

Test Taker ID Code: _____

Cicerone Certification Program – Certified Cicerone Exam – April 2008

Fill-in the Blank and Short Answer Questions – 143 questions

I. Keeping and Serving Beer

1. Name the tax brewers pay to the Federal government on each gallon of beer they produce: _____
2. Importers of beer sell to what member of the three tier system? _____
3. What aspect of beer labeling is most useful in assessing the freshness of beer?

4. Name two physical or behavioral indications that an individual should not be served additional alcohol: _____
5. Describe the characteristics of a beer that might make it interesting to consume a year or more after its packaging date: _____
6. Name two things that retailers can do to ensure the freshness of the beer they sell:

7. Identify the following components of a draft system using the proper name for each item that is described:
 - a. Device attached to a keg to allow input of gas and output of beer: _____
 - b. Device attached to the server's side of a draft tower for pouring draft beer: _____
 - c. Device used in some draft systems to halt the flow of beer when the keg it is attached to becomes empty: _____
 - d. The box you might see outside the beer cooler that is supplied with both carbon dioxide and nitrogen gas and has an output labeled "25% CO₂" ? _____
 - e. The device that shows the gas pressure being applied to one keg of beer? _____
 - f. Hose that delivers gas to the keg: _____
 - g. Hose that carries beer from the keg to a nearby wall-mounted bracket. _____

8. Proper draft beer system operation depends upon balancing what two elements:

_____ and _____

9. If the operating temperature of a balanced draft system (cooler and lines) is increased by several degrees, what adjustment must be made to the gas pressure? (Assume the use of 100% CO₂) _____

10. When troubleshooting a *direct draw* system, if you open the tap and *nothing* comes out, name two things you should you check:

11a. When troubleshooting a long-draw system where taps are pouring foamy beer, what is the first thing you should check and where or how would you check it?

What: _____

Where or how: _____

11b. When you have checked the items you list above and determined that they are correct but the beer on *one tap* still foams, list two other things you would check:

12. How often must beer lines be cleaned in order to maintain optimal condition of a recently installed draft beer system? _____

13. What solution at what approximate strength is required for proper routine line cleaning?

14. When cleaning a long-draw system using an electronic coil or pump what velocity of cleaning solution should be achieved and how long should it be maintained?

Velocity: _____

Time: _____

15. What component of the draft system should be disassembled and manually cleaned each time the system is cleaned? _____
16. What supplemental cleaning is recommended every 90 days? _____
17. When the cleaning cycle is complete, what liquid should you use to push the cleaning solution from the lines? _____
18. The inside of a wetted beer glass is sprinkled with salt and the salt adheres everywhere except for a half-inch wide band at the middle of the glass. Is this glass “beer clean”? _____
19. Describe features that indicate a beer has been served in a beer clean glass:

20. What is the best way to dry beer glasses and what item or equipment is required?

21. Please fill in the blanks in this sentence which provides the Campaign for Real Ale’s definition of “real ale”: Real ale is a natural product brewed using traditional ingredients and left to mature in the _____ from which it is _____ in the pub through a process called secondary _____.
22. What is the name of the wood or plastic plug inserted into a cask and through which it will be tapped? _____
23. When a retailer fills a “growler” jug with a screw-on cap, what additional measure is needed to prevent the customer from having potential legal problems during the trip home? _____

Beer Glassware

For each of the beer styles listed below, indicate the letter the pictured glass you think would be most appropriate for serving that style in. (More than one glass may be suitable for some styles.)

Please note the volume indication for each glass.



A
16 oz/473 ml



B
16.9 oz/500 ml



C
24 oz/709 ml



D
10 oz/295 ml



E
14 oz/414 ml



F
12 oz/354 ml



G
19.2 oz/568 ml



H
6.7 oz/200 ml



I
19.2 oz/568 ml

Pilsner _____

English Bitter _____

Saison _____

Kolsch _____

Barleywine _____

Stout _____

German Hefe-Weizen _____

American Amber Ale _____

Munich Helles _____

Belgian Dubbel _____

II. Beer Styles

24. What two US organizations maintain comprehensive and detailed lists of beer styles, including qualitative descriptions and quantitative data like original gravity and color?

25. Just prior to fermentation, brewers test the wort with a hydrometer or refractometer to assess what important property of a beer?

26. The property of beer that corresponds to milligrams per liter of isomerized alpha acids is known by what name? (Please spell out each word.)

27. What beer trait do measurements in degrees SRM or degrees EBC represent?

28. Carbonation levels in beer are commonly represented by what measure?

_____ of _____ .

29. The qualitative beer trait represented by the texture and weight of the beer during tasting is known by what name?

Fill in the style name described by each phrase:

30. Pale lager created and consumed in Munich: _____

31. Amber lager named for Austrian capital: _____

32. Dark German lager style whose name translates as “black: _____

33. Often pale and hoppier variation of a 16° P lager associated with Spring: _____

34. The style dubbed “liquid bread,” created to sustain fasting monks: _____

35. Specialty lager made from malt dried directly over a wood fire: _____

36. Brewed on the banks of the Rhine river, Zum Uriege is a classic example of this style:

37. The city of Cologne gives a blonde ale known by what style name: _____
38. Munich beer style known for flavor of 4-vinyl guaiacol: _____
39. German style known for distinct tartness produced by lactobacillus: _____
40. Of the two sub-categories of European pilsner, which is the often-paler and drier version?

