

Agenda

BJCP Overview and Online Test

1. Intro to Judging Beer
 - a. Terms
 - i. Session
 - ii. Flight
 - iii. BOS and Mini-BOS
 - b. Descriptive Vocabulary
 - c. Lexicon
2. What is the BJCP
 - a. Founded 1985
 - b. ~5000 members (the ELITE!)
 - c. Purpose
 - i. Encourage knowledge, understanding, and appreciation of the world's diverse beer, mead, and cider styles;
 - ii. Promote, recognize, and advance beer, mead, and cider tasting, evaluation, and communication skills; and
 - iii. Develop standardized tools, methods, and processes for the structured evaluation, ranking and feedback of beer, mead, and cider.
 - d. In 2014, there were 476 sanctioned competitions, with an average of 211 entries and 16 judges each.
 - e. 655 active BJCP judges in California, 25 Master+
 - f. Practically Speaking
 - i. Publish style guidelines
 - ii. Sanction and record competitions
 - iii. Test and certify Judges
3. BJCP Exams and Ranks (http://bjcp.org/docs/BJCP_Exam_Program.pdf)
 - a. Beer Judge Entrance Exam (Online)
 - i. Web based
 - ii. Pass/Fail, not percentage given
 - iii. True/False, Multiple choice, Multiple Answer
 - iv. 200 Questions in 60 minutes, 18 seconds per question
 - v. Open book, but limited time
 - vi. Learn results immediately
 - vii. Can retake every 24h. \$10
<http://bjcp.coursewebs.com/>

- viii. Grants "Provisional" rank, which lasts one year
- b. Beer Judging Exam (Tasting)
 - i. Proctored practical test
 - ii. Judge six beers on score sheets
 - iii. Closed book, must know styles from memory
 - iv. Grants Apprentice (<60), Recognized (60+) and Certified (70+) ranks.
 - v. 80+ Necessary for National and Master ranks
 - vi. Quite hard to get a seat for, but look here for dates/locations:
<http://bjcp.org/exams.php>
 1. At last years AHA conference 39 exams were given. Since it's San Diego, this could be you!
- c. Beer Judge Written Proficiency Exam (Written)
 - i. Closed book
 - ii. 20 true/false questions
 - iii. Five essay questions
 - iv. Two style related (compare/contrast), one recipe, two technical.
 - v. 90 minute time limit
 - vi. Grant's Nations (80+) and Master (90+) ranks.
- d. Experience Points
 - i. 0.5 points per session judged, but 1 point minimum per comp. 1.5/day max
 - ii. Additional 0.5 points if on BOS panel
 - iii. Typically 1 point per comp. But, if judged prelim and two session on comp day, that would be 1.5 points.
 - iv. Stewards, Staff and Organizers also earn points
- e. Member Guide: <http://www.bjcp.org/membergd.php>
 Exam Study Guide: http://bjcp.org/docs/BJCP_Study_Guide.pdf (read at least twice)
 (Great Scoresheet Examples (with Audio):
<http://www.bjcp.org/course/ClassicStyles.php>
 Exam Structure:
http://www.bjcp.org/docs/BJCP_Exam_Structure.pdf
- 4. Style Guidelines
 - a. 2008 is still in effect
 - b. 2014 will be arriving this year, perhaps
 - c. Testing through June will be in 2008, maybe longer
 - d. READ IT, KNOW IT, it is your judging Bible
- 5. The Online Exam
 - a. Sample Questions
 - b. Testing Strategies
- 6. Judge Procedures Manual (<http://www.bjcp.org/judgeprocman.php>)
 - a. Be prompt to all sessions.

- b. Do not become intoxicated during any portion of a judging session or event while serving as a judge.
 - c. Do not use tobacco, perfume, cologne or aftershave in the judging room.
 - d. Speak in a hushed conversational tone to avoid distracting others.
 - e. Novice judges may evaluate entries only as authorized by the judge director.
 - f. Do not judge in a category you have entered.
 - g. Review the style guidelines for the category you are judging before you begin.
 - h. Discuss the general characteristics of an entry, but do not attempt to influence opinions of other judges. Be patient, tactful, and respectful of others. The head judge may approve continued discussions if appropriate.
 - i. Seek guidance from the judge director if you notice another judge practicing any questionable behavior.
 - j. Be objective in judging to style guidelines, even if this is not a style that you personally enjoy.
 - k. Strive to maintain anonymity of entries.
7. Filling out a Scoresheet
- a. Structure of the scoresheet
 - b. Evaluation process
 - c. Comments Must Include
 - i. Evaluations of the sensory aspects of the entry and how those aspects relate to the Style Guidelines.
 - ii. Comments that are constructive and reflect knowledge of the brewing, fermenting, bottling, and handling processes.
 - iii. Information on how to improve the entry as warranted.
 - iv. Constructive feedback and encouragement for the entrant in all cases.
 - d. Comments Must **NOT** Include
 - i. Assumptions about the brewing process or ingredients without qualifying statements such as “If you used...” or “Did you...?”
 - ii. Derogatory, rude, and/or snide comments.
 - e. Ethics and Etiquette

Aroma 12 points

Malt; biscuit, bread, bread dough, burnt, caramel, chocolate, coffee, cookies, crackers, crust, dark fruit in strong beers, grainy, nutty, roasty, sweet, toasty, toffee

Hops; **American** (citrus, floral, fruit, grass, perfume, pine resin), **English** (earthy, floral, resin), **Noble** (floral, earthy, herbal, spice), minty, perfume, spruce, woody

Esters; dark fruit (cherries, raisins, plums, raisins, stone fruit), light fruit (apples, bananas, bubblegum, citrus, mixed berries, pears, strawberries)

