle. Next un-twist the *agraffe* (metal wire cage) gently.

- Firmly hold the cork down with the right hand while holding the base of the bottle in the left hand.
- Slowly twist the cork with the right hand in a circular motion so as to release it, while the left hand is firmly holding the bottle along with a napkin.
- Due to the pressure built up in the bottle the cork comes out smoothly. Do not make a 'Popping' sound if possible.
- Hold the bottle with the right hand in such a way that the label is facing the host. From his/her right hand side pour a minimum of one ounce of wine into the host's glass for tasting and approval. The wine should be poured in the center of the glass without touching the rim of the glass. Slightly twist the bottle before lifting it away from the glass to avoid drops from the bottle neck. Wipe the mouth of the bottle with the napkin held in the left hand.
- After receiving approval from the host, start serving the ladies first moving clock-wise around the table, then the men and finally the host.
- Serve only $\frac{1}{4}$ th of the glass and allow the bubbles to settle down before serving again.
- Place the bottle back in the wine chiller and refill the glass when necessary.

Matching wine with food

- CHAMPAGNE OR SPARKLING WINE COMPLEMENT MOST FOODS.
- SERVE RED WINE WITH RED MEAT AND WHITE WINE WITH WHITE MEAT.
- IF UNSURE ROSE WILL DO
- SERVE WHITE WINE BEFORE RED.
- SERVE DRY WINE BEFORE SWEET
- SERVE GOOD WINE BEFORE GREAT WINE
- COMMENCE WITH GRAPE APERITIF RATHER THAN A GRAIN APERITIF
- SERVE NATIONAL WINES WITH NATIONAL DISHES.
- TEMPERATURE YOUR WINE CORRECTLY.

12. What is liqueur? Explain its production process?

Ans:

LIQUEUR

DEFINITION

An alcoholic beverage produced by combining spirits with fruits, herbs and other flavouring elements and containing more than 2.5% by weight of sugar.

ORIGIN

- Latin word- LIQUIFACERE- means to dissolve or melt
- Liqueurs were used as medicine for stomach ailments
- Since these medicines were harsh tasting so they were sweetened with honey

OTHER NAMES

- CORDIAL -- SWEET (AMERICA)
- DIGESTIF -- DIGESTIVE (FRANCE)

CLASSIFICATION

- Base spirit
- Type of flavouring
- Method of manufacturing

In fruit liqueurs different portions of the fruits like peel, pulps etc are used. In plant liqueurs, leaves, herbs, barks are used.

FLAVOURING

Herbs Fruits Flowers Barks Roots Seeds

- **Herbs** – Basil, Peppermint, Rosemary, Sage, Thistle, Thyme etc.
- **Flowers** – Chamomile, Lavender, Lily, Rose, Saffron etc.
- **Fruits** – Berries, Peaches, Oranges, Pineapple, Banana, Raisins etc.
- **Barks** – Angostura, Myrrh, Sandalwood, Sassafras, Cinchona etc.
- **Roots** – Angelica, Celery, Ginger, Liquorice, Turmeric, etc.
- **Seeds** – Aniseed, Pepper, Juniper Berries, Caraway, Clove, Coffee etc.

Brandy is the most commonly used **base spirits** for liqueurs, others being rum, whisky, neutral spirit etc.

BASE SPIRIT

Brandy Rum Whisky Neutral Spirit etc.

MANUFACTURING STYLES

Infusion Percolation Distillation

MANUFACTURING STYLES

● INFUSION / MACERATION

- Flavourings steeped in high proof spirit (6-8 months) so that the alcohol absorbs the character of the substance
- Flavoured spirit drawn off and filtered.
- Additional spirit is added to adjust the flavour, sweetened, some are aged.
(in case of delicate fruits like strawberries, raspberries, peaches etc)

● PERCOLATION

- Similar to coffee percolator.
- Flavouring agents in upper part.
- Spirit in lower part (pumped through the flavourings).
- This continues for weeks or even months
- Flavoured spirit is separated and filtered
- Spirit is added to adjust the flavouring
- Sweetened (in case of vanilla beans and coco pods)

● DISTILLATION

- in medium sized pot still, similar to gin still.
- flavouring agents first soaked in spirit to soften for 24-48hrs.
- Additional brandy is added and distilled
- sweetened, some are aged (specially in case of plant liqueurs)

