

WSET Level 4 Diploma — D5: Fortified Wines

Paper 02 — Answer Key & Explanations

Essay Paper

1. Discuss the role of flor in shaping the styles of Sherry produced in the Jerez region. Explain how biological aging differs from oxidative aging, and analyse how these processes create the spectrum of Sherry styles from Fino to Palo Cortado.

(20 marks)

Marking Points:

- Flor is a film of *Saccharomyces cerevisiae* yeast strains (primarily *beticus* and *montuliensis*) that forms on the surface of wine fortified to 15-15.5% ABV in partially filled American oak butts; it requires nutrients, moderate temperature (15-20C), and alcohol below approximately 16%
- Biological aging under flor: the yeast metabolises glycerol, acetic acid, and residual sugars, producing acetaldehyde (giving the distinctive tangy, apple-like note), lowering volatile acidity, and consuming oxygen to protect the wine from oxidation; the result is pale colour, pungent aromatics, and bone-dry palate
- Fino and Manzanilla: both aged entirely under flor; Manzanilla produced in Sanlúcar de Barrameda where cooler, more humid coastal conditions sustain a thicker, more consistent flor cap, yielding a lighter, more saline style; Fino from Jerez de la Frontera tends to be slightly fuller and nuttier
- Amontillado: begins life as a Fino under flor, then flor dies (naturally or by fortification to approximately 17%) and the wine undergoes further oxidative aging; this dual process gives Amontillado its unique combination of flor-derived pungency and oxidative depth, dried herbs, and hazelnut
- Oloroso: fortified immediately to 17%+ after fermentation, preventing flor formation; aged entirely oxidatively in the solera system; develops dark mahogany colour, rich walnut, toffee, and dried fruit character with a full, weighty palate
- Palo Cortado: the rarest and most debated style; traditionally a wine classified as Fino that lost its flor unexpectedly, then reclassified for oxidative aging; combines the aromatic lift and pungency of Amontillado with the body and richness of Oloroso; modern production sometimes involves deliberate selection
- The solera system: fractional blending across multiple criaderas ensures consistency; age statements on Sherry (VOS 20 years, VORS 30 years) refer to the average age of the blend, not the youngest component
- Specific producers: Gonzalez Byass (Tio Pepe, Del Duque Amontillado VORS), Bodegas Tradicion (Palo Cortado VORS), Equipo Navazos (single-cask releases), Emilio Hidalgo (La Panesa Fino), Valdespino (Inocente Fino, single-vineyard from Macharnudo)

Model Answer:

*Flor yeast is the defining biological agent of Sherry production, a living veil of *Saccharomyces cerevisiae* that draws an absolute stylistic dividing line through the wines of the Jerez region. Whether flor is permitted to develop or deliberately prevented determines the fundamental character of every Sherry style, from the pale, bracing austerity of Fino to the dark, opulent richness of Oloroso.*

*After base wine fermentation, the cellar master classifies each butt according to its character. Lighter, more delicate wines are marked with a single stroke (*una palma*) and fortified to 15-15.5% ABV, a level that permits flor development. Fuller, more robust wines receive a different mark and are fortified to 17% or above, killing any potential for biological aging. This initial classification is the most consequential decision in the bodega.*

*Flor forms as a film on the wine's surface in partially filled 600-litre American oak butts. The yeast strains, primarily *Saccharomyces cerevisiae beticus* and *montuliensis*, consume glycerol, residual sugars, and acetic acid while producing acetaldehyde, the compound responsible for Sherry's distinctive tangy, apple-like, and chamomile-tinged aroma. Critically, the flor cap also consumes dissolved oxygen, protecting the wine beneath from oxidative browning and maintaining its pale straw colour. The flor requires temperatures between approximately 15 and 20 degrees Celsius, adequate nutrients, and alcohol below roughly 16% to remain viable.*

Fino, aged entirely under flor, is the purest expression of biological aging. In Jerez de la Frontera, Fino develops a

moderately full body with almond and dough notes alongside the characteristic pungency. Valdespino's *Inocente*, sourced exclusively from the chalky albariza soils of the Macharnudo vineyard, exemplifies the site-specificity possible within the style. In Sanlúcar de Barrameda, where cooler maritime humidity sustains a thicker, more consistent flor cap, the equivalent wine is classified as *Manzanilla*, typically lighter-bodied with marked salinity and a chamomile character. The distinction between the two towns is legally protected and stylistically genuine.