Other aromatics; alcohol, cheesy, cider, clean (no fermentation characteristics), clove, diacetyl=butter, toffee or butterscotch, honey, medicinal or "band aid" phenols, pepper, skunky, soapy, sour, sulfur as H₂S or SO₂, acetaldehyde=green apples or latex paint, vinegar or acetic acid, warty

Appearance 3 points

Clarity; bright, brilliant, clear, cloudy, dull, hazy, murky, sparkling

Color; amber, brown, black, gold, mahogany, orange, red, yellow

Head; creamy, collar, color, dense, lace, legs, loose, retention, rocky, tight, bubble size

Flavor 20 points

Malt; aromas plus base malt breakdown **Pale** (bread, biscuit, lightly toasted), **Pils** (crackers, grainy or Graham cracker-like), **Wheat** (spicy, bready, grainy), **Vienna** (toast, sweet, complex, rich, melanoiden), **Munich** (toast, sweet, complex, more full than Vienna but not roasty or caramel)

Hops; aromas plus bitterness

Fermentation Characteristics; esters, good and bad phenols, higher alcohols, sour, hot, solvent

Balance; bitter, fruity, malty, neutral, sweet, spicy, tart

Finish/aftertaste; bitter, clean, cloying, crisp, dry, lingering, sweet, tart, short

Other characteristics; bacon, damp soil, lactic, minerals, musty, metallic, oxidized; cardboard, paper or sherry-like, rotten fruit, smoke, stale, vanilla, vegetables, winy/vinous, woody

Mouthfeel 5 points

Body; viscosity and fullness

Carbonation; carbonic bite, effervescent, prickly

Warmth; detected when alcohol > 6%

Creaminess

Astringency; puckering, lingering harshness and/or dryness in the finish/aftertaste, harsh graininess, huskiness, like fruit skins

Other palate sensations; crisp, chewy, cloying, smooth, slick

Overall 10 points for

Drinking pleasure and Compliments to the brewer: complex, could I have your recipe please?, delicate, easy drinking, elegant maltiness, excellent, fresh, great as is, good job, impressive, make more, nice beer, please try again, refreshing, rich, robust, smooth, thanks, thirst quenching, well brewed,

Assessments: appropriate (or not), fine example, good (or not), harsh, in style, just right, no apparent, no flaws, OK, overly, per style, poor, too (much or little), point out missing elements

Intensities: assertive, big, full, high, lacks, long, low, med, moderate, overpowering, pronounced, restrained, rich, short, slight, strong, thin, weak

Mini vocabulary: **malt** - grainy, bready, toast, roast, caramel; **hops** - citrus, earthy, floral, spicy; **esters** - light and dark fruit; **phenols** spicy (good) and medicinal (bad); **higher alcohols** - floral, harsh, hot and/or solvent

Gordon Strong on filling out BJCP scoresheets

I've written up thousands of scoresheets so I tend to do it very quickly.

If I can see the beer being poured, I start thinking about what I want to write for appearance. I can usually write down the appearance while I'm initially watching it being poured, picking it up and taking my first sniff.

I usually comment on head, color and clarity in that order. I can see the head without having to look through the beer. I can see the color, although sometimes I might want to use a flashlight if it's a dark beer. If I'm using a flashlight, I'll look for color and clarity at the same time. I often use the white tablecloth or the back of a scoresheet as a reference for color. I use the front of a scoresheet for clarity (try to read something through the beer/cup). Shine a light through the glass and see how bright it is. Note head retention later. Assign a score now. If this is taking a while, skip to the aromatics and come back.

Start writing down initial aroma perceptions. Focus on all the various components that are or aren't there (malt, hops, yeast, alcohol, esters, sweetness, any faults). Write them down in order of detection/intensity. Comment on balance later. Don't score yet.

Taste the beer. Write down initial flavor perceptions, but then score mouthfeel. You may be able to do this with one sip. For mouthfeel, I usually assess body and carbonation at the same time, followed by any alcohol, astringency, sourness or other palate sensations. Assess against style and assign a score for mouthfeel.

Continue to write down perceptions for flavor, in order of appearance. Discuss what you taste first, how it tastes while in your mouth (the palate), and what happens as you swallow (finish and aftertaste). Describe the intensity and character of malt, hops, yeast by-products, bitterness, and alcohol. Note if the finish is dry or sweet. Note if there are any faults. Discuss the balance of the components. Assess against style. Assign a score for flavor.

Go back and check the aroma again. Make note of anything that has changed. Assess against style. Assign a score for aroma.

Think about what you want to assign as a score for overall impression. Add up the total score but don't write it down. Check the total against the scoring guide. If it doesn't make sense, adjust the overall impression and possibly the individual category scores. Write down the score for overall impression and the final score.

Write down overall impressions. Make any recommendations not already identified in individual sections. Identify the major elements that drove the final score.

Make sure all the checkboxes are checked appropriately, including the ones on the left side. Double-check your math. Make sure the header information is filled out on the scoresheet. The stewards should check all of this, but you should check it first.

Regarding the assignment of scores, I sometimes use different approaches. For a very low scoring beer, I'll assign scores for any positive things I can find (starting from a zero base). For a very high scoring beer, I'll start with the maximum score and deduct for any negatives. For an average beer, I'll start with half the points assigned and go up/down based on how better/worse each category is from average.

I tend to score in a bottoms-up fashion, although I use the Scoring Guide as a top-down sanity check. Sometimes I'll use a holistic approach and assign a score based on percent of perfection. Sometimes I use the little prompter phrases (malt, hops, balance, etc.) and assign points to each section, then sum them up. I use different methods at different times, and sometimes use multiple methods as a check.