BRANDS

LIQUEUR	COLOUR	FLAVOUR / BASE SPIRIT	COUNTRY
Abricotine	Red	Apricot / Brandy	France
Avocaat	Yellow	Egg, Sugar/Brandy	Holland
Anisette	Clear	Aniseed / Neutral Spirit	France, Spain, Italy
Arrack	Clear	Herbs, Sap of Palm Trees	India, Sri Lanka, Jamaica
Bailey's Irish Cream	Coffee	Honey, Chocolate, Cream Whiskey	Ireland
Benedictine DOM (Deo Optimo Maiximo)	Yellow / Green	Herbs/Brandy	France
Calvados	Amber	Apple/Brandy	France
Chartreuse	Green & Yellow	Herbs/Brandy	France
Cherry Brandy	Deep Red	Cherry/Brandy	Denmark
Cointreau	Clear	Orange/Brandy	France
Crème de Cacao	Dark Brown	Chocolate, Vanilla/Rum	France
Drambuie	Golden	Heather, Honey, Herbs/Whisky	Scotland
Grand Marnier	Amber	Orange/Brandy	France
Glavya	Golden	Herbs, Spice/Whisky	Scotland
Kirsch	Clear	Cherry/Neutral Spirit	Scotland
Kahlua	Pale Chocolate	Coffee/Rum	Mexico
LIQUEUR	COLOUR	FLAVOUR / BASE SPIRIT	COUNTRY
Kummel	Clear	Caraway seeds/Neutral Spirit	East European Countries
Maraschino	Clear	Maraschino Cherry	Italy
Parfait Amour	Violet	Violet, Lemon peels, Spices	France/Holland
Sambuca	Clear	Liquorice/Neutral Spirit	Italy
Slivovitz	Clear	Plum/Brandy	East Europe

Southern Comfort	Golden	Peaches/Oranges/Whisky	United States
Strega (The Witch)	Yellow	Herbs, Barks, Fruit	Italy
Tia Maria	Brown	Coffee/Rum	Jamaica
Van der Hum	Amber	Tangerine/Brandy	South Africa

USES OF LIQUEURS

- After dinner drink- good for digestion
- Cocktail ingredient
- For specialty coffees
- For making desserts
- For flavouring ice creams and chocolates
- Sorbet can be made with liqueurs
- Served in liqueur glasses (30ml)

13. What is tobacco? Explain its production process And its parts?

14. What are the termed used to indicate the color of the wrapper of cigar? Explain.

Ans:- Tobacco

Tobacco is a plant whose leaves are used for the production of cigarettes and cigars. It is a fastidious plant that requires a proper soil and a moderate climate.

It is an annual plant, i.e. it has only one crop a year. It is grown in countries with a tropical or semitropical temperatures such as India, Cuba, Java, Jamaica and Philippines. The leading producers of tobacco are China, India, Brazil, Russia and the USA.

Methods of curing tobacco

There are two methods of curing tobacco as:

Fermentative method:

In this method, the tobacco leaves are hung in the shed and heat treatment is given at 78°C for 4 to 5 day and is left for fermenting between 3 to 4 weeks, till it turns dark brown, glossy and pliable.

2. Non-fermentative method:

In this method, the leaves are dried in the sun for 4 to 5 days. Some moisture in the air is essential. After curing in the sun, the leaves are subjected to a higher temperature for a short period of time to retain the light yellow color.

Types of Tobacco leaves

The various types of tobacco leave.

- Virginia tobacco
- Latakia tobacco
- Perique tobacco
- Pipe tobacco
- Turkish tobacco
- Egyptian tobacco

Cigarettes

A cigarette is a small roll of finely cut tobacco leaves wrapped in a cylinder of thin paper for smoking. To make a cigarette, machine rolls the tobacco in a small tissue paper, gums the paper ends and cut the rolls in required sizes. It is then dried for 24 hours before packaging mechanically.

Parts of cigarette

There are basically three parts of cigarettes as follows:

- Wrapper (special tissue paper)
- Filler (inner core of the cigarette)
- Filter (optional)

Service of cigarette

- Never serve the cigarette packets by hand to the customer.
- Cigarette should be served on a B&B plate/quarter plate with a doily or a napkin.
- The packet should be opened with a couple of sticks pulled out.
- The server should stand by with a matchstick or a lighter to light the cigarette. If the guest asks to leave intact, it should be placed beside the packet of cigarette.
- The waiter should ensure that the ashtray in good condition is laid on the table.

Famous brands of cigarette

- American: Camel, Pallmall, Chesterfield, Kent
- English: Thon Player's Special, 555 Dunhill, Benson & Hedges
- Mentholated: Cool, Salam
- Double Filtered: Philip Moris
- Nepal: Surya, Shikhar, Khukuri, Yak, etc.