Amontillado represents the intersection of both aging regimes. A wine that begins its life as a *Fino* under flor transitions to oxidative aging when the flor either dies naturally, as nutrients are exhausted in older solera stages, or is deliberately killed by further fortification to approximately 17%. The resulting wine carries the acetaldehyde-driven aromatic lift of its biological phase alongside the hazelnut, toffee, and dried herb complexity of oxidative maturation. Gonzalez Byass's *Del Duque Amontillado VORS* (average age over 30 years) demonstrates the extraordinary depth this dual process can achieve.

Oloroso bypasses flor entirely. Fortified above 17% from the outset, it ages purely oxidatively in the solera system, developing dark mahogany colour, concentrated walnut and dried fruit aromas, and a rich, full-bodied palate. The solera's fractional blending, where wine is progressively drawn from the oldest stage and refreshed from younger criaderas, ensures consistency while building layered complexity.

Palo Cortado remains Sherry's most enigmatic category. Traditionally, it arose when a *Fino* unexpectedly lost its flor, and the cellar master reclassified the butt for oxidative aging. The resulting wine, having absorbed some biological character before shifting to oxidative maturation, combines the aromatic finesse of *Amontillado* with the body and power of *Oloroso*. Bodegas Tradicion's *Palo Cortado VORS* and the single-cask selections of *Equipo Navazos* have brought renewed attention to this rare style. Whether *Palo Cortado* is today always a product of chance or sometimes of deliberate selection remains a subject of debate within the trade, but the finest examples are among the most complex wines produced anywhere in the world.

2. Explain why Madeira is often described as the most resilient and long-lived of all wines. Discuss the production techniques that contribute to this durability, and assess Madeira's current position in the fine wine market.

(20 marks)

Marking Points:

- The estufagem process: heating wine in large tanks (estufas) at 45-50°C for a minimum of 3 months simulates the historical heating of wines in ships' holds crossing the tropics; accelerates Maillard reactions that produce the characteristic caramel, toasted nut, and dried fruit flavours while rendering the wine essentially immune to further heat damage
- Canteiro method: the superior alternative used for finer wines; casks are stored in warm lofts (canteiros) for years or decades, allowing slow, natural heating; produces more refined, complex results than estufagem
- Fortification and acidity: high residual acidity (often 7-9 g/L tartaric equivalent) combined with fortification to 17-22% ABV creates a wine with extraordinary chemical stability; the combination of high acid, high alcohol, and heat treatment makes Madeira virtually indestructible
- Grape varieties and sweetness styles: Sercial (dry, high acidity, citrus and almond), Verdelho (medium-dry, smoky and honeyed), Bual/Boal (medium-sweet, caramel and dried fruit), Malmsey/Malvasia (sweet, rich and luscious); Tinta Negra used for the bulk of production across all sweetness levels
- Extraordinary longevity: Madeiras from the 18th and 19th centuries remain drinkable and often exceptional; examples such as Barbeito's 1795 Terrantez or the Blandy's 1920 Bual demonstrate that well-stored Madeira can outlive virtually every other wine style
- The solera system was historically used but now vintage-dated wines (Frasqueira/Garrafeira, minimum 20 years cask aging) represent the quality pinnacle; single-vintage bottlings from houses like Blandy's, Henriques & Henriques, and Barbeito command growing collector interest
- Market challenges: tiny production volume (approximately 3 million litres annually), limited consumer awareness outside specialist circles, competition from Port and Sherry, and the dominance of cheaper Tinta Negra blends that undermine the category's fine wine credentials
- Recent revival: growing recognition among sommeliers and collectors; the Madeira Wine Institute's efforts to protect vintage stocks; renewed planting of noble varieties; producers like Barbeito leading quality-focused innovation

Model Answer:

Madeira's reputation as the most resilient wine in the world is not mere hyperbole but a demonstrable consequence of its unique production process. No other wine undergoes deliberate, sustained heating as a fundamental part of its creation, and it is this thermal conditioning, combined with high acidity and fortification, that gives Madeira a durability unmatched by any other style.