I tend to adjust scores based on the Scoring Guide more than anything. Obviously, you'll want to assign scores in a flight so that the final scores match your impression of their rank. You'll need to be consistent with your scoring so this happens. I usually keep some of the top ranked beer in a glass on the table for comparison. I hate going back at the end of a flight and rescoring the beers. I like to decide the relative placement of a beer within the flight before the paperwork leaves my hand. If we can't decide while we have the beer in our hands, how are we going to do a better job at the end of the flight after the beers have warmed up?



BEER FAULT LIST

AHA/BJCP Sanctioned Competition Program

See <http://www.bjcp.org/faults.php> for a complete list

Look up terminology at <http://www.bjcp.org/cep/vocab>



The
American
Homebrewers
Association

<http://www.bjcp.org>

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Characteristic	Possible Solutions
Acetaldehyde fresh cut green apples	Make sure fermentation is vigorous using healthy yeast. Allow full attenuation. Leave beer on yeast longer. Oxygenate wort fully. Try another yeast strain. Make sure sufficient yeast nutrients are available. Let beer age longer.
Alcoholic/Hot spicy, vinous, warming from Ethanol and higher alcohols	Lower fermentation temperature. Use a less attenuative yeast strain. Check yeast health. Use less fermentables. Use less sugary adjuncts. Check for possible infection. Raise mash temperature. Let beer age longer before consuming.
Astringent Mouth-puckering, lingering harshness, husk-like graininess	Don't oversparge. Don't overcrush grain. Don't boil grain. Don't sparge with water above 170°. Don't sparge with water with a high pH (over 6). Use water with lower sulfate content. Use less dark grains (especially black malt). Use less whole hops (especially high-alpha hops or simply large quantities of hops). Avoid use of raw spices, fruit pith and fruit skins.
Diacetyl Buttery, Butterscotch, Movie Popcorn	Try another yeast strain. Oxygenate wort before fermentation. Reduce primary fermentation temperature. Use a warmer/longer secondary fermentation. Use healthy yeast in sufficient quantity. Make sure sufficient yeast nutrients are available (including reducing adjunct use). Check for infection. Allow beer to rest on yeast until fully attenuated. Don't rack, filter or fine too early. Don't crash-cool yeast. If lager, raise temperature for a diacetyl rest at end of fermentation. Bottle condition beer at cellar temperatures. Avoid adding oxygen during fermentation.
DMS (Dimethyl Sulfide) Cooked corn	Use a long, rolling, open boil. Reduce amount of pilsner malt. Cool quickly before pitching yeast. Check for infection. Make sure you use a healthy, vigorous yeast starter.
Estery Fruity (strawberry, pear, banana, apple, grape, citrus)	Lower fermentation temperature. Try a cleaner yeast strain. Oxygenate wort sufficiently. Reduce original gravity. Check hop variety for fruity characteristics. Avoid carrying over excessive break into fermenter. Pitch a sufficient quantity of yeast (avoid yeast stress). Bottle condition and age beer longer at cellar temperatures to reduce esters.
Grassy Fresh-cut grass, green leaves	Reduce dry-hopping or quantity of whole hops. Avoid oxygen pickup. Check hops and malt for freshness.
Light-struck Skunky, catty	Don't expose wort/beer to sunlight after hops have been added. Don't use clear or green glass bottles. Avoid use of Cluster hops in late hop additions.
Medicinal (chlorophenolic) Chloroseptic, medicine cabinet	Avoid water with chlorine or chloramines (use RO water if necessary). Avoid bleach sanitizers. Reduce astringency/grain husk sources. Avoid excessive whole hop use. Check for infection.
Metallic Iron, copper, coins, blood	Check water for metallic ions. Reduce water salts. Check equipment condition for rust. Make sure stainless steel equipment is properly passivated. Fully rinse sanitizer. Try using RO water and add salts as needed.
Musty Stale, moldy, cellar-like	Avoid oxidation (see Oxidized). Check sanitation. Avoid peat-smoked malt. Check water for freshness and taste. Use fresh ingredients (especially malt and hops).
Oxidized Stale, papery, cardboard	Check for oxygen being introduced into beer post-fermentation. Don't splash when racking/bottling. Check caps and/or keg seals for good fit. Purge bottles/kegs with CO ₂ prior to filling. Store beer cool. Drink beer when fresh.
Plastic (Phenolic) Band-aid, electrical tape, styrene	Check for infection. Check yeast strain and health. Lower fermentation temperature.
Solvent/Fusel Hot burning on palate	Lower fermentation temperature. Pitch a sufficient quantity of healthy, active yeast. Check for infection. Try a different yeast strain.
Sour/Acidic Lactic acid, citric acid, sharp, clean sourness	Check for infection. Check yeast strain. Don't mash for long periods of time at low temperatures.
Smoky (Phenolic) Smoke-like, charcoal, burnt	Check for scorched mash or boil. Check excessive use of dark malts. Check for infection.
Spicy (Phenolic) Clove, pepper, vanilla, etc.	Use a different yeast strain and/or hop variety. Adjust fermentation temperature (sometimes higher, sometimes lower, depending on yeast strain and beer style).
Sulfury Rotten eggs, burning matches	Check for infection. Check water for excessive sulfates. Check yeast health. Check for yeast autolysis (beer left on yeast too long at warm temperatures). Try another yeast strain.
Vegetal Cooked, canned or rotten vegetables (cabbage, celery, onion, asparagus, parsnip)	Encourage a fast, vigorous fermentation (use a healthy, active starter to reduce lag time; this is often due to bacterial contamination of wort before yeast becomes established). Check sanitation. Check for aged, stale, or old ingredients (especially old liquid malt extract). Avoid oversparging at low temperatures.
Vinegary Acetic Acid, vinegar-like sourness	Check for infection. Check yeast strain. Check for oxidation sources (acetobacter is aerobic).
Yeasty Bready, sulfury, yeast-like	Use a more flocculent yeast strain. Allow yeast sufficient time to flocculate. Filter beer or use clarifying agents. Avoid carrying over as much yeast. Age the beer longer. Try another yeast strain.