Cigar

The cigar is a tightly rolled bundle of dried and fermented tobacco. It refers to a cylindrical roll of tobacco for smoking, which is made from refined and perfumed the best quality of tobacco leaves.

Cigars are produced with the help of wooden mold (Tropedor) in which the cigar could be kept into any desired style. The cigar is bigger than a cigarette in a cylindrical shape. It should be firm, smooth and even to touch. The best quality of tobacco leaves for cigars are grown in Cuba, Java, Jamaica and West Indies. The best hand-made cigars come from Havana of Cuba. Cigars are formed by using three types of tobacco leaves, i.e. a cigar is composed of three parts

1. **Filler:** These are broken or crushed leaves which form the center of the cigar. It is used inside the body of the cigar because of its sweet flavor and burns evenly. It occupies 85% of the cigar.
2. **Binder:** These are small leaves which are bound to the filler and a special type of glue is used to bind these leaves in a cigar. This holds the filled tobacco leaves together and consists 10% of the cigar. The filler and the binder are together called the bunch.
3. **Wrappers:** It is used for outer covering or wrapping of cigar representing 5% of the cigar. It has high-quality big leaves that are smooth, thin and uniform in color.

Quality of cigar / selecting a cigar/ Judging a Cigar

- A first-grade cigar produces a firm grayish ash, which will hold a long time before falling. A whitish ash denotes a mid cigar, while a darkish ash indicates a strong cigar.
- It should be firm, smooth and even to touch. Cigars are also judged by their appearance, touch, shape, and aroma.
- The strength of the cigar is mainly determined by the filler.
- Another way of testing the cigar is pressing it between the fingers- it should not break.

Smoking of cigar

- The cigar should be smoked slowly and gracefully.
- The 'V' - Shaped end should be in the mouth.

- The end of the cigar should be pierced or cut with care and never bitten.
- The tip off other ends should be lit with a match stick and not with a cigarette lighter, as the fumes from a cigarette lighter may affect its taste.
- The butt-end is bitter with oil and tannin and therefore never smoke to the end.

Service of cigar

- Cigars should be offered in their own boxes and allow the guest to choose his own.
- The box should have a print of type of cigar.
- After the guest chooses the cigar, remove the paper band/ cigar wrapper band.
- Offer the piercer or cutter and the matchbox. If the cigar isn't cut, "a clean V" is suggested to allow the ease of smoking.

Storage of cigar

- All tobacco should be stored in a dry place at an even temperature.
- Cigars are usually stored in a glass case inside a restaurant.
- Cigars are best preserved in their boxes made up of cedar wood.
- The best temperature should be around 65-70°F.
- Cigars should never be refrigerated as it dries and ruins the tobacco.

Classification of cigar

Cigars come in various sizes and color. A normal cigar is 14cm in length and 4cm in girth. Cigars are classified as follow:

1. On the basis of Size and Shape

A cigar shape can vary greatly in size from brand to brand, so describing a cigar by its size as well as a shape is important.

PAREJOS

Parejos are straight-sided cigars.

- Corona
- Petit Corona
- Churchill
- Robusto
- Corona Gorda
- Double Corona
- Panetela
- Lonsdale

FIGURADOS

Those cigars are called figurados, and they include any cigar that is not a straight-sided cylinder.

- Pyramid
- Belicoso
- Torpedo
- Perfecto
- Culebra
- Diadema

2. On the basis of Color

Cigar wrappers come in a wide array of colors, from the palest of greens and yellows to dark black.

- Double Claro (also called Candela)

- Claro
- Colorado Claro
- Colorado
- Colorado Maduro
- Maduro
- Oscuro

15. Classify cocktails and explain each of them with at least 2 examples with their recipes.

Ans:

COCKTAILS

Cocktails are mixed drinks that have become popular since the first quarter of the 20th century. It is claimed that the first recipe for a cocktail was lemon juice and powdered mixers, appreciated by Emperor Commodus in the second century AD.

One of many popular notions on the birth of the word cocktail is that during the American War of Independence, in 1779, an innkeeper, Betsy Flanagan of Virginia prepared of chicken she stole from a neighbor who was pro British. She then served the French soldiers with mixed drinks decorated with the feathers from the birds. Her merry French guests toasted her with the words *Vive le cocktail*. Since then the word cocktail was used to mean the mixed drinks. This is of course one of the stories.

The word cocktail was first described in an American magazine *Balance* as 'a mixture of spirits, sugar water and bitters' in 1806.

The cocktail gained ground and popularity in the USA, especially during the Prohibition period. The production, transportation and sale of alcoholic beverage were banned in the USA from 1920 to 1933 due to the pressure from religious and political thinkers.

