Answer Key
Note: Page numbers refer to the workbook

Chapter One: Spirit Production

Page 7 (Exercise 1: The Production of Distilled Spirits: Fill in the Blank/Short Answer)
1. Ethanol/ethyl alcohol
2. Typically, a person may consume a potable form of alcohol in moderation without suffering any undesirable effects
3. Grapes, other fruit, honey, sugarcane, molasses
4. Rice, potatoes, grains, (agave)
5. 212°F (100°C)
6. 173°F (78°C)
7. They dissolve in one another
8. 96.5%

Page 8 (Exercise 2: The Production of Distilled Spirits: Matching)
1. Wash
2. Dehydration
3. Congeners
4. Vaporization
5. Tails
6. Heads
7. Proof
8. Heart
9. Lees
10. Tails
11. Heads
12. Cut Points

Page 9 (Exercise 3: The Pot Still Diagram)
1. Water source
2. Worm condenser
3. Cooling water
4. Swan’s neck
5. Wash inlet
6. Still head
7. Copper pot
8. Collecting safe

Page 10 (Exercise 4: Types of Stills: Matching)
1. Pot still
2. Brouillis
3. Low wines
4. Reflux
5. Patent still
6. Analyzer
7. Robert Stein
8. Hydroselector
9. Rectifier
10. Hybrid still
11. Downcomer
12. Aeneas Coffey
13. Multiple Column Still
14. Lyne Arm

Page 11 (Exercise 5: The Column Still Diagram)
1. High alcohol product take-off
2. Condenser
3. 50% abv product take-off
4. 10% abv product take-off
5. Boiler
6. Liquid return
7. Wash feed
8. Analyzer-rectifying section
9. Analyzer-stripping section
10. Reflux tube
Page 12 (Exercise 6: The Hybrid Still Diagram)
1. Condenser
2. Alcohol/water vapor
3. Column still
4. Pot still
5. Heat source
6. Liquid return
7. Reflux
8. Product take-off

Page 13 (Exercise 7: The Maturation of Distilled Spirits: Fill in the Blank/Short Answer)
1. New-make, new-make spirit
2. Clear, or water-white
3. Blending, coloring, filtration, adding water to reduce abv, aging
4. a. Lignin
   b. Hemicellulose
   c. Cellulose
   d. Hemicellulose
   e. Cellulose
   f. Lignin
5. Vanilla
6. a. Filtration
   b. Coloration
   c. Oxidation, Evaporation, & Concentration
   d. Extraction
   e. Evaporation

Page 14 (Exercise 8: Spirit Categories: Matching)
1. Vermouth
2. Gin
3. Mirabelle
4. Whiskey
5. Tequila
6. Rum
7. Amari
8. Vodka
9. Akvavit
10. Brandy
11. Liqueurs
12. Mezcal
13. Cachaça
14. Pomace Brandy

Page 15 (Checkpoint Quiz: Chapter 1)
1. C
2. B
3. A
4. C
5. C
6. D
7. A
8. D
9. C
10. B
11. B
12. B
13. A
14. D
15. B

Chapter Two: The Sensory Evaluation of Spirits

Page 17 (Exercise 1: The Sensory Evaluation of Spirits: True or False)
1. False
2. True
3. True
4. False
5. False
6. True
7. True
8. True
9. False
Page 18 (Exercise 2: The Sensory Evaluation of Spirits: Matching)
1. Length
2. Bitterness
3. Sweetness
4. Louching
5. Rancio
6. Meniscus
7. Complexity
8. Acidity
9. Alcohol
10. Finish
11. Viscosity
12. Turbidity

Page 19 (Exercise 3: The Sensory Evaluation of Spirits: Fill in the Blank)
1. Flights, six, eight
2. Tears or legs (sometimes the term “rivulets” is also used); alcohol
3. Intense
4. Medium intensity, light
5. Roll
6. Alcoholic
7. Cleanse
8. Texture, weight, viscosity
9. Sweetness
10. Complex
11. Hot, harsh

Page 20 (Checkpoint Quiz: Chapter 2)
1. D
2. B
3. A
4. C
5. B
6. D
7. C
8. A

Chapter Three: Vodka and Other Neutral Spirits

Page 21 (Exercise 1: Definition and History of Vodka: Matching)
1. Carbon
2. 80°
3. 60°
4. 75°
5. Grain
6. Neutral spirits
7. Grapes
8. Smirnoff
9. Potato
10. Stolichnaya
11. Original vodka

Page 22 (Exercise 2: The Production of Vodka: True or False)
1. True
2. False
3. False
4. False
5. True
6. False
7. True
8. False
9. True
10. True
11. False
12. True
13. True
14. True
15. True
Page 23 (Exercise 3: Vodka by Region: Matching)
1. Poland
2. France
3. United States
4. The Netherlands
5. Sweden
6. United States
7. Russia
8. Poland
9. Canada
10. Austria
11. France
12. Poland
13. United States
14. Poland
15. Poland
16. United States
17. Poland
18. Russia
19. Iceland
20. Finland