C#	S#	Category Name	Style Name	OG	FG	ABV%	IBU	SRM	Region	History	Commercial Example
1	A	Light Lager	Lite American Lager	1.028-40	0.998-1.008	2.8-4.2	8-12	2-3	~	~	Miller Lite, Bud Light, Coors Light
1	B	Light Lager	Standard American Lager	1.040-50	1.004-10	4.2-5.3	8-15	2-4	~	~	Pabst Blue Ribbon, Miller High Life, Budweiser
1	C	Light Lager	Premium American Lager	1.046-56	1.008-12	4.6-6.0	15-25	2-6	~	~	MGD, Corona Extra, Michelob, Heineken, Beck's
1	D	Light Lager	Munich Helles	1.045-51	1.008-12	4.7-5.4	16-22	3-5	Munich, DE	~	Paulaner Premium Lager, Spaten Premium Lager
1	E	Light Lager	Dortmunder Export	1.048-56	1.010-15	4.8-6.0	23-30	4-6	Dortmund, DE	~	DAB Export
2	A	Pilsner	German Pilsner (Pils)	1.044-50	1.008-13	4.4-5.2	25-45	2-5	~	Copy of Bohemian Pils	Bitburger, Left Hand Polestart Pilsner, Spaten Pils
2	B	Pilsner	Bohemian Pilsener	1.044-56	1.013-17	4.2-5.4	35-45	3.5-6	~	1842, first clear, light colored beer brewed by immigrants, gone after prohibition, revived by homebrewers	Pilsner Urquell, Budweiser Czechar
2	C	Pilsner	Classic American Pilsner	1.044-60	1.010-15	4.5-6.0	25-40	3-6	USA	Original amber lager, brought to Mexico by Austrians in 1800s	Occasional brewpub/microbrew specials
3	A	European Amber Lager	Vienna Lager	1.046-52	1.010-14	4.5-5.5	18-30	10-16	Mexico	Adapted from Vienna Lager ~1840. Brewed in spring	Negra Modelo
3	B	European Amber Lager	Oktobertfest/Märzen	1.050-57	1.012-16	4.8-5.7	20-28	7-14	~	~	Paulaner, Spaten, Hofbrau Oktoberfest
4	A	Dark Lager	Dark American Lager	1.044-56	1.008-12	4.2-6.0	8-20	14-22	~	~	Shiner Bock, Saint Pauli Girl Dark, Heineken Dark
4	B	Dark Lager	Munich Dunkel	1.048-56	1.010-16	4.5-5.6	18-28	14-28	Munich, DE	Dark because of water carbonate.	Ayinger Altbairisch, Paulaner Alt Munchner Dunkel
4	C	Dark Lager	Schwarzbier	1.046-52	1.010-16	4.4-5.4	22-32	17-30	Southern Thuringen and Northern Franconia, DE	Variant of Munich Dunkel	Samuel Adams Black Lager
5	A	Bock	Maibock/Helles Bock	1.064-72	1.011-18	6.3-7.4	23-35	6-11	~	Associated with spring and May.	Ayinger Maibock, Hofbrau Maibock
5	B	Bock	Traditional Bock	1.064-72	1.013-19	6.3-7.2	20-27	14-22	Einbeck, later Munich, DE	Bock named from "Einbeck". Associated with billy goats.	Einbecker Ur-Bock Dunkel
5	C	Bock	Doppelbock	1.072-112	1.016-24	7.0-10.0	16-26	6-25	Bavaria/Munich	Monks of St. Francis of Paula. Many are named ending with 'ator' based on original Salvator.	Paulaner Salvator, Spaten Optimator, Samuel Adams Double Bock
5	D	Bock	Eisbock	1.078-120	1.020-35	9.0-14.0	25-35	18-30	Kulmbach, DE	Concentrated doppelbock, via freezing.	Kulmbacher Reichelbräu Eisbock
6	A	Light Hybrid	Cream Ale	1.042-55	1.006-12	4.2-5.6	15-20	2.5-5	USA	Ale version of American lager brewed in warmer areas. Many are krausenend.	Genesee Cream Ale, Anderson Valley Summer Solstice
6	B	Light Hybrid	Blonde Ale	1.038-54	1.008-13	3.8-5.5	15-28	3-6	USA	Entry level craft beer.	Russian River Aud Blonde, Rogue Oregon Golden Ale, Widmer Blonde, Redhook Blonde