A cocktail is normally a short drink of 3 ½ -4 fluid ounces-anything larger being called a 'mixed drink' or a 'long drink'.

CLASSIFICATION OF COCKTAILS

It is estimated that there are over 10 thousand mixed drinks and cocktails in use.

Iced drinks can be roughly divided into four groups

1. **Aperitif:** These stimulate the Appetite. They must therefore be appealing to the eye. Broadly speaking, these drinks are usually made from wines mixed with spirit.
2. **Cocktail:** This the largest group of all, and consists of all short shaken mixed drinks. They should contain a spirit base, coloring and flavouring ingredient or other modifying agent
 - **Long drinks:** These are served in tall tumblers such as High Balls ,or Collins glass. It is more than 120ml (4fl oz) in which the alcohol content has been diluted.
 - **Short drinks:** Mixture of varying strength ; volume should not increase 120ml (4fl oz)
3. **Stimulants:** Instead of going to the doctor, if one has a hangover the bartender will prescribe cocktails or mixed drinks. They are also described as 'Pick me ups'.

COMPONENTS OF COCKTAIL:

COCKTAILS HAVE THE FOLLOWING COMPONENTS:

Base: The major alcoholic drink used in the preparation of a cocktail is called base, which is usually a spirit. Most cocktails are built around spirits. If a cocktail has two or more alcoholic drinks the quantity of the base generally will be more than the other. If two alcoholic drinks are used in same quantity, then the one with the higher that is the spirit is considered as the base. If a cocktail has equal quantities of different spirits then any one of the spirit can be taken as the base.

Modifier: These are complimentary ingredients added to modify or enhance the flavours. Spirits, aromatized, wines beer, fruit juices, soda, cream, liqueurs, water etc.

Flavoring, Coloring and Sweetening Ingredient: A drink might have very small quantities (few drops) of one or more flavouring and sweetening ingredients to make it different from other drinks. A cocktail can be made without these ingredients.

Garnish: Many drinks have garnish. They are part of the product. It should be remembered that some drinks do not have standard garnish and it is advisable to serve without any garnish, instead of trying out different garnishes and spoiling the real flavour and value of the drink.

METHODS OF MAKING COCKTAIL

Cocktails are made in any of these following methods according to the type of modifier ingredients

Building: It is made by pouring the ingredients one by one in the glass in which it is to be served. If ice is required, it is placed first before adding the ingredients.

Stirring: refers to mixing of the ingredients with ice by stirring quickly in a mixing glass with a stirrer and then straining to an appropriate glass. It is done very quickly to minimize the dilution.

Shaking: It is the mixing of ingredients thoroughly with ice by shaking them in Cocktail shaker and straining into appropriate glasses. Effervescent drinks should never be shaken.

Blending: This method is used for combining fruits, solid foods, ice etc in a electric blender. Any drink that can be shaken can be blended. It is a suitable method for making large quantity of mixed drinks.

Layering: This method is used when the ingredients used are of different colour flavour and density. One ingredient is floated over the other by pouring gently over the back of the spoon into straight-sided glass.

POPULAR STYLES OF MIXED DRINKS

S.No	Style	Description	Method/Glassware
1	Collins	Ice, Sprit, lemon, sugar, syrup, soda	Build/shake; Collins
2	Coolers	Ice, Sprit or wine, Syrup, Soda/ginger ale/ Any carbonated drink	Build; Collins/highball
3	Rickey	Ice, sprit, fresh lime soda	Build; highball/old fashioned
4	Old-fashioned	Sprit Sugar, bitters, cherry, and orange for Garnish Sugar, bitters, ice whisky. It is simply Whiskey over the ice without any mixer. It is It is sweetened, flavoured, and garnished. Sugar cube is moistened with splash of soda or Water and bitters and then muddled with bar Spoon, filled with ices, quantity of spirit added And stirred quickly. Garnished with cherry, Orange Peel, or lemon	Build; old-fashioned
5	Mint julep	Bourbon, fresh mint, sugar, shaved ice It is a popular American drink. Sprigs of Mint are placed in a frosted glass with a spoonful of sugar and muddled with the base of the bar spoon. Measure of bourbon whiskey is added and the glass is filled with plenty of ice. Gin, vermouth, garnish.	Build; highball
6	Martini	Gin, vermouth, garnish It is the most famous of all cocktails. The Drink was first made in 1860 in New York And the original recipe had gin, vermouth Maraschino and bitters. It was modified to 2 parts of gin to 1 part of vermouth in the Early 1900s and in the 1940s it was made Using 4 parts of gin to 1 part of vermouth And now it is 9 parts of gin to 1 part of Vermouth.	Stir; cocktail glass