The historical origins of Madeira's heat treatment are well documented. Wines shipped from the island in the 17th and 18th centuries crossed the tropics in the holds of sailing vessels, where temperatures soared. Merchants discovered that these 'vinho da roda' (round-trip wines) returned transformed: more complex, more stable, and more desirable. The modern estufagem process replicates this effect by heating wine in large tanks (estufas) to 45-50 degrees Celsius for a minimum of three months. This accelerates Maillard reactions between sugars and amino acids, generating the characteristic burnished caramel, toasted nut, and dried orange peel flavours while fundamentally altering the wine's chemistry. A wine that has been deliberately heated to near-pasteurisation temperatures is essentially immune to subsequent heat damage, a quality no other fine wine possesses.

For finer wines, the canteiro method is preferred. Casks are placed in the upper floors of lodges in Funchal, where sun-warmed rooftops create naturally heated environments. Here the wine ages slowly over years and decades, developing complexity through gradual oxidative and thermal maturation far subtler than the estufagem's forced acceleration. The finest vintage Madeiras, classified as Frasqueira (minimum 20 years in cask from a single harvest), are exclusively canteiro-aged.

The chemical architecture of Madeira reinforces its longevity. Fortification to 17-22% ABV with grape spirit provides a high-alcohol preservative environment. Equally important is the wine's formidable acidity: levels of 7-9 g/L tartaric acid equivalent are common, particularly in the drier styles made from the Sercial grape. This combination of high acid, high alcohol, and heat-induced chemical stability creates a wine with an essentially indefinite lifespan under reasonable storage conditions. Madeiras from the 18th century remain not merely drinkable but genuinely impressive. Barbeito's 1795 Terrantez and Blandy's 1920 Bual are regularly cited as evidence that Madeira can outlive any wine, including the greatest Vintage Ports and aged Sherries.

The four noble grape varieties define the quality spectrum. Sercial, grown at higher altitudes, produces the driest style with searing acidity, citrus peel, and almond notes. Verdelho yields medium-dry wines with smoky, honeyed complexity. Bual (Boal) occupies the medium-sweet register with rich caramel and dried apricot character. Malmsey (Malvasia), the sweetest, offers luscious tropical fruit, toffee, and spice. However, the workhorse variety Tinta Negra accounts for the vast majority of production, used across all sweetness levels for the less expensive blends that dominate commercial volumes.

Madeira's position in the fine wine market remains paradoxically strong in quality and weak in visibility. Annual production of approximately 3 million litres is minuscule compared to Port or Sherry. Consumer awareness outside specialist wine circles is limited, and the prevalence of inexpensive cooking Madeira actively undermines the category's prestige. Yet there are signs of revival. Sommeliers have championed aged Madeira as a uniquely versatile pairing partner, from consomme to pecan tart. Collector interest in vintage-dated bottlings is rising, driven by houses like Barbeito (whose single-cask programme has set new standards), Blandy's, and Henriques & Henriques. The Madeira Wine Institute's efforts to protect remaining vintage stocks and encourage replanting of the noble varieties suggest a category beginning to realise its potential, even if the road from specialist curiosity to mainstream recognition remains long.

3. Analyse the commercial challenges currently facing the fortified wine category. With reference to Port, Sherry, and Madeira, discuss the factors driving decline in consumption and evaluate the strategies producers are adopting to secure the category's future.