41. Strong (>8% abv) pale Belgian-style ale of monastic origin: _____
42. Brown Trappist or Abbey-style ale around 6 to 7% abv: _____
43. Straight, unblended spontaneously fermented wheat-containing ale from Brussels region:

44. Blend of one-, two- and three-year old spontaneously fermented Brussels-region wheat-containing ale: _____
45. Spontaneously fermented Belgian-style ale aged with cherries: _____
46. With red and brown sub-styles, these lactic-acid flavored beers derive their name from the northern region of Belgium: _____
47. Belgian-style ale that may be flavored with Curacao orange peel, coriander and grains of paradise: _____
48. Malt-accented Belgian-style ale that often displays “cellar” notes and originates near the French border: _____
49. Refreshingly well-attenuated yellow-orange Belgian/French-style ale with complex fruit-spice aroma and some earthy notes: _____
50. Very pale ales with 7.5 to 10.5% abv made by secular Belgian brewers: _____
51. A ~3.5% abv draught pale ale consumed in British pubs: _____
52. English Midlands ale, often dark and nearly always less than 3.5% abv: _____
53. Dark ale consumed daily by London working classes circa 1750: _____

54. Best-known Irish beer style made with roast barley: _____
55. Lower gravity ales denoted as 60/ or 70/ are known as what sort of ale? _____
56. Sub-style of stout made in England using lactose: _____
57. Style name used for the strongest stouts: _____
58. Nickname for a strong Scotch ale: _____
59. In modern times, style name for stouts made for routine export: _____
60. Modern Irish style that is not a stout: _____
61. Well-hopped and pale British ale style created for export but became popular domestically in the mid-1800s: _____
62. A draught pale ale with a bit more flavor than ordinary but still generally less than 4.0% abv: _____
63. Ale of more than 5% abv some or all of which is held in wood vessels for six months or longer before blending and packaging: _____
64. A beer that contains no roast or black malts and is often the strongest of English ales: _____
65. Style of dark ale rare in Britain except for a Newcastle export well-known in the US: _____
66. Prior to prohibition this amber lager was made by a number of western breweries without the use of refrigeration: _____
67. A very pale 20th century American style that may be either a mixture of ale and lager or fermented using an ale yeast at cooler temperatures: _____
68. Lager made with a grist of 30 to 50 percent corn or rice: _____
69. Similar to American Pale Ale but with slightly more malt character: _____
70. Name (s) for stronger, more highly hopped versions of IPA: _____
71. Black ale style whose first name comes from the non-barley grain it contains: _____

72. Well-bittered all-malt pale lager: _____
73. Often malt-balanced ale with a color between that of amber and stout: _____

III. Beer Flavor and Evaluation:

74. List the five basic tastes detected by the tongue (one point each):
- _____
- _____
- _____
- _____
- _____
75. Other than taste, what other senses contribute during evaluation of beer?
- _____
76. What should be avoided for at least 15 minutes before beer evaluation?
- _____
77. What should the ideal environment for beer tasting be free of?
- _____
78. When tasting beer what might you want to have available for use between beer samples?
- _____
79. Once you have swirled the beer in your half-full tasting glass, what is the best way to assess the aroma of a beer?
- _____
80. What words might be used to describe the flavors imparted in beer by crystal malt?
- _____
81. What words describe the flavors imparted in beer by roasted barley?
- _____

82. What words describe the flavors and aromas imparted in beer by the use of American aroma hops such as Cascade and Simcoe.

83. What words describe the flavors and aromas imparted in beer by the use of European hops such as Hallertau, Saaz and Tettnang.

84. What common word(s) do beer evaluators use to describe the flavors that these compounds produce in beer:

Diacetyl: _____

Dimethyl Sulfide (DMS): _____

Acetaldehyde: _____

Acetic acid: _____

Trans-2-nonenal: _____

85. What ingredient is most likely to be responsible for a cheesy flavor in beer?

86. What common words describe the flavor experienced in an oxidized beer?

87. A light-struck beer exhibits an aroma best described with what common word?

88. What word do we use to describe a flavor that is like blood or coins?

89. If you get a whiff of something that reminds you of rotten eggs while tasting, what word that designates a chemical element would you most likely use to describe that?

90. At what point in the tasting process are you most likely to notice astringency?

IV. Ingredients:

91. What part of the barley kernel makes it uniquely attractive for use in brewing when compared to a grain like wheat? _____
92. The process of controlled germination and drying performed on barley to prepare it for brewing is known as what: _____
93. Barley comes in two broad types (actually separate species) based on the number of rows the kernels form on the head. What are those two broad types?