16. Explain manufacturing process of tequila with 4 brands name

Ans:

TEQUILA

- Believed to be the first spirit made in the Americas
- Jalisco town of tequila
- National drink of Mexico
- Legally made in and around the town of Tequila
- Made from a cactus: **agave tequilana weber / azul**
(also known as the Blue Agave / Century Plant / American Aloe / Mezcal)

HARVESTING

- Looks like pineapple, locals call pina.
- Harvested by *jimadors*.
- The spiky leaves are removed to get to the heart of the fruit known as pina.
- It weighs 40-70 pounds.

MANUFACTURING PROCESS

The plant takes about 10-12 years to mature



The 'pineapple' is split and oven-steamed



Sweet sap (**aguamiel**) is extracted and yeast is added



Fermentation takes about 2½ days



Distilled twice in pot still



Diluted with distilled water



- Silver (unaged ones are bottled immediately)
 - Aged ones take on a golden hue

Composition

- By law Minimum 51% blue agave
- **TWO TYPES**
- **Mixto** – It is tequila distilled from wash obtained from a minimum of 51% of agave tequilana sugar and maximum of 49% of other sugar.
- **100% Agave** – This tequila has 100% distillate from agave tequila weber.

CATEGORIES

- **JOVEN ABOGADO** – ‘Young and Adulterated’. Not aged, Not from 100% agave. Example of *Mixto*.
- **BLANCO (Plata/Silver)** – Maximum aging 2 months. Generally un-aged.
- **REPOSADO (Rested/Aged)** – Rested for a period of two months to one year.
- **ANEJO (Aged)** – Aged for minimum of one year but less than three years.
- **EXTRA ANEJO (Extra Aged)** – Aged minimum three years in oak casks.
- **ORO (Gold)** – It is a blend of *plata* with *reposado*. Often caramel is added.

BRAND NAMES

- JOSE CUERVO
- SAUZA
- SAUZA ESPECIAL
- PEPE LOPEZ
- ARANDAS
- 1800
- ESPOLON
- AZTECA
- PARTIDA
- EL TOSORO DON FELIPE
- MONTEZUMA
- CAMINO

POPULAR TEQUILA COCKTAILS

- LONG ISLAND ICE TEA
- TEQUILA SUNRISE
- TEQUILA CRUDA

17. How vodka is made? Explain briefly with 4 international brand name with country of origin

Ans:

VODKA

DEFINITION

Vodka is a neutral spirit distilled from any fermented material and treated in a way so as to be without any distinctive colour, taste or aroma.

Origin

- Russia (17th century)
- Spread to Finland, Poland and rest of North-East Europe

Vodka has come from the Russian word “WODKA” meaning, ‘Little Water’

SOURCE

- Most plentiful and least expensive grains
- Principal grain is CORN
- Other grains used are wheat, rye, etc.

MANUFACTURING PROCESS

Distilled at more than 95% v/v



Filtered through alternate layers of vegetable charcoal (Siberian birch) and quartz sand



Dilution with distilled water



Ageing not required

FLAVOURED VODKAS**Zubrowka**

- Flavored with Zubrowka grass from the forests of eastern Poland
- Yellowish tinge & aromatic bouquet
- Exceptionally soft and smooth
- Ice cold – toto - straight

FLAVOURED VODKAS**Starka**

- Means ‘old’
- Aged for about 10 years in oak casks previously used for ageing fine wines
- Amber colour & typically wine-like aroma
- Popular among brandy lovers

Pertsovka

- Dark brown Russian pepper vodka
- Infusion of capsicum, cayenne & cubeb
- Pleasant aroma with a burning taste
- Czar Peter the Great seasoned his vodka with pepper – Russians still enjoy!

Yubileynaya Osobaya

- Flavoured with brandy & honey among other ingredients
- Referred to as Jubilee Vodka

Okhotnichya

- Flavoured with many herbs
- Definite aroma of heather honey
- Referred to as Hunter’s Vodka

BRAND NAMES

- Smirnoff
- Nikolai
- Vladivar
- Bolshoi
- Bolskaya
- Stolichnya

- Moscovskaya
- Newyorskaya

18. Explain the process of 'method champenoise'

Ans:

MÉTHODE CHAMPENOISE

Pressing

- Picked and sent to the hydraulic press – pressed four times.
- Only the first two pressings are used – rest for **coteaux champenoise** (still Champagne).