(20 marks)

Marking Points:

- Structural decline in consumption: global fortified wine volumes have fallen steadily since the 1970s-80s peak; changing drinking habits favour lower-alcohol, lighter styles; younger consumers associate fortified wines with an older generation
- Port: total shipments have declined from approximately 115 million litres in the early 2000s to under 85 million litres; the domestic Portuguese market and traditional export markets (UK, France) are contracting; strategy has shifted toward premiumisation, with aged Tawny and single-quinta Vintage Ports targeting higher-value, lower-volume sales
- Sherry: dramatic collapse from over 150 million litres in the 1970s to approximately 30 million litres; decades of overproduction of low-quality sweetened cream Sherry damaged the category's reputation; the Consejo Regulador and boutique producers (Equipo Navazos, Bodegas Tradicion, El Maestro Sierra) are rebuilding through en rama releases, VORS bottlings, and sommelier advocacy
- Madeira: tiny production base (~3 million litres) limits visibility; cooking Madeira reputation undermines fine wine positioning; revival led by quality-focused producers (Barbeito, Blandy's) and growing recognition among wine professionals

- Premiumisation as a shared strategy: all three regions are moving toward higher-quality, higher-priced offerings; aged Tawny Port, VORS Sherry, and vintage Madeira command prices that reflect production costs and quality but require significant consumer education
- Cocktail and gastronomy as entry points: Sherry's resurgence in the cocktail bar (Sherry Cobbler, Rebutito); Port as a dessert and cheese pairing staple; Madeira's versatility in fine dining (sommeliers as advocates); these channels introduce fortified wines to new audiences
- Competition from other categories: craft spirits, natural wines, premium sake, and low/no-alcohol beverages all compete for the same consumer attention and spend; fortified wines must articulate a distinct value proposition
- Climate change and vineyard economics: rising temperatures in the Douro, Jerez, and Madeira threaten grape quality; labour costs for steep-slope viticulture (Douro terraces, Madeira poios) are rising with rural depopulation; these pressures increase production costs in a market of declining demand

Model Answer:

The fortified wine category faces a confluence of structural, demographic, and economic challenges that have driven decades of declining consumption. Yet within this broad contraction, pockets of genuine revival suggest that the future of Port, Sherry, and Madeira may lie not in recapturing lost volume but in redefining their position within the fine wine and hospitality landscape.

The scale of decline is sobering. Global fortified wine consumption has fallen steadily since its peak in the 1970s and 1980s. Sherry's trajectory is the most dramatic: shipments collapsed from over 150 million litres annually in the 1970s to approximately 30 million litres today, a fall of 80%. Decades of overproduction of low-quality sweetened cream Sherry, sold cheaply in the UK market, catastrophically damaged the category's reputation. Port shipments have declined from approximately 115 million litres in the early 2000s to under 85 million litres, with contraction in both the domestic Portuguese market and traditional export markets including the UK and France. Madeira, with annual production of only 3 million litres, operates on a scale so small that its commercial challenges are more about visibility than volume management.

Several factors underpin this decline. Changing consumer preferences have shifted decisively toward lower-alcohol, lighter-bodied wines and spirits-based cocktails. Health consciousness and government guidelines have made high-alcohol products less fashionable. Crucially, younger consumers in key markets have no inherited relationship with fortified wines: the post-dinner Port or the aperitif Sherry that defined hospitality for previous generations holds little cultural resonance for drinkers in their 20s and 30s. The rise of competing categories, from craft spirits and premium sake to natural wines and the growing low-and-no-alcohol segment, has further fragmented consumer attention and spend.

Against this backdrop, producers across all three regions have converged on premiumisation as their primary survival strategy. In the Douro, houses such as Taylor's, Niepoort, and Graham's have invested heavily in single-quinta Vintage Ports and premium aged Tawnies. The logic is straightforward: if volumes are shrinking, value per bottle must rise. Taylor's Scion, a very old Tawny released at over 300 euros per bottle, exemplifies the shift. In Jerez, the resurgence has been led from below by boutique producers. Equipo Navazos's single-cask releases, Bodegas Tradicion's VORS range, and El Maestro Sierra's old-solera bottlings have demonstrated that Sherry at its finest can stand alongside any wine in terms of complexity. The Consejo Regulador's en rama programme, releasing minimally filtered Finos and Manzanillas at their most vivid, has generated genuine excitement among sommeliers and wine professionals. In Madeira, Barbeito's Ricardo Freitas has led a quality revolution through single-cask and single-variety bottlings that challenge the category's image as a cooking wine.

Gastronomy and the cocktail renaissance have provided important entry points. Sherry has found a natural home in the craft cocktail movement: the Sherry Cobbler, Rebutito, and Sherry-based Martini variations appear on bar menus globally. Port's classical pairings with Stilton, dark chocolate, and walnuts remain powerful, while aged Tawny's affinity with Asian cuisines (particularly Cantonese and Japanese) offers untapped potential. Madeira's extraordinary versatility, from consomme to dessert, has made it a darling of progressive sommeliers, though this enthusiasm has yet to translate into mainstream consumer demand.

The challenges ahead are not purely commercial. Climate change poses direct viticultural threats. The Douro Valley already records some of the highest vineyard temperatures in Europe, and rising heat stress may increasingly compromise grape quality or force earlier harvests. In Jerez, water scarcity threatens the albariza soils' capacity to sustain viticulture. On Madeira, the steep terraced vineyards (poios) face labour shortages as rural populations decline, pushing production costs higher in a market that resists price increases.

The fortified wine category will almost certainly never return to its former volumes. But the trajectory toward smaller production of higher quality, combined with energetic advocacy by sommeliers and specialist importers, offers a viable path.

The most resonant comparison may be with Cognac and single malt Scotch, categories that survived volume decline by repositioning as luxury goods. Whether Port, Sherry, and Madeira can complete a similar transformation depends on sustained investment in quality, effective storytelling, and the willingness to let go of the mass market that once defined these wines.

4. Compare and contrast the aging philosophies behind Ruby and Tawny Port. Discuss how each style is produced, the role of wood aging versus bottle aging, and the implications for quality, longevity, and market positioning.

(20 marks)

Marking Points:

- Ruby philosophy: preserve primary fruit character through minimal oxidative exposure; aged in large wooden vats (balseiros of 20,000+ litres) or stainless steel to limit oxygen contact; bottled relatively young to retain deep colour and vibrant berry fruit
- Tawny philosophy: embrace controlled oxidation through extended aging in small 550-litre casks (pipas) in the warm lodges of Vila Nova de Gaia; progressive colour shift from ruby to amber-tawny as pigmented tannins polymerise and precipitate
- Vintage Port as the pinnacle of the Ruby family: declared only in exceptional years (approximately 3-4 per decade), bottled after 2 years in wood, then aged for decades in bottle under reductive conditions; develops tertiary complexity slowly
- Aged Tawny (10, 20, 30, 40 Year) as the pinnacle of the Tawny family: indication of age is an average, maintained by a solera-like fractional blending system to ensure house style consistency across batches
- Flavour profile divergence: Ruby retains blackberry, plum, and chocolate notes with firm tannins; Tawny develops dried fruit, caramel, butterscotch, walnut, and orange peel with softer, more integrated tannins
- Colheita as an underappreciated category: a Tawny from a single vintage, aged in cask for a minimum of 7 years, offering both vintage identity and oxidative complexity
- Commercial positioning: Vintage Port commands the highest auction prices and collector attention (Taylor's, Fonseca, Dow's); 20 Year Tawny (Niepoort, Ramos Pinto, Graham's) offers immediate drinkability and versatility with food
- Temperature sensitivity: Ruby and Vintage Port require careful cellaring and decanting; Tawny is stable once bottled and can be served slightly chilled, making it more accessible for on-trade and hospitality

Model Answer:

Ruby and Tawny Port represent two fundamentally opposed philosophies of aging, each yielding wines of great distinction but through entirely different mechanisms. Understanding the divergence between reductive and oxidative maturation is central to appreciating the full spectrum of Port wine.

Ruby Port is built on the principle of preserving primary fruit character. After fermentation is arrested by the addition of aguardente (grape spirit at 77% ABV), the young wine is transferred to large wooden vats (balseiros of 20,000 litres or more) or increasingly to stainless steel tanks. The key is minimal oxygen exposure: the high volume-to-surface-area ratio of these vessels limits oxidative development, keeping the wine deep purple-ruby in colour with vibrant blackberry, plum, and dark chocolate aromatics. Reserve Ruby and Late Bottled Vintage (LBV) represent progressions within this family, with slightly longer wood aging (4-6 years for LBV) adding some complexity while retaining the core fruit-driven identity.

The apex of the Ruby philosophy is Vintage Port. Declared only in exceptional vintages, approximately three to four times per decade, Vintage Port spends just two years in wood before bottling with a driven cork. The wine then evolves over decades under strictly reductive conditions, developing extraordinary tertiary complexity: leather, violets, graphite, and dried herbs layered over the original fruit. A mature Vintage Port, such as Taylor's 1963 or Fonseca 1994, represents one of the longest-lived wine styles in the world, with a drinking window that can extend beyond 50 years. This demands careful cellaring, decanting to remove the heavy sediment, and a degree of collector commitment that positions Vintage Port firmly in the fine wine market.

Tawny Port inverts this logic entirely. The young wine is transferred to small 550-litre casks called pipas and aged in the lodges of Vila Nova de Gaia, where summer temperatures can exceed 30 degrees Celsius. This combination of high surface-area-to-volume ratio and warmth accelerates oxidative aging. Over years and decades, the colour shifts progressively from ruby through garnet to a pale amber-tawny. The anthocyanins polymerise and precipitate, while acetaldehyde-driven reactions generate the characteristic aromas of dried apricot, caramel, butterscotch, walnut, and orange peel. Tannins soften and integrate, producing a wine of silky texture.

The aged Tawny categories (10, 20, 30, and 40 Year) are blends designed to represent an average age, maintained through a fractional blending system akin to a solera. This allows houses to maintain remarkable consistency across

bottlings. Niepoort's 20 Year, Ramos Pinto's Quinta do Bom Retiro 20 Year, and Graham's 20 Year are benchmarks, offering exceptional complexity at prices significantly below comparable Vintage Ports. Colheita, a single-vintage Tawny aged a minimum of seven years in cask, occupies a fascinating middle ground, combining the vintage identity of Vintage Port with the oxidative character of aged Tawny.

Commercially, the two styles occupy distinct niches. Vintage Port dominates auction houses and collector cellars, with declared vintages from Taylor's, Fonseca, and Dow's commanding the highest prices. Tawny, by contrast, offers immediate accessibility: it requires no decanting, is stable after bottling, and can be served lightly chilled, making it ideal for restaurant by-the-glass programmes and casual entertaining. This practical advantage, combined with its versatility with food from foie gras to tarte tatin, arguably makes aged Tawny the more commercially agile category in the modern on-trade, even as Vintage Port retains its prestige.

Tasting

5. You are presented with a 10-year-old Madeira Verdelho produced using the canteiro method. Using the WSET Diploma Systematic Approach to Tasting (SAT), write a complete tasting note covering appearance, nose, palate, and an assessment of quality and readiness for drinking. Justify your conclusions with specific sensory evidence.

(25 marks)

Marking Points:

- Appearance: medium amber-gold colour consistent with a medium-dry style and a decade of gradual oxidative ageing in the canteiro system
- Nose: lifted volatile acidity and pronounced complexity — dried apricot, orange marmalade, caramel, roasted nuts, with a distinctive smoky-mineral character
- Palate: medium-dry with searing high acidity, medium body, concentrated flavours of caramelised citrus, dried fruit, and nuts, with exceptional length
- Quality assessment: outstanding quality underpinned by the electric acidity, concentration, and complexity that the canteiro method and Verdelho grape deliver
- Readiness: drinking now but essentially indestructible; will continue to develop for decades

Model Answer:

Appearance: The wine displays a medium amber-gold colour with olive-green tinges at the rim, clear and bright. The intensity of colour reflects ten years of slow, gradual oxidative ageing in the canteiro system, where casks are stored in naturally warm lofts rather than being heated artificially, producing a more refined evolution.