Page 24 (Exercise 4: Flavored Vodka/Fill in the Blank/Short Answer)
1. Starka
2. Krupnik; warm (hot, heated); Krupnikas
3. Zubrówka; Belarus
4. Pertsovka; honey
5. Whiskey
6. Okhotnichya; ginger
7. Tormentil
8. 30%
9. Light (low-calorie)
10. 37.5% (the same as original vodka)

Page 25 (Exercise 5: Vodka and Neutral Spirits: Fill in the Blank/Short Answer)

<table>
<thead>
<tr>
<th>Barley</th>
<th>Traditional base ingredient used for vodka production in Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (ethanol)</td>
<td>The flavor of American vodka is often compared to the flavor of this substance</td>
</tr>
<tr>
<td>Rye, Potato</td>
<td>Traditional base ingredients used for vodka production in Poland</td>
</tr>
<tr>
<td>Everclear</td>
<td>American neutral spirit – sometimes bottled as high as 190 proof – produced by the Luxco company</td>
</tr>
<tr>
<td>Wheat, barley</td>
<td>Base materials that tend to produce vodka that is highly acidic and lighter in body</td>
</tr>
<tr>
<td>Wheat</td>
<td>Traditional base ingredient used for vodka production in Russia</td>
</tr>
<tr>
<td>Corn</td>
<td>Base material that tends to produce vodka that is delicate in flavor and texture</td>
</tr>
<tr>
<td>Waxy</td>
<td>Flavor/texture characteristic found in some brands of vodka due to the presence of ethyl myristate and ethyl palmitate</td>
</tr>
<tr>
<td>Spirytus Rektyfikowany</td>
<td>Brand of rectified spirit from Poland, often used to make homemade liqueurs (or for consumption)</td>
</tr>
<tr>
<td>Rye, rye blends</td>
<td>Base materials that tend to produce vodka that is spicy and more robust in character</td>
</tr>
<tr>
<td>Primaspirit</td>
<td>Brand of neutral grain spirit produced in Germany, mostly for use in homemade liqueurs</td>
</tr>
</tbody>
</table>
**Potato**
Base material that tends to produce vodka that is full-bodied and creamier on the palate

**Winter Wheat**
Traditional base ingredient used for vodka production in Sweden

**Fruity, floral**
Aromas found in some brands of vodka due to the presence of ethyl laureate

---

**Page 26 (Exercise 6: Baijiu, Shōchū, and Soju: Matching)**

1. Kōji
2. Korea
3. Soba shōchū
4. Erguotou
5. Komejōchū
6. Wuliangye
7. China
8. Mugijōchū
9. Shaojiu
10. Japan
11. Jinro
12. Moutai
13. Imojōchū
14. Qu
15. Moromi
16. Kasutori shōchū

**Page 27 (Checkpoint Quiz: Chapter 3)**

1. C
2. B
3. A
4. D
5. A
6. D
7. C
8. B
9. A
10. A
11. C
12. D

**Chapter Four: Gin and Other Flavored Spirits**

**Page 29 (Exercise 1: The Definition of Gin: True or False)**

1. False
2. True
3. True
4. False
5. True
6. True
7. False
8. True
9. False
10. True

**Page 30 (Exercise 2: Botanicals: Matching)**

1. Coriander Seed
2. Cardamom
3. Orris root
4. Gentian
5. Quinine
6. Calamus
7. Coriander Seed
8. Juniper
9. Calamus
10. Hyssop
11. Angelica
12. Cassia
### Page 31 (Exercise 3: Methods of Gin Production: Comparison)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Original Distillation</th>
<th>Re-distillation</th>
<th>Cold Compounding</th>
<th>Essential Oils</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Uses fermented mash</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Uses neutral spirits and botanicals enclosed in a mesh bag</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3. When done in altered air pressure, may be referred to as “vacuum distillation”</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Produces a style of gin considered to be lower quality than distilled gin</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>5. Also known as the compounding essence procedure</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>6. Uses a specialized still with a gin head</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Involves “soaking” neutral spirits with a batch of crushed botanicals</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>8. Also known as “direct distillation”</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Produces a style of gin known as “compound gin”</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>10. Uses neutral spirits</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

### Page 32 (Exercise 4: Styles of Gin: Fill in the Blank/Short Answer)

1. Water
2. 0.1 gram
3. Light, dry, and crisp
4. 1793
5. Black Friars
6. Vilnius gin
7. Dry Martini
8. Mayflower
9. England (Witham), Oregon
10. Old Tom gin
11. Dudley Bradstreet
12. Carter head
13. 30%
14. Menorca

### Page 33 (Exercise 5: Juniper-flavored Spirit Drinks)

1. Wacholder
2. Belgium
3. Holland Gin
4. Oude
5. Genever
6. France
7. Steinhäger
8. Germany
9. Steinhäger
10. Wacholder
11. Germany
12. Jonge
13. Koptstootjes
14. Wacholder
### Page 34 (Exercise 6: Flavored Spirits: Fill in the Blank/Short Answer)

<table>
<thead>
<tr>
<th>Couvet, Switzerland</th>
<th>Location of first absinthe distillery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thujone</td>
<td>Chemical compound often blamed for certain (alleged) harmful effects of the consumption of absinthe</td>
</tr>
<tr>
<td>2007</td>
<td>Year that absinthe became legal in the United States (after a ninety-year ban)</td>
</tr>
<tr>
<td>Turkey</td>
<td>Country of origin for the unsweetened anise-flavored spirit known as Raki</td>
</tr>
<tr>
<td>Sultana grapes</td>
<td>Base material which is fermented and used in the production of high-quality Raki</td>
</tr>
<tr>
<td>Suma</td>
<td>The base spirit that will be redistilled and made into raki</td>
</tr>
<tr>
<td>Pernod</td>
<td>Product launched in 1928 as a sweeter alternative to absinthe, “minus the wormwood”</td>
</tr>
<tr>
<td>Pastis</td>
<td>Dry, anise-flavored spirit launched by Paul Ricard in the 1930s</td>
</tr>
<tr>
<td>Ouzo</td>
<td>The leading anise-flavored spirit in Greece</td>
</tr>
<tr>
<td>Pacharán</td>
<td>Sloe berry-flavored liqueur made with anise-flavored spirits, popular in Spain’s Basque Country</td>
</tr>
<tr>
<td>Caraway</td>
<td>Main flavoring in akvavit</td>
</tr>
<tr>
<td>Taffel Akvavit</td>
<td>Term used to indicate a clear, unaged (or just slightly aged) style of akvavit</td>
</tr>
<tr>
<td>Linje Akvavit</td>
<td>Style of akvavit that is aged based on a unique tradition of sailing ships</td>
</tr>
<tr>
<td>Sweden</td>
<td>Country that has PGI status for akvavit</td>
</tr>
</tbody>
</table>

### Page 35 (Checkpoint Quiz: Chapter 4)

1. C  7. A
2. B  8. B
3. B  9. A
4. A  10. C
5. D  11. A

### Chapter Five: Whiskey

### Page 37 (Exercise 1: The Definition of Whiskey: True or False)

1. True 7. False
2. True 8. True
3. False 9. False
4. False 10. True
5. True 11. False
6. True 12. True
Page 38 (Exercise 2: Whiskey Production—Fermentation and Distillation: Matching)
1. Mash tun
2. Kilning
3. Wort
4. Fermentation
5. Mashing
6. Maltose
7. Iron
8. Grain bill (or mash bill)
9. Sodium
10. Malting
11. Grist
12. Wash
13. Green malt
14. Mash cooker
15. Kilning

Page 39 (Exercise 3: Whiskey: Timeline)
1. Grain Bill
2. Malting
3. Green malt
4. Kilning
5. Milling
6. Mashing
7. Washing
8. Fermentation
9. Distillation in a wash still
10. Low wines
11. Distillation in a spirit still
12. New make spirit
13. Maturation
14. Blending
15. Bottling

Page 40 (Exercise 4: Whiskey Production—Maturation and Bottling: True or False)
1. True
2. False
3. True
4. True
5. False
6. True
7. True
8. False
9. True
10. True
11. True
12. False
13. False
14. True
15. False

Page 41 (Exercise 5: Scotch Whisky: Matching)
1. Blended malt Scotch
2. Malted barley
3. Blended Scotch
4. Single malt Scotch
5. The Highlands
6. Speyside
7. Single grain Scotch
8. Wheat
9. Blended grain Scotch
10. Blended Scotch
11. Single malt Scotch
12. Islay
13. The Lowlands
14. Speyside
15. Campbeltown
### Page 42 (Exercise 6: Whisky-Producing Regions of Scotland: Map Exercise)

1. Isle of Skye
2. Northern Highlands
3. Orkney Islands
4. Inverness
5. Speyside
6. Eastern Highlands
7. Aberdeen
8. Central Highlands
9. Perth
10. Edinburgh
11. Glasgow
12. Lowlands
13. Isle of Arran
14. Campbeltown
15. Islay
16. Isle of Jura
17. Western Highlands
18. Isle of Mull

### Page 43 (Exercise 7: Irish Whiskey: Comparison)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Irish Malt Whiskey</th>
<th>Irish Grain Whiskey</th>
<th>Irish Pot Still Whiskey</th>
<th>Blended Irish Whiskey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Must be distilled using pot stills</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X (partially)</td>
</tr>
<tr>
<td>2. Must be bottled in Ireland or shipped off the island in inert bulk containers</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3. May be produced using double or triple distillation</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>4. Must be made using 100% malted barley</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Must be produced using a maximum of 30% malted barley</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>6. Must be produced using a minimum of 30% of both malted and unmalted barley</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>7. Often contains up to 5% oats or rye</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>8. Not allowed to be exported in any type of wooden container</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>9. Produced using two or more different whiskey types</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>10. Must be stored in wooden casks not to exceed 700 liters in capacity for at least 3 years</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>11. Produced using a mixture of malted and unmalted grains</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
**Page 44 (Exercise 8: European Whiskey: True or False)**

1. True
2. True
3. False
4. True
5. True
6. False
7. True
8. True
9. True
10. True
11. False
12. False
13. True
14. True
15. False

**Page 45 (Exercise 9: Bourbon Whiskey: Fill in the Blank/Short Answer)**

1. Corn, 70%
2. 160
3. Backset, sour mashing
4. Beer stills, doubler
5. Tails
6. 125 proof, charred
7. 1964, distinctive
8. Honey barrels
9. Blended (or a blend), 51%
10. Kentucky
11. Straight bourbon

**Page 46 (Exercise 10: American Whiskey: Fill in the Blank/Short Answer)**

<table>
<thead>
<tr>
<th>The Lincoln Country Process</th>
<th>Tennessee whiskey must undergo this charcoal-filtering process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benjamin Prichard's</td>
<td>Tennessee distillery that was granted exception to the charcoal-filtering rule</td>
</tr>
<tr>
<td>Old Overholt</td>
<td>Brand of American rye whiskey founded in 1810</td>
</tr>
<tr>
<td>No aging is required, but if it is aged, it must be in used or uncharred barrels</td>
<td>Aging requirement for American corn whiskey</td>
</tr>
<tr>
<td>Bourbon</td>
<td>The six possible types of American straight whiskeys</td>
</tr>
<tr>
<td>Rye</td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td></td>
</tr>
<tr>
<td>Malted barley</td>
<td></td>
</tr>
<tr>
<td>Malted rye</td>
<td></td>
</tr>
<tr>
<td>Corn</td>
<td></td>
</tr>
<tr>
<td>Two years in new charred oak barrels</td>
<td>Minimum aging requirement for American straight whiskeys that have an age statement on the label</td>
</tr>
<tr>
<td>Four years in new charred oak barrels</td>
<td>Minimum aging requirement for American straight whiskeys that do not have an age statement on the label</td>
</tr>
<tr>
<td>100 proof</td>
<td>Required bottling proof for American bottled-in-bond whiskey</td>
</tr>
<tr>
<td>Spirit whiskey</td>
<td>A mixture of neutral spirits mixed with no less than 5% whiskey</td>
</tr>
<tr>
<td>White dog, new make, or unaged whiskey</td>
<td>Another term for “Jacob’s Ghost” or other types of “white whiskey”</td>
</tr>
<tr>
<td>Light whiskey</td>
<td>Obscure whiskey product that must be distilled to higher than 160 proof but lower than 190 proof</td>
</tr>
</tbody>
</table>
Page 47 (Exercise 11: Canadian Whisky: True or False)
1. False 9. True
2. True 10. True
3. True 11. False
4. False 12. True
5. True 13. False
6. False 14. True
7. False 15. True
8. False

Page 48 (Exercise 12: International Whiskies: Matching)
1. Yoichi Distillery 8. Brilliance
3. Pradlo Distillery 10. Feni
4. Tasmania Distillery 11. Hazelburn Distillery
5. Southern Distilleries 12. Yamazaki
7. Officer’s Choice 14. Whisky DYC

Page 49 (Exercise 13: Whiskey: Brands)

<table>
<thead>
<tr>
<th>Scotland</th>
<th>Ireland</th>
<th>United States</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ardbeg</td>
<td>Cooley</td>
<td>Benjamin Prichard’s</td>
<td>Crown Royal</td>
</tr>
<tr>
<td>Ballantine’s</td>
<td>Connemara</td>
<td>Buffalo Trace</td>
<td>Glenora</td>
</tr>
<tr>
<td>Chivas Regal</td>
<td>Echlinville</td>
<td>Four Roses</td>
<td></td>
</tr>
<tr>
<td>Cutty Sark</td>
<td>Green Spot</td>
<td>George Dickel</td>
<td></td>
</tr>
<tr>
<td>Dalmore</td>
<td>Jameson</td>
<td>Jack Daniel’s</td>
<td></td>
</tr>
<tr>
<td>Dalwhinnie</td>
<td>Kilbeggan</td>
<td>Jim Beam</td>
<td></td>
</tr>
<tr>
<td>Dewar’s</td>
<td>Midleton</td>
<td>Maker’s Mark</td>
<td></td>
</tr>
<tr>
<td>Famous Grouse</td>
<td>Old Bushmills</td>
<td>Old Forester</td>
<td></td>
</tr>
<tr>
<td>Glenlivet</td>
<td>Redbreast</td>
<td>Old Overholt</td>
<td></td>
</tr>
<tr>
<td>J&amp;B</td>
<td>Teeling</td>
<td>Wild Turkey</td>
<td></td>
</tr>
<tr>
<td>Johnnie Walker</td>
<td>Tullamore D.E.W.</td>
<td></td>
<td>Woodford Reserve</td>
</tr>
<tr>
<td>Macallan</td>
<td>West Cork</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talisker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William Peel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 50–51 (Checkpoint Quiz – Chapter 5)
1. C 11. C
2. B 12. B
3. A 13. A
4. D 14. A
5. C 15. B
7. A 17. C
8. D 18. B
9. C 19. A
10. D 20. D
Chapter Six: Brandy and Other Fruit-Based Spirits

Page 53 (Exercise 1: The Definition of Brandy: True or False)
1. True
2. True
3. False
4. True
5. True
6. False
7. True
8. True
9. False
10. True
11. False
12. False

Page 54 (Exercise 2 Cognac: Matching)
1. Á repasse
2. Bon Bois
3. Brouillis
4. Martell
5. Petite Champagne
6. Sélect
7. Ugni Blanc
8. Rémy Martin
9. Saint-Émilion
10. Grande Champagne
11. Première chauffe
12. Folignan
13. Bonne chauffe
14. Hennessey
15. Bois Ordinaires

Page 55 (Exercise 3: The Cognac Region: Map Exercise)
1. Bois Ordinaires
2. Bons Bois
3. Borderies
4. Fins Bois
5. Grande Champagne
6. Petite Champagne
7. Bois Ordinaires
8. Fins Bois
9. La Rochelle
10. Rochefort
11. City of Cognac
12. City of Bordeaux

Page 56 (Exercise 4: Cognac Labeling Terms: Fill in the Blank/Short Answer)

<table>
<thead>
<tr>
<th>Eau-de-vie de Cognac or Eau-de-vie des Charentes</th>
<th>The full, official name of cognac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Champagne</td>
<td>Labeling term used to indicate a cognac produced with a combination of grapes from the Grande Champagne and Petite Champagne areas (with at least 50% from Grande Champagne)</td>
</tr>
<tr>
<td>*** (three stars)</td>
<td>Labeling terms used for cognac with a minimum of two years of wood aging</td>
</tr>
<tr>
<td>VS (Very Special)</td>
<td>Labeling term used for cognac with a minimum of three years of wood aging</td>
</tr>
<tr>
<td>Supérieur</td>
<td>Labeling terms used for cognac with a minimum of four years of wood aging</td>
</tr>
<tr>
<td>VSOP (Very Superior Old Pale)</td>
<td>Labeling terms used for cognac with a minimum of five years of wood aging</td>
</tr>
<tr>
<td>Réserve</td>
<td>Labeling terms used for cognac with a minimum of six years of wood aging</td>
</tr>
<tr>
<td>Napoléon Extra</td>
<td>Labeling term used for a cognac with a minimum of ten years of wood aging*</td>
</tr>
<tr>
<td>Vielle Réserve</td>
<td></td>
</tr>
<tr>
<td>Hors d’Âge</td>
<td></td>
</tr>
<tr>
<td>XO (Extra-Old)*</td>
<td></td>
</tr>
</tbody>
</table>
**Hors d'Âge**
Labeling term that translates as “beyond age”

**Bureau National Interprofessionnel du Cognac (BNIC)**
Agency that oversees the inventory and age control of cognac

**Acquit Régional Jaune d’Or**
French term for the “golden certificate” which must accompany every consignment of cognac

*Note: The XO designation was changed to reflect the ten-year minimum (from the previous standard of six years minimum) as of April, 2018.*

---

**Page 57 (Exercise 5 Armagnac: Matching)**

1. Vintage
2. Clairette de Gascogne
3. Monlezun
4. Boulbènes
5. Blanche
6. Mauzac
7. Floc de Gascogne
8. Monlezun
9. Ugni Blanc
10. Colombard
11. Bas-Armagnac
12. Baco Blanc
13. Haut-Armagnac
14. Folle Blanche

**Page 58 (Exercise 6: The Armagnac Region: Map Exercise)**

1. Bas-Armagnac
2. Ténarèze
3. Haut-Armagnac
4. Cazaubon
5. Eauze
6. Condom
7. Toulouse
8. Auch
9. Mirande

**Page 59 (Exercise 7: Brandy de Jerez: Fill in the Blank/Short Answer)**

**La Mancha**
Area where most of the grapes for Brandy de Jerez are grown

**Airén**
Variety that provides 95% of the grapes for Brandy de Jerez

**Palomino**
Variety that provides 5% of the grapes for Brandy de Jerez

**Jerez de la Frontera Sanlúcar de Barrameda El Puerto de Santa María**
The three towns that make up the “Sherry Triangle” within the Brandy de Jerez PGI

**Holandas**
Base spirit that is up to 70% abv

**Aguardiente**
Base spirit that is up to 80% abv

**Destilado**
Base spirit that has up to 94.8% abv

**Alquitaras**
Specialized stills used to produce high-quality Brandy de Jerez

**Solera System**
Series of barrels used for aging Brandy de Jerez

**Solera**
Labeling term used for Brandy de Jerez that has a minimum of 6 months of solera aging in wood

**Solera Reserva**
Labeling term used for Brandy de Jerez that has a minimum of 1 year of solera aging in wood

**Solera Gran Reserva**
Labeling term used for 100% holandas Brandy de Jerez that has a minimum of 3 years of solera aging in wood
Page 60 (Exercise 8: Pisco: True or False)
1. False
2. True
3. True
4. False
5. True
6. True
7. True
8. True
9. False
10. False
11. False
12. True
13. False
14. True
15. True
16. False

Page 61 (Exercise 9: Grape Brandy around the World: Fill in the Blank/Short Answer)
1. Champagne
2. 90%
3. Thompson Seedless, Ugni Blanc
4. San Joaquin
5. Robertson, Worcester
6. 100%, three
7. 30%
8. Eight
9. Alter, Uralt
10. Greece, rose petals and herbs
11. Mexico
12. Oeste, Portugal
13. Ten
14. Bolivia

Page 62 (Exercise 10 Pomace Brandy and Fruit Brandy: Matching)
1. Stravecchia
2. Bourgogne
3. Nonino
4. Mirabelle
5. Orujo
6. Caffè Corretto
7. Grappa
8. Picolit
9. Quetsch
10. Monovitigno
11. Invecchiata
12. Resentin
13. Eaux-de-vie de marc
14. Slivovitz
15. Geist

Page 63 (Exercise 11 Calvados and Apple Brandy: Matching)
1. Calvados AOC
2. Pommeau
3. Freeze Distillation
4. Calvados Domfrontais AOC
5. Apple brandy
6. Calvados Domfrontais AOC
7. Foudres
8. Mistelle
9. Freeze distillation
10. Jack Rose
11. Calvados Pays d'Auge AOC
12. Calvados Fermier
13. Blended applejack
14. Calvados Domfrontais AOC
Page 64–65 (Checkpoint Quiz – Chapter 6)

1. C 11. C
2. B 12. A
3. D 13. D
4. C 14. A
5. A 15. D
6. C 16. B
7. D 17. A
8. A 18. B
10. C 20. A

Chapter Seven: Rum and Other Sugarcane-Based Spirits

Page 66 (Exercise 1: The Definition of Rum: True or False)

2. True 6. True 10. False
3. True 7. False 11. False
4. False 8. True 12. False

Page 67 (Exercise 2: The Production of Rum: Fill in the Blank/Short Answer)

1. Gramineae
2. Ten, 13
3. 16
4. Sugarcane juice
5. Evaporation, virgin sugarcane honey
6. Grade A, Blackstrap molasses
7. Two or three
8. Natural
9. Esters, aromatic
10. Continuous (column), pot
11. Ten
12. Retorts

Page 69 (Page Exercise 3: Rum and other Sugar-based Spirits: Matching)

1. Mount Gay
2. Ronmiel de Canarias
3. Carúpano
4. Batavia Arrack
5. Demerara Distillers
6. Mount Gay
7. Seco Herrerano
8. Barbancourt
9. Privateer
10. Bacardi
11. Thomas Tew
12. El Dorado
13. Tuzemák
14. Cachaça
15. Penny Blue
16. Flor de Caña
Page 70 (Exercise 4: Rum from Jamaica and Martinique: Fill in the Blank/Short Answer)
1. Dunder (stillage, backset)
2. Skimmings
3. Pot stills, esters
4. Common cleans
5. Plummers, tropical
6. Wedderburns
7. Continental flavoreds, medicinal
8. 2016
9. 65% to 75%
10. Eight
11. 12
12. Rhum Paille, 18 months
13. Three years
14. Four years, six years

Page 71 (Checkpoint Quiz – Chapter 7)
1. C
2. D
3. A
4. B
5. D
6. A
7. B
8. D
9. C
10. A
11. B
12. B

Chapter Eight: Tequila and Other Agave-Based Beverages

Page 73 (Exercise 1: The Agave Plant: True or False)
1. True
2. True
3. False
4. False
5. True
6. True
7. False
8. False
9. True
10. True