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First fermentation

- In cask – starts about 8 hours after pressing.
- A dry, still wine is produced. Temperature maintained at 18-20° C.
- Left in cask for about 5 months – racked and fined during this period.

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Assemblage

- Any no. of wines from around 250 villages.
- Highly paid wine-tasters/blenders ensure brand-continuity.

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Coupage / Dosage de tirage

- Yeast and rock candy (from sugarcane) dissolved in old wine (liqueur de tirage).
- Added for secondary fermentation which is carried out in bottle.

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Bottling & Secondary Fermentation

- Immediately after dosage, bottled & corked – secured with a wire muzzle and agrafé.
- Bottles placed mis sur latte in the natural chalky caverns – constant cold temperature ideal for Secondary Fermentation.
- Temperature maintained at 10-12° C.
- Secondary fermentation starts after about six weeks.
- Mis sur latte for about 2 to 5 years (minimum 1 year for non-vintage and 3 years for vintage champagnes).

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Remuage

(removal of debris by the remneur)

- Bottles placed at 45° on the pupître.
- Everyday the remneur grasps and shakes each bottle → sediments dislodged.
- Remneur changes the angle slightly.
- In 3 to 5 months the bottles are brought to sur le pointe.

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Dégorgement

- The neck is frozen.
- The muzzle is taken off and the debris go out like a bullet.
- Some wine is lost.



Dosage

- Similar wine + sugar (as, and if, required) = liqueur d'expédition
- Added to replace lost wine.



Final Dressing

- Corked finally and permanently.
- Wired and dressed in foil.
- Regularly shipped to more than 160 countries.*

SWEETNESS IN CHAMPAGNES

Brute / Nature

Very dry: 0.5% to 1.5% sugar

Très Sec

Fairly dry: 1.5% to 3% sugar

Sec

Dry or medium sweet: 3% to 5% sugar

Demi Sec

Quite sweet: 5% to 7% sugar

Doux

Very sweet: 7% or more sugar

CHAMPAGNE BOTTLES

Quart: 185 ml

Pint: 375 ml

Regular / Standard: 750 ml

Magnum: 2 bottles

Jeroboam: 4 bottles

Rheoboam: 6 bottles

Methuselah: 8 bottles

Salmanazar: 12 bottles

Balthazar: 16 bottles

Nebuchadnezar: 20 bottles

19. List out and explain what are the different books used in beverage control system.

Ans: The word beverage has originated from a French verb 'boire' which means to drink.

Purchasing

The purchasing of alcoholic and non-alcoholic beverages, like that of foodstuffs, has the aim to purchase the very best quality of items, at the lowest price for a specific purpose. The purchasing of beverages should be undertaken by the purchasing manager together with such experts as the food and beverage manager, the head cellar-man and the head wine waiter. As beverages will frequently contribute more to profits than foods, and as they require considerably fewer staff to process them into a finished product for the customer, it is essential that adequate attention is given to this area. What is important to bear in mind always when purchasing beverages is that expensive products or products with pretty labels do not necessarily indicate or guarantee superior quality.

With beverage purchasing the following points are generally noticeable:

1. There are fewer and often restricted sources of supply.
2. The high value of beverage purchases.
3. The free advice and assistance with purchasing are given by the wine and spirit trade.

4. The quality factors are difficult to evaluate and require special training to identify them.
5. There are fewer standard purchasing units than for food.
6. There is an established standard of product. Many items like minerals, spirits, etc. will have standard that will not vary over the years and items such as a well-known wine from an established shipper will be of a standard for a specific year, whereas with food items there may be several grades and a wide range of ungraded items available. In addition, food items may be purchased in different forms such as fresh, chilled frozen, canned, etc.
7. The prices of alcoholic beverages do not fluctuate to the extent that food prices do.

A beverage selected for a wine list would not only have to be on an acceptable quality to members of the selection team, but also to the type of customer served. It should complement the food menu and be available for purchasing over a long enough period and at a price that is competitive. The continuity of supply of any wine should be established before it's added to a wine list.

There are some five main sources of supply that can be used for purchasing beverages and it is most likely that a purchasing manager would use at least two of them. The methods used for purchasing would vary between establishments because of such criteria as the type of customer; the type, size and location of the establishment; the storage facilities available; and the purchasing power of the

Wine shippers

Wholesalers

Beverage Manufactures

Cash & Carry

Auctions

Purchase specification for beverages:

The purpose of a purchasing specification is to set down in writing the standard of a product for a specific use by an establishment. This is then used by the purchasing manager to inform suppliers exactly what is required and is vital information when negotiating prices. It is also invaluable to the receiving and cellar department staff to know what to accept when deliveries are being made.