Nose: The nose is pronounced and complex. Characteristic lifted volatile acidity — a hallmark of quality Madeira — provides aromatic lift. Dried apricot, orange marmalade, and candied lemon peel dominate, supported by caramel, roasted hazelnut, and a subtle smoky, almost iodine-like mineral character. There is an evolving quality: behind the fruit sits a savoury depth suggesting further complexity with age.

Palate: The wine is medium-dry, reflecting the Verdelho grape's traditional position in Madeira's sweetness hierarchy. The defining feature is the searing, electric acidity — exceptionally high and vibrant — which cuts through the residual sugar and gives the wine extraordinary freshness and tension. Body is medium. Flavours of caramelised orange, dried apricot, toasted almond, and a touch of coffee are concentrated and persistent. The spirit is fully integrated. The finish is exceptionally long, with acidity and caramelised fruit lingering well beyond thirty seconds.

Conclusion: This is an outstanding Madeira. The canteiro method has produced a wine of remarkable refinement and complexity, superior to estufagem alternatives. The Verdelho grape's naturally high acidity is the structural backbone, creating a wine of extraordinary balance and freshness despite a decade of oxidative ageing. It is superb to drink now, but Madeira of this quality is virtually indestructible once bottled and will continue to develop positively for decades.

6. You are presented with a Fino Sherry from Sanlúcar de Barrameda (Manzanilla) that has aged for 4 years under flor. Using the WSET Diploma Systematic Approach to Tasting (SAT), write a complete tasting note covering appearance, nose, palate, and an assessment of quality and readiness for drinking. Justify your conclusions with specific sensory evidence.

(25 marks)

Marking Points:

- Appearance: pale lemon to straw colour reflecting biological ageing under flor without oxidative colour development
- Nose: pungent yeasty, saline, and chamomile characters typical of flor ageing in a coastal bodega, with green apple and almond notes
- Palate: bone dry, high acidity, light body, pronounced saline and tangy yeast-driven flavours with a bitter-almond finish
- Quality assessment: very good to outstanding, judged on typicality, freshness, and complexity of flor character
- Readiness: drink immediately; Manzanilla is at its best freshly bottled and does not benefit from further ageing in bottle

Model Answer:

Appearance: The wine is a very pale lemon, almost water-white with green-gold tinges, bright and star-bright clear. This pallor is characteristic of biological ageing exclusively under a thick veil of flor yeast, which protects the wine from oxidation.

Nose: The nose is pronounced and highly distinctive. There are pungent notes of bread dough and yeast from the flor ageing, alongside a pronounced saline, sea-breeze quality particular to the coastal bodegas of Sanlúcar de Barrameda. Chamomile and dried herbs are evident, along with green apple and a subtle raw-almond character. The overall impression is of freshness, tang, and coastal character.

Palate: The wine is bone dry with high, bracing acidity and a distinctly saline, almost briny quality. The body is light, as expected from biological ageing which consumes glycerol. Flavours of green apple, yeast, and chamomile carry through from the nose, joined by a distinctive bitter-almond note on the mid-palate. The tangy, savoury quality is persistent and appetising. The finish is medium-plus in length, dry, and marked by salinity and a clean, bitter edge.

Conclusion: This is an outstanding Manzanilla that displays exceptional typicality. The pronounced flor character, coastal salinity, and razor-sharp acidity are all indicative of careful biological ageing in Sanlúcar de Barrameda. The wine is at peak readiness now and should be consumed promptly — Manzanilla does not improve with bottle age and will lose its defining freshness and delicacy if stored. Serve chilled as an aperitif or with seafood.