Page 74 (Exercise 2 Tequila Vocabulary: Matching)
1. Bagazo
2. Mosto
3. El corazón
4. Hydrolysis
5. Inulin
6. Tequila primero
7. Jimador
8. Autoclave
9. Tahona
10. Horno
11. Tequila refino
12. Coa
13. Aguamiel
14. Rhizome

Page 75 (Exercise 3: The Tequila Production Regions and Mexico: Map Exercise)
1. Monterey
2. Tamaulipas
3. Guanajuato
4. Mexico City
5. Oaxaca
6. Nayarit
7. Guadalajara
8. Jalisco
9. Michoacán
### Page 76 (Exercise 4: Tequila-Producing Regions: Comparison)

<table>
<thead>
<tr>
<th>Statement</th>
<th>The Amatitán/Lowlands Region</th>
<th>The Los Altos/Highlands Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, the warmer of the two regions</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Average altitude is 2,000 meters (6,500 feet) above sea level</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Produces tequila that are more vegetal in flavor</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Produces tequila with spicy, black pepper flavors</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Located in the east-central section of Jalisco</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Produces tequilas that are highly floral in nature</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Produces agave piñas that average 35 to 75 kilos (75 to 165 pounds) in weight</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Produces tequilas that are crisper and more earthy</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Produces agave piñas that average 50 to 90 kilos (110 to 200 pounds) in weight</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Average altitude is 1,300 meters (4,200 feet) above sea level</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Produces tequilas that are softer and fruitier</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Located in the north-central section of Jalisco</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

### Page 77 (Exercise 5: Bottling and Labeling Tequila: Fill in the Blank/Short Answer)

1. Plata, white, and silver
2. 51; cane sugar, molasses, or corn syrup
3. Blanco/silver
4. Oro (gold)
5. Mixto (non-100% agave); joven abocado
6. Reposado
7. Añejo
8. Extra-añejo
9. 600 liters (160 gallons)
10. 2004
11. 100% agave; mixto (non-100% agave)
12. Jose Cuervo

### Page 78 (Exercise 6: Other Agave-Based Beverages: Matching)

Page 79 (Checkpoint Quiz – Chapter 8)
1. B
2. C
3. A
4. D
5. D
6. C
7. B
8. B
9. C
10. A
11. D
12. B

Chapter Nine: Liqueurs

Page 81 (Exercise 1: The Definition of Liqueurs: True or False)
1. False
2. True
3. True
4. False
5. True
6. True
7. False
8. False
9. True
10. False
11. True
12. False

Page 82 (Exercise 2: The Production of Liqueurs: Fill in the Blank/Short Answer)
1. Base spirit, flavor source
2. Cold
3. Infusion
4. Maceration, alcoholic
5. Percolation
6. Compounding
7. Hot
8. Vacuum distillation
9. Sweetened
10. Approved food dyes
11. Unaged
12. 30, 80

Page 83 (Exercise 3: Fruit Liqueurs: Matching)
1. Grand Marnier Cordon Rouge
2. Luxardo Maraschino
3. Malibu
4. Chambord
5. Limoncello
6. Luxardo Maraschino
7. Midori Melon
8. Heering Cherry Liqueur
9. Cointreau
10. Chambord
11. Grand Marnier Cordon Jaune
12. Mandarine Napoléon
13. Triple Sec

Page 84 (Exercise 4: Liqueurs: Matching)
1. Crème Yvette
2. Liquore Strega
3. St. Germain
4. Disaronno Originale
5. Tuaca
6. Frangelico
7. Goldschläger
8. Nocino
9. Amarula
10. Domaine de Canton
11. Southern Comfort
12. Galliano
13. Drambuie
14. Liquore Strega
Page 85 (Checkpoint Quiz – Chapter 9)

1. D  
2. A  
3. D  
4. B  
5. D  
6. B  
7. A  
8. B  
9. B  
10. C  
11. A  
12. D  

Chapter Ten: Vermouth, Amari, and Bitters

Page 87 (Exercise 1: The Definition of Liqueurs: True or False)

1. True  
2. False  
3. True  
4. True  
5. False  
6. True  
7. False  
8. True  
9. False  
10. False  
11. True  
12. True  

Page 88 (Exercise 2: Vermouth: Matching)

1. Primitivo Quiles
2. Carpano Antica Formula
3. Vermouth di Torino
4. Yzaguirre
5. Stock Spirits Group
6. Dolin
7. Primitivo Quiles
8. Carpano Punt e Mes
9. Atsby Vermouth
10. Casa Mariol
11. Boissiere
12. Ransom Vermouth
13. Noilly Prat
14. Lustau
15. Vermouth de Chambéry

Page 89 (Exercise 3: Vini Amari, Quinquina, and Americano: Fill in the Blank/Short Answer)