Unlike purchasing specifications for food, specifications for beverages are much simpler and to understand. The reason is that beverages are sold and purchased by the brand name label of the product, each having a consistent quality and quantity standard of content for each selling unit, e.g. barrels, kegs, bottles, splits.

Receiving of beverages

The objectives for beverage receiving are similar in many ways to those of food receiving. However, as the value of beverage purchases and the ensuing profits from the sale of beverages are high, it is important that due attention is given to the receiving of beverages.

The main objectives are to insure that:

The quantity of beverage delivered matches that which has been ordered. This requires a methodical approach to checking the goods against the purchase order and the delivery note. Items would be in standard units of crates, cases, etc., with standard contents of a specific size. Crates and cases should be opened to check for such things as empty, missing or broken bottles.

1. The quality inspection is simple but again requires a thorough and methodical approach. It involves such things as checking the brand name and label on each item, the alcohol proof, the vintage and shipper, against the delivery note and the purchase order.
2. The prices stated on the delivery note are in accordance with the negotiated prices shown on the purchase order form.
3. When the quantity or quality (or both) of the beverage delivered is not in accordance with the purchase order, or an item is omitted from the order, that a request for credit note is raised by the receiving clerk or cellar man.
4. An accurate record is made in the goods received book recording details of the delivery.
5. An accurate record is kept of all chargeable empties delivered and returned.
6. Deliveries of beverages are timetabled with the suppliers, often to and afternoon, when receiving and cellar staff are normally not so busy and the receiving area is free from other deliveries.

Storing

Once beverages are received they must be removed immediately to the cellar and a tight level of control maintained at all times. The storage of beverage is ideally separated into five areas as follows:

The main storage area for sprits and red wine held at a dry and draught-free temperature 30° C. This area is also used for the general collection and preparation of orders for the various bars and the storage of keg beers when there is a reasonable turnover.

1. A refrigerated area of 10-15° C for the storage of white and sparkling wines.
2. An area held at a temperature of 5° C for the storage of bottle beers and soft drinks.
3. A totally separate area, from those above, for the storage of empty bottles, kegs and crates. This area needs to be as tightly controlled as the beverage storage area, not only because of the returnable value of the crates and bottles, etc., but to prevent free access by bar staff when an 'empty for full' bottle method of issuing is in operation.

The merchandise is unpacked in the cellar and stored correctly (table wines with an alcohol content less than 16% by volume are stored on their sides, bottles of fortified wine, sprits and vintage ports are stored upright) on shelves or racks in the same order as on the standard bottle code/bin list. The objective for preparing a standard bottle code/bin list is to eliminate the confusion of bottle sizes, spelling of names and different brands, and to establish an appropriate starting point for the control of beverages. All requisitions, inventories, wine lists, etc., are related to the code/bin list. An extract from a list could be as follows:

Bin number 100-149 English table wines
 Bin numbers 150-199 Imported white wines
 Bin numbers 200-299 Imported red wines
 Bin numbers 300-399 Sparkling wines
 Bin numbers 400-419 Scotch and Irish whisky
 Bin numbers 420-499 Gin

To avoid confusion, the M is usually assigned for magnums, H for half bottles S for split bottles.

Cellar Records

As the value of cellar stocks is high, it is usual for the following cellar records to be kept.

A cellar inwards book:

This provides accurate reference to all beverages coming into the cellar, and posting data for the cellar man's bin cards. Whenever necessary it is a useful check against the perpetual beverage inventory ledger held in the food and beverage control or accounts office.

Bin cards:

These are provided for each individual type of beverage held in stock and record all deliveries and issues made, the cards being fixed on the shelves or racks against each beverage, the bin card numbers referring to the same bin numbers as the wine list and originating from the standard bottle code list.

Cellar control book:

This provides a record of all daily deliveries to the cellar and the daily issues of each beverage from the cellar to the various bars and should cross-check with the entries on the bin cards and the perpetual inventory ledger held in the food control or the accounts office.

Beverages perpetual inventory ledger:

This master ledger, which is prepared in the control or accounts office, consists of cards prepared for each individual type of beverage held in stock. The purpose is to keep a daily record of any purchases of the separate types of beverages and of the quantities issued from the cellar to each individual bar or other area, and to record a perpetual inventory balance for each item. The information is obtained from the suppliers' delivery notes or invoices (adjusted at times with credit notes) and the daily beverage requisition notes from the different bars. When the physical stocktaking of the cellar is undertaken, the physical stock take figures should match to those in the perpetual inventory ledger.