6	C	Light Hybrid	Kölsch	1.044-50	1.007-11	4.4-5.2	20-30	3.5-5	Cologne, DE	Protected by the Kölsch Konvention, only brewed in region. A "Vollbier".	Reissdorf, Gaffel, Goose Island Summerfine, Harpoon Summer Beer, Shiner Kölsch
6	D	Light Hybrid	American Wheat or Rye Beer	1.040-55	1.008-13	4.0-5.5	15-30	3-6	~	~	Bell's Oberon, Pyramid Hefe-Weizen, Widmer Hefeweizen, Sierra Nevada Unfiltered Wheat Beer
7	A	Amber Hybrid	North German Altbier	1.046-54	1.010-15	4.5-5.2	25-40	13-19	not in Dusseldorf	"alt" means old style, so an ale. But typically lager.	DAB Traditional, Grolsch Amber
7	B	Amber Hybrid	California Common Beer	1.048-54	1.011-14	4.5-5.5	30-45	10-14	West Coast, USA	Shallow open fermenters (coolships) with cool/lager yeast	Anchor Steam, Flying Dog Old Scratch Amber Lager
7	C	Amber Hybrid	Düsseldorf Altbier	1.046-54	1.010-15	4.5-5.2	35-50	11-17	Düsseldorf, DE	Style predates lager yeasts, but is like cellar temp. Alternative to country pale ale. ~1900. Widespread after "Butsonizing".	Diebels Alt, Schlösser Alt
8	A	English Pale Ale	Standard/Ordinary Bitter	1.032-40	1.007-11	3.2-3.8	25-35	4-14	England	Originally gravity or hand pumped at cellar temp. Alternative to country pale ale. ~1900. Widespread after "Butsonizing".	Fuller's Chiswick Bitter
8	B	English Pale Ale	Special/Best/Premium Bitter	1.040-48	1.008-12	3.8-4.6	25-40	5-16	England	Stronger version of Special.	Fuller's London Pride, Rogue Younger's Special Bitter
8	C	English Pale Ale	Extra Special/Strong Bitter (English Pale Ale)	1.048-60	1.010-16	4.6-6.2	30-50	6-18	England/USA	Less hops, long cool ferment.	Fullers ESB, Bass Ale
9	A	Scottish & Irish Ale	Scottish Light 60/-	1.030-35	1.010-13	2.5-3.2	10-20	9-17	Scotland	Less hops, long cool ferment.	Belhaven 60/-, McEwan's 60/-, Madlay 60/-
9	B	Scottish & Irish Ale	Scottish Heavy 70/-	1.035-40	1.010-15	3.2-3.9	10-25	9-17	Scotland	Less hops, long cool ferment.	Caledonian Amber Ale, Belhaven 70/-
9	C	Scottish & Irish Ale	Scottish Export 80/-	1.040-54	1.010-16	3.9-5.0	15-30	9-17	Scotland	Less hops, long cool ferment.	Orkney Dark Island, Caledonian 80/- Export Ale
9	D	Scottish & Irish Ale	Irish Red Ale	1.044-60	1.010-14	4.0-6.0	17-28	9-18	~	~	O'Hara's Irish Red Ale, Smithwick's Irish Ale
9	E	Scottish & Irish Ale	Strong Scotch Ale	1.070-130	1.018-56	6.5-10.0	17-35	14-25	Scotland	"wee heavy", cool ferment, low hops. Adapted from English pale ale. US ingredients. Less caramel, more hops.	Belhaven Wee Heavy, McEwan's Scotch Ale, AleSmith Wee Heavy, Orkney Skull Splitter
10	A	American Ale	American Pale Ale	1.045-60	1.010-15	4.5-6.2	30-45	5-14	USA	Known as Red Ales. Came from the North-West	Sierra Nevada Pale Ale, Stone Pale Ale, Bear Republic XP Pale Ale
10	B	American Ale	American Amber Ale	1.045-60	1.010-15	4.5-6.2	25-40	10-17	~	~	Deschutes Conder cone Red, Pyramid Broken Rake, Lagunitas Censored Ale
10	C	American Ale	American Brown Ale	1.045-60	1.010-16	4.3-6.2	20-40	18-35	~	Originated by American homebrewers	Bell's Best Brown, Lost coast Downtown Brown, Left Hand Deep Cover Brown Ale

C#	S#	Category Name	Style Name	OG	FG	ABV%	IBU	SRM	Region	History	Commercial Example
11	A	English Brown Ale	Mild	1.030-38	1.008-13	2.8-4.5	10-25	12-25	England, Midlands near Birmingham	May have evolved from porters. Mild refers to low hopping, or new beer.	Moorhouse Black Cat
11	B	English Brown Ale	Southern English Brown Ale	1.033-42	1.011-14	2.8-4.1	12-20	19-35	London, England	"London-style". Response to vat porters, and milds. Good with London waters.	Harvey's Nut Brown Ale
11	C	English Brown Ale	Northern English Brown Ale	1.040-52	1.008-13	4.2-5.4	20-30	12-22	England	Named based on geography.	Newcastle Brown Ale, Samuel Smith's Nut Brown Ale, Samuel Adams Brown Ale
12	A	Porter	Brown Porter	1.040-52	1.008-14	4.0-5.4	18-35	20-30	England	Evolved from beers/gyles called "Entire". Precursor to Stout.	Fuller's London Porter, Samuel Smith Taddy Porter
12	B	Porter	Robust Porter	1.048-65	1.012-16	4.8-6.5	25-50	22-35	~	Consumed by porters and laborers. Historical or American version of Porter.	Anchor Porter, Sierra Nevada Porter, Deschutes Black Butte Porter, Rogue Mocha Porter
12	C	Porter	Baltic Porter	1.060-90	1.016-24	5.5-9.5	20-40	17-30	Baltic Sea	Derived from English porters and Russian Imperial Stouts	Southampton Imperial Baltic Porter
13	A	Stout	Dry Stout	1.036-50	1.007-11	4.0-5.0	30-45	25-40	~	Originally stronger porter. No longer stronger than porters.	Guinness Draught Stout, O'Hara's Celtic Stout, Russian River O.V.L. Stout
13	B	Stout	Sweet Stout	1.044-60	1.012-24	4.0-6.0	20-40	30-40	~	Milk, or Cream stout. Milk sugar as sweetener.	Samuel Adams Cream Stout, Left Hand Milk Stout, Widmer Snowplow Milk Stout
13	C	Stout	Oatmeal Stout	1.048-65	1.010-18	4.2-5.9	25-40	22-40	England	English seasonal variant of Sweet. No lactose.	Samuel Smith Oatmeal Stout, Mclay's Oat Malt Stout
13	D	Stout	Foreign Extra Stout	1.056-75	1.010-18	5.5-8.0	30-70	30-40	for Tropical Markets	Stronger "Tropical Stouts", for tropical markets. Guinness Foreign Extra Stout brewed since early 1800s.	Guinness Foreign Extra Stout, Coopers Best Extra Stout
13	E	Stout	American Stout	1.050-75	1.010-22	5.0-7.0	35-75	30-40	~	~	Rogue Shakespeare Stout, Sierra Nevada Stout
13	F	Stout	Russian Imperial Stout	1.075-115	1.018-30	8.0-12.0	50-90	30-40	England for Baltics/Russia	Popular with Russian Imperial Court. Embraced and extended by American craft brewers.	Stone Imperial Stout, Samuel Smith Imperial Stout, Deschutes The Abyss, Rogue Imperial Stout, Bear Republic Big Bear Black Stout
14	A	India Pale Ale (Ipa)	English IPA	1.050-75	1.010-18	5.0-7.5	40-60	8-14	England for India	Brewed to survive sea from England to India. Derived from English Pale Ales.	Fuller's IPA, Samuel Smith's India Ale
14	B	India Pale Ale (Ipa)	American IPA	1.056-75	1.010-18	5.5-7.5	40-70	6-15	USA	American version of England IPA.	Alesmith IPA, Russian River Blind Pig IPA, Stone IPA, Bear Republic Racer 5 IPA
14	C	India Pale Ale (Ipa)	Imperial IPA	1.070-90	1.010-20	7.5-10.0	60-120	8-15	USA	Stronger version of American IPA.	Russian River Pliny the Elder, Stone Runtation IPA
15	A	German Wheat & Rye	Weizen/Weissbier	1.044-52	1.010-14	4.3-5.6	8-15	2-8	Southern Germany	Traditional for region, for summer.	Paulaner Gefe-Weizen
15	B	German Wheat & Rye	Dunkelweizen	1.044-56	1.010-14	4.3-5.6	10-18	14-23	Bavaria, DE	Considered healthier in the 50s/60s. Aventinus is oldest, from 1907 at Weisse Brauhaus. Response to doppelbocks	Tucher Dunkles Hefe Weizen
15	C	German Wheat & Rye	Weizenbock	1.064-90	1.015-22	6.5-8.0	15-30	12-25	Munich, DE		AleSmith Weizenbock
15	D	German Wheat & Rye	Roggenbier (German Rye)	1.046-56	1.010-14	4.5-6.0	10-20	14-19	Regensburg, Bavaria, DE	Rye based dunkelweizen.	Paulaner Roggen
16	A	Belgian & French Ale	Witbier	1.044-52	1.008-12	4.5-5.5	10-20	2-4	~	400 year old style, died in 50s, revived by Pierre Celis at Hoegaarden.	Hoegaarden Wit
16	B	Belgian & French Ale	Belgian Pale Ale	1.048-54	1.010-14	4.8-5.5	20-30	8-14	Antwerp and Brabant	Produced by old breweries, mostly perfected after WWII with influence from England.	Russian River Perdition
16	C	Belgian & French Ale	Saison	1.048-65	1.002-12	5.0-7.0	20-35	5-14	Wallonia, BE	Summer seasonal for French speaking region. Brewed by farmers to drink over summer.	Saison Dupont, Vieille Provision, New Belgium Saison, Pizza Port SPF-45, Lost Abbey Red Barn Ale
16	D	Belgian & French Ale	Bière de Garde	1.060-80	1.008-16	6.0-8.5	18-28	6-19	Northern France	Farmhouse ale brewed early spring, and lagered until summer. "cellar" character.	Lost Abby Avante Garde (blond)
16	E	Belgian & French Ale	Belgian Specialty Ale	~	~	~	~	~	Belgium	~	Orval, Russian River Temptation, Lost Abbey Cuvee de Tomme and Devotion
17	A	Sour Ale	Berliner Weisse	1.028-32	1.003-06	2.8-3.8	3-8	2-3	Berlin, DE	Mentioned by Napoleon's troops in 1809 as "the Champagne of the North". Only two traditional breweries left.	Schultheiss Berliner Weisse, Southampton Berliner Weisse
17	B	Sour Ale	Flanders Red Ale	1.048-57	1.002-12	4.6-6.5	10-25	10-16	West Flanders, BE	Rodenbach, est 1820. Aged ~2y in huge oak barrels, which house bacteria to sour the beer. Often blended.	Rodenbach Klassiek, Rodenback Grand Cru, Southampton Flanders Red Ale
17	C	Sour Ale	Flanders Brown Ale/Oud Bruin	1.040-74	1.008-12	4.0-8.0	20-25	15-22	East Flanders, BE	"Old ale" tradition by Liefman going back to 1600s. "provision beer" traditionally more sour. Aged in steel	Liefman's Goudenband
17	D	Sour Ale	Straight (Unblended) Lambic	1.040-54	1.001-10	5.0-6.5	0-10	3-7	Senne Valley, Brussels	Spontaneously fermented farmhouse ale, centuries old.	Cantillon Grand Cru Bruocsella
17	E	Sour Ale	Gueuze	1.040-60	1.000-06	5.0-8.0	0-10	3-7	Senne Valley, Brussels	Spontaneously fermented farmhouse ale, centuries old. Now, sometimes sweetened.	Boon Oude Gueuze

C#	S#	Category Name	Style Name	OG	FG	ABV%	IBU	SRM	Region	History	Commercial Example
										Spontaneously fermented farmhouse ale, centuries old. Now, sometimes sweetened. Traditionally late fruit additions for product variety.	
17	F	Sour Ale	Fruit Lambic	1.040-60	1.000-10	5.0-7.0	0-10	3-7	Senne Valley, Brussels		Boon Framboise Marriage Parfait
18	A	Belgian Strong Ale	Belgian Blond Ale	.062-75	.008-18	0-7.5	5-30	-7	~	Recent to appeal to EU Pils drinkers.	Leffe Blond
18	B	Belgian Strong Ale	Belgian Dubbel	.062-75	.008-18	0-7.6	5-25	0-17	~	Originated in monasteries in Middle Ages, and revived in mid-1800s after Napoleonic era.	Westmalle Dubbel, Chimay Premiere (Red), Russian River Benedictin, Lost Abbey Lost and Found Abbey Ale
18	C	Belgian Strong Ale	Belgian Tripel	.075-85	.008-14	5-9.5	0-40	5-7	~	Popularized with Trappist Westmalle. Traditionally bottle conditioned.	Westmalle Tripel, Chimay Cinq Cents (White)
18	D	Belgian Strong Ale	Belgian Golden Strong Ale	.070-95	.005-16	5-10.5	2-35	-6	~	Moortgat brewery post WWII, response to Pils.	Duvel, Russian River Damnation, AleSmith Horny Devil
18	E	Belgian Strong Ale	Belgian Dark Strong Ale	.075-110	.010-24	0-11.0	0-35	2-22	~	Unique in character.	Westvleteren 12 (yellow cap), Chimay Grande Reserve (Blue), Lost Abbey Judgment Day, Russian River Salvation
19	A	Strong Ale	Old Ale	.060-90	.015-22	0-9.0	0-60	0-22	~	Malty winter seasonal, or long aged stock ale. Blended or served straight.	Samuel Smith's Winter Welcome, Fuller's 1845
19	B	Strong Ale	English Barleywine	.080-120	.018-30	0-12.0	5-70	-22	~	Strongest ale offered from a brewery. Commonly aged. Winter seasonal.	Fuller's Golden Pride, AleSmith Old Numbskull
19	C	Strong Ale	American Barleywine	.080-120	.016-30	0-12.0	0-120	0-19	~	Strongest ale offered from a brewery. Commonly aged. Winter seasonal.	Sierra Nevada Bigfoot, Rogue Old Crustacean, Anchor Old Foghorn, Stone Old Guardian, Lagunitas Olde GritaleWine
20	-	Fruit	Varies with base beer style	~	~	~	~	~	~	~	Bell's Cherry Stout, Dogfish Head Apritrop, Pyramid Apricot Ale
21	A	Spice/Herb/Vegetable	Spice, Herb, or Vegetable Beer	~	~	~	~	~	~	~	AleSmith Speedway Stout, Rogue Hazelnut Nectar, Dogfish Head Midas Touch
21	B	Spice/Herb/Vegetable	Christmas/Winter Specialty Spiced Beer	~	~	~	~	~	~	American or Belgian tradition.	Anchor Our Special Ale, Samuel Adams Winter Lager
22	A	Smoke-Flavored & Wood-Aged	Classic Rauchbier	1.050-57	1.012-16	4.8-6.0	20-30	12-22	Bamberg, Bavaria, DE	Beechwood-smoked malt in a Marzen-style amber ale.	Victory Scarlet Fire Rauchbier
22	B	Smoke-Flavored & Wood-Aged	Other Smoked Beer	~	~	~	~	~	~	Mostly porters and scotch ales, but also in other German styles	Alaskan Smoked Porter, Stone Smoked Porter, Rogue Smoke
22	C	Smoke-Flavored & Wood-Aged	Wood-Aged Beer	~	~	~	~	~	~	Traditionally only for specialty beers. Popular with American craft brewers. Oak casks and barrels are traditional.	The Lost Abbey Angel's Share Ale, Firestone Walker Double Barrel Ale
23	-	Specialty	Varies with base beer style	~	~	~	~	~	~	~	Samuel Adams Triple Rock and Utopias, Rogue Dad's Little Helper and Honey Cream Ale, Bear Republic Rocket Ale, Stone Arrogant Bastard
24	A	Traditional Mead	Dry Mead	~	0.990-1.010	~	N/A	N/A	~	~	White Winter Dry Mead
24	B	Traditional Mead	Semi-Sweet Mead	~	1.010-25	~	N/A	N/A	~	~	Lurgashall English Mead
24	C	Traditional Mead	Sweet Mead	~	1.025-50	~	N/A	N/A	~	~	Lurgashall Christmas Mead
25	A	Melomel (Fruit Mead)	Cyser (Apple Melomel)	~	~	~	N/A	N/A	~	~	White Winter Cyser
25	B	Melomel (Fruit Mead)	Pymment (Grape Melomel)	~	~	~	N/A	N/A	~	~	Redstone Pinot Noir
25	C	Melomel (Fruit Mead)	Other Fruit Melomel	~	~	~	N/A	N/A	~	~	White Winter Blueberry
26	A	Other Mead	Metheglin	~	~	~	N/A	N/A	~	~	Bonair Chili Mead
26	B	Other Mead	Braggot	~	~	~	N/A	N/A	~	~	Rabbit's Foot Diabhal and Bière de Miele
26	C	Other Mead	Open Category Mead	~	~	~	N/A	N/A	~	~	Jadwiga
27	A	Standard Cider & Perry	Common Cider	1.045-65	1.000-20	5-8%	N/A	N/A	~	~	Red Barn Cider Jonagold SemiDry and Sweetie Pie
27	B	Standard Cider & Perry	English Cider	1.050-75	0.995-1.010	6-9%	N/A	N/A	~	~	Westcott Bay Traditional Very Dry
27	C	Standard Cider & Perry	French Cider	1.050-65	1.010-20	3-6%	N/A	N/A	~	~	West County Reine de Pomme
27	D	Standard Cider & Perry	Common Perry	1.050-60	1.000-20	5-7%	N/A	N/A	~	~	White Winter Hard Pear Cider
27	E	Standard Cider & Perry	Traditional Perry	1.050-70	1.000-20	5-9%	N/A	N/A	~	~	Bordelet Poire Authentique and Poire Granit
28	A	Specialty Cider & Perry	New England Cider	1.060-100	0.995-1.010	7-13%	N/A	N/A	~	~	None
28	B	Specialty Cider & Perry	Fruit Cider	1.045-70	0.995-1.010	5-9%	N/A	N/A	~	~	West County Blueberry-Apple Wine
28	C	Specialty Cider & Perry	Apple Wine	1.070-100	0.995-1.010	9-12%	N/A	N/A	~	~	AEppelTreow Summer's End
28	D	Specialty Cider & Perry	Other Specialty Cider or Perry	1.045-100	0.995-1.020	5-12%	N/A	N/A	~	~	Red Barn Cider Fire Barrel

Practice Exam I

by John Aitchson, BJCP National Judge

1. Which one of these is not one of the three primary purposes of the BJCP
 - a. Improve the quality of homebrewed beer
 - b. Promote beer literacy
 - c. Recognize evaluation and tasting of beer.
2. TF A Master Judge needs a score of 90 on the Beer Judge Written Proficiency Exam, a score of 90 on the Beer Tasting Exam, and a minimum of 50 judging points.
3. TF Judges comments must not include phrases like “did you . . .”
4. TF The consensus score assigned to the beer is not necessarily an average score.
5. Which one of these styles would you expect to find the most hop bitterness
 - a. Robust porter
 - b. Sweet Stout
 - c. Foreign Extra Stout
6. Which one of the above should have the most body?
7. Which one of these is consistent for an all grain Bohemian Pilsner classic recipe
 - a. One would normally use relatively carbonate water in the mash
 - b. The mashing method would employ a multi-step decoction
 - c. The last hop addition would be Saaz within the last 5 minutes of the boil
8. Which of these is not accurate for a Belgian Abbey Dubbel all grain recipe
 - a. A single infusion mash should be employed
 - b. Small amount of roasted barley should be added for color
 - c. Dark candy sugar is added for color and flavor
9. What would give the Dubbel a fruity flavor?
 - a. Belgian yeast fermented at warm temperatures
 - b. Hints of pineapple or raisin added at knockoff
 - c. Special B or other caramels used in the mash
10. TF Diacytel can be caused by removing a beer from the yeast too soon.
11. TF Cardboard is appropriate in a few styles of beer.
12. Which of these classic examples of beers would be brewed in London
 - a. Cantillion Grand Cru
 - b. Fullers ESB
 - c. Traquair House Ale
13. What characteristic would you expect from beers brewed in the Senne Valley
 - a. They would have a sour and barnyard flavor
 - b. They would have a high mineral character
 - c. They would have an abundance of bittering hops.
14. Which of these is not part of the malting process
 - a. Soaking
 - b. Drying
 - c. Mashing
15. TF A single infusion mash is sufficient for well modified malt.
16. Which of these malts is toasted when kiln
 - a. Pilsner
 - b. Vienna
 - c. Chocolate
17. TF A Hellesbock has more hop character than either an Eisbock or a Doppelbock
18. Which of these German Beers is top fermented

- a. Altbier
 - b. Biere de Garde
 - c. Dortmunder Export
19. Which of these statements isn't true about the boil
- a. All enzymatic activity stops
 - b. The wort is condensed
 - c. Hops are coagulated
20. TF You should use boiling water in your sparge because it maximizes yield and creates a hot break.
21. TF One would expect a biscuity flavor out of a California Common
22. Which of these beers is a classic example of a Belgian Tripel
- a. North Coast Prangster
 - b. Chimay Cinq Cents
 - c. Delerium Tremens
23. Which of these beers is not a classic example of a Fruit Lambic
- a. Boon Oude Kriek
 - b. Lindemanns Framboise
 - c. Cantillion Lou Pepe Framboise
24. TF Rauchbier is a beer style commonly associated with Bamberg
25. TF Kolsch is a beer style commonly associated with Cologne
26. What beer style is commonly thought of as French?
- a. Biere de Garde
 - b. Saison
 - c. Oud Bruin
27. TF One would often find Vienna Malt in a Munich Helles
28. TF When one talks about yeast flocculation, one is describing the ability of the yeast to produce fruity esters in the fermentation process
29. What type of malt would one expect to employ a decoction technique
- a. German Munich Malt
 - b. English Maris Otter Malt
 - c. Undermodified Moravian Pilsner Malt
30. TF Cascade hops and considered Noble Hops
31. TF Alpha acids will give the brewer a good indication of final hop flavor
32. TF Porters and Stouts are brewed in places like London and Dublin to offset the high amount of carbonates in the water
33. Which of these beers is not classified a pilsner by the BJCP
- a. Dortmunder Export
 - b. Classic American Lager
 - c. German Pils
34. Which of these beers should have the lowest OG
- a. Berliner Weiss
 - b. Munich Helles
 - c. American Pale Lager
35. Which of these statements is false about the boil
- a. It isomerizes the hops
 - b. It raises the PH of the wort
 - c. It sterilizes the wort
 - d. It stops the mash enzymes from converting the sugars

36. TF In a Bavarian Hefeweizen, the yeast can produce phenols that are clove like and esters that are banana like.
37. TF Rauchbiers are produced in Munich by drying the malt over an open beech fire.
38. TF Bubble gum like flavors are never appropriate in a beer.
39. TF Buttery flavors are never appropriate in a beer.
40. TF In order to become a Grand Master II, one needs a score of 90 or more on the BJCP written proficiency exam, 200 experience points, and service to the BJCP.
41. Which of these beers would you expect to have the highest OG
 - a. Scottish Export
 - b. Scottish Heavy
 - c. Best Bitter
42. In what way is a Mild different from a Scottish Light
 - a. A Mild is sometimes fermented with lager yeast
 - b. Malt flavor isn't as important in a Mild
 - c. A Mild often has esters driven by the yeast
43. Which of these beers does the BJCP consider a classic example of an American IPA?
 - a. Russian River Pliny the Elder
 - b. Port Brewing Shark Bite
 - c. Anchor Liberty Ale