1. Piedmont, Chinato d'Erbetti
2. Cinchona
3. Bonal Gentiane Quina
4. Byrrh, Carignan, Grenache
5. St. Raphael
6. Lillet, Kina Lillet
7. Réserve Jean de Lillet Blanc
8. Dubonnet
9. Wormwood, gentian
10. Campari
11. Cocchi Americano
12. Contratto, Contratto Americano Rosso
Page 90 (Exercise 4: Spirit Amari: Matching)
1. Picon
2. Jägermeister
3. Zwack Unicum
4. Campari
5. Bénédictine
6. Negroni
7. Chartreuse
8. Suze
9. Fernet Branca
10. Becherovka
11. Chartreuse
12. Averna
13. Aperol
14. Gammel Dansk
15. Cynar

Page 91 (Checkpoint Quiz – Chapter 10)
1. D
2. C
3. A
4. B
5. A
6. C
7. B
8. C
9. C
10. A
11. A
12. D

Chapter Eleven: Mixology

Page 93 (Exercise 1: Mixology: True or False)
1. True
2. False
3. False
4. True
5. False
6. False
7. True
8. True
9. True
10. True
11. False

Page 94 (Exercise 2: Modern Mixology and Craft Cocktails)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibogus</td>
<td>A pre-prohibition cocktail made with rum, spruce beer, and molasses</td>
</tr>
<tr>
<td>Muddler</td>
<td>A special bar tool used to crush ingredients such as mint leaves or lime wedges in order to squeeze out juices, oils, and flavors</td>
</tr>
<tr>
<td>Shrub</td>
<td>A beverage made in colonial America using the liquid from a batch of fruit macerated with sugar and vinegar</td>
</tr>
<tr>
<td>Free-pour</td>
<td>To make and mix drinks without using any kind of measuring device or measured pour spout</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Measurement of the weight of a liquid in reference to water</td>
</tr>
<tr>
<td>Twist</td>
<td>The peel of a citrus fruit specially cut to be used as a drink garnish</td>
</tr>
<tr>
<td>Bounce</td>
<td>A drink popular in colonial America often made (as the legend goes) by Martha Washington using cherries, spices, and a bottle of rye whiskey</td>
</tr>
<tr>
<td>Neat</td>
<td>Term often used to describe a shot of liquor poured directly into the glass</td>
</tr>
<tr>
<td>Crusta</td>
<td>A classic cocktail originally prepared with cognac, orange liqueur, bitters, and lemon juice; garnished with a long loop of lemon peel and a sugared rim</td>
</tr>
<tr>
<td>Up</td>
<td>Term used to describe a drink that is shaken or stirred with ice to chill, then strained into the glass and served without ice</td>
</tr>
</tbody>
</table>
**Cobbler**

Vintage cocktails made with a base spirit or wine, sugar and fruit shaken with ice and poured, unstrained into a glass; original version made with Sherry

**Float**

Term used for the last (lightest) ingredient to be poured in a layered drink

**Silver Fizz**

A classic cocktail made with gin (or another spirit), lemon juice, and sugar; shaken with an egg white and served tall over ice with carbonated water

**Back (or chaser)**

Modern term used for a nonalcoholic drink served alongside a shot or a strong drink

---

**Page 95 (Exercise 3: Mixing Methods: Matching)**

1. Stir  
2. Roll  
3. Dry Shake  
4. Shake  
5. Build  
6. Blend  
7. Shake  
8. Build  
9. Build  
10. Dry Shake  
11. Roll  
12. Blend  
13. Build  
14. Dry Shake

**Page 96 (Exercise 4: Drink Families: Matching)**

1. Sours  
2. Two-liquor drinks on ice  
3. The Martini family  
4. Shooters  
5. Wines and punches  
6. Shooters  
7. Wines and punches  
8. Cream-based drinks  
9. Sours  
10. Two-liquor drinks on ice  
11. Pousse-café  
12. The Martini family  
13. Highballs  
14. Tropical drinks  
15. Sours

**Page 97 (Chapter 11 Checkpoint Quiz)**

1. C  
2. D  
3. B  
4. B  
5. A  
6. C  
7. D  
8. B  
9. A  
10. A

**Chapter Twelve: The Impact of Alcohol on Health**

**Page 99 (Exercise 1: The Impact of Alcohol on Health: Fill in the Blank/Short Answer)**

1. Acetaldehyde, intoxication  
2. Binge drinking  
3. Up to one, up to two  
4. 5 ounces (148 ml)  
5. 12 ounces (355 ml)  
6. 1.5 ounces (44 ml)  
7. Clot, plaque  
8. Increases  
9. Fatty liver  
10. Cirrhosis  
11. Resveratrol
Page 100 (Chapter 12 Checkpoint Quiz)

1. C
2. B
3. A
4. C
5. A
6. B
7. D
8. C
9. A
10. B