Ullages and breakages:

It is necessary for any ullages and breakage to be recorded on a standard form, together with an explanation, and countersigned by a member of the food and beverage management department. The frequency of the recording of any ullages and breakages would determine the necessity for management to take corrective action.

The term 'ullage' is used to cover all substandard beverages such as bottles of weeping wines, bottles of wine with faulty corks, unfit barrels of beer, etc., which whenever possible, would be returned to the supplier for replacement. Breakages of bottled beverages usually occur by mishandling by cellar and bar staff.

Empties return book:

Many of the containers of beverages such as crates, kegs, beer bottles, soda siphons, etc. are charged for by the supplier against a delivery. It is therefore necessary that control is maintained on these charged items to ensure that they are returned to the supplier and the correct credit obtained. A container record book is required which records all containers received from the various suppliers, containers returned and the balance matching the stock take of containers.

Hospitality book

This is necessary to record the issue of drinks to the kitchen and other grades of staff as laid down by the company policy.

Issuing of Beverages

Issuing of beverages should take place at set times during the day and only against a requisition note signed by an authorized person, for example head barman, banqueting head waiter, etc. Ideally when the requisition is a large one it should be handed in several hours before the items are required to allow the cellar staff plenty of time to assemble the order together. Requisition notes are usually made in duplicate, one copy being retained by the cellar man so that entries can be made to the cellar records and then it is passed to the control or accounts office, while the second copy is retained by the person who originated the requisition and handed in with the daily takings and other control documents.

The pricing of issues for beverages is different from that for food in that two prices are recorded, the cost price and the selling price. The cost price is recorded to credit the cellar account and for trading account and balance sheet purposes. The selling price is recorded for control purposes to measure the sales potential of a selling outlet using the basic formula:

Opening stock + purchase - Closing stock = Total beverage consumed

Total beverage consumed = Beverage revenue

It should be noted that the above formula may be calculated for the value of stock and purchases either.

1. At cost price in order to compare the usage with the actual sales and to ascertain the profit margin and beverage gross profit.
2. At sales price in order to compare potential sales with the actual recorded sales.

It is usually for the beverage revenue to be different from the sales potential figure because of such factors as a high percentage of mixed drinks being sold or full bottle sales being made over the counter of a bar.

20. What is standard recipe and how it is different portion size.

Ans:

Standardized Recipe Template

Standardized recipes are an important part of a well-managed food service program. A standardized recipe specifically describes the exact, measurable amount of ingredients and the method of preparation needed to consistently produce a high-quality product. The exact procedures, the type of equipment, and the quantity and quality of ingredients are listed.

Advantages of Standardized Recipes:

- Product Quality - Provide consistent high-quality food items that have been thoroughly tested and evaluated.
- Projected Portions and Yield - Accurately predict the number of portions from each recipe and clearly define serving size or scoop. Eliminates excessive amounts of leftovers or substitutions because too little was prepared.
- Cost Control - Better management of purchasing and storage due to exact amount of ingredients specified.
- Creativity - Using standardized recipes supports creativity in cooking. Employees should be encouraged to continuously improve recipes. All changes need to be recorded so they can be repeated the next time the recipe is used.

A standardized recipe includes:

- **Recipe Name / Recipe Card Number / Section / Meal Pattern Contribution** – Include the name of the recipe, the recipe card number, the section that the recipe should be classified under (breads/grains, entrée, etc.) and the contribution that one serving makes toward the child nutrition meal pattern.
Example: Pizzeria Pizza Crust, B-48, Grains, 2.5 servings grain per portion.
- **Ingredients** - Listed in order of preparation and specifies the type of the food used, such as fresh apples; canned corn; macaroni (uncooked); ground beef (raw).
- **Weight and Measures** – The weight and measures of each ingredient used in both weight and volume measure. Note: weighing ingredients is faster, easier and more accurate.
- **Procedure** - Directions on how to prepare the recipe. Include directions for mixing, number and size of pans, cooking temperature and time, and the directions for serving.
- **Yield** – The yield of a recipe should be recorded as the total weight or volume produced per 50 or 100 servings (or other specified number of servings). Example: 50 servings: 23 pounds four ounces or 100 servings: 46 pounds eight ounces or 50 servings: one quart 2 ¼ cups.
- **Serving Size** – List the number of servings that the recipe yields and the portion size to be served.
Example: 50 – ½ cup servings. Consider including the suggested portioning tools to use. Example: 50 – ½ cup servings (No. 8 scoop).
- **Cost per serving (optional)** - Determine the total cost to prepare the recipe and divide by the number of servings prepared to equal the cost of one serving.