94. Name two countries where brewing barley is grown:

95. Crystal and chocolate are names for two examples of what ingredient: _____
96. Using common words, give the range of colors from lightest to darkest found in the malts used by brewers: _____ to _____
97. How is corn or rice generally treated before being mixed with the majority of the malt in the brewhouse? _____
98. Around 1820, a patented English invention transformed production of dark beers by making what previously unavailable ingredient for brewers: _____
99. What sort of plant structure (like tree, bush, grass, etc.) do hops grow on?

100. To ensure that they don't decompose during storage and shipment, what important treatment are hops subjected to immediately after picking and before being baled?

101. Name the Washington-state valley best known for hop cultivation:

102. Name one other US state that produces hops commercially:

103. Name three European hop producing countries:

104. Name a southern hemisphere country that produces hops commercially:

105. In order to impart hop aroma in a beer would you add hops at the beginning or near the end of wort boiling? _____
106. Hop oil contains compounds that contribute to what attributes of beer?

107. The alpha acids typically constitute what percentage, by weight of the hops used by brewers? (Please give a range) _____
108. Some brewers use whole hops, but these days many use a more compressed physical form known as what: _____
109. Name two American hop varieties other than Cascade:

110. Name one European hop variety: _____
111. What temperature range is beer likely to be in when it is dry hopped? _____
112. During fermentation, sugar is converted into what two major chemical products?

113. Compared to ales, lager fermentations are conducted at _____ temperatures.
114. A fermenter being held at 68 deg F is most likely using which of the two major yeast types? _____
115. Fruity aromas and flavors are most commonly produced by which of the two major yeast types? _____
116. Weizen yeast produce what sorts of flavor attributes in beer?

117. Name a beer style whose flavor might be influenced by *Brettanomyces bruxellensis*.

118. Would the flavor attributes contributed by *Pediococcus damnosis* be desirable in an outstanding example of American pale ale? _____

119. Would the flavor attributes contributed by *Acetobacter* species be desirable in an outstanding example of Flanders red ale? _____
120. Name a mineral found in water that may have a desirable effect on beer flavor:

121. Please number the following brewing processes from 1 to 5 in the order that they occur during brewing:
- ___ Wort Chilling & Aeration
 - ___ Boiling & Whirlpooling
 - ___ Mashing & Lautering
 - ___ Fermentation & Lagering
 - ___ Grain Milling
122. To initiate mashing, what gets mixed with malt? _____
123. What step in the brewing process sterilizes the wort and converts alpha acids to their isomerized form? _____
124. What most commonly gets “pitched” in a brewery? _____
125. A vessel with a cone-shaped bottom is commonly used for what stage of the brewing process? _____
126. What stage of the brewing process occurs when a bottom fermented beer is held at 3-5°C (35-41°F) for several weeks in the presence of yeast? _____
127. a. If a brewer adds gelatin or Isinglass to a beer, what are they trying to achieve?

- b. Would these ingredients be added before or after primary fermentation? _____
128. What gas do brewery bottling operations try to minimize the presence of inside the sealed bottle? _____
129. Why do some brewers include yeast in their bottled product?

130. Do most US-produced kegs contain pasteurized beer? _____
131. Name a benefit of pasteurization for a brewer?

132. Name a disadvantage of pasteurization for the brewer: _____

Beer and Food Pairing

133. When planning pairings, what should the intensity of a beer be relative to the intensity of the food item it will be paired with? _____
134. What properties or characteristics of beer contribute to its “intensity”?

135. Give a general example of “resonance” in pairing, listing a general beer flavor and corresponding food flavor. _____

136. In addition to intensity and resonance, what is a third principle of flavor pairing that often plays a role in great beer and food pairings? _____
137. Give two examples of general food flavors that the carbonation and bitterness in beer provide a counterpoint to. _____
138. List three general characteristics of beer that can contrast with food flavors.

139. Roasty flavors in beer provide a counterpoint to what sort of food flavors?

140. List three general flavors (for example “honey”) found in both beer and food:

141. What is the most difficult quality of beer to deal with as a cooking ingredient?

142. Suggest a beer or beer style that you would pair with at least *five* of the following ten foods (You can respond to as many as ten if you wish—you'll receive one point for each appropriate pairing up to a maximum of five points):

Gorgonzola Cheese: _____

Camembert Cheese: _____

Cheddar Cheese: _____

Roasted Chicken: _____

Grilled Salmon: _____

Cream-based pasta sauce (Alfredo): _____

Red Curry: _____

Chocolate Chip Cookie: _____

Flourless Chocolate Cake: _____

Carrot Cake with Cream Cheese Icing: _____

143. Answer ONE of the following three questions (5 points):

Give a dessert that might make a fine pairing with a malty barleywine that has been aged in a new oak barrel, and tell briefly why it would work.

List two cheeses that might make a fine pairing with a raspberry lambic beer and why the pairing would be likely to work.

Describe a salad and a beer that make a good pairing, and the specifics of why they work together.

Essay Questions – Please answer all three of the following essay questions.

Keeping and Serving Beer

Discuss how packaging and handling influence the development of light-struck flavor in beer. Include steps retailers might take to protect beer from developing this flavor attribute for various package types.

Beer Styles

Discuss the range of flavors you might expect to find in wood- or barrel-aged beers. Please cite commercial examples to illustrate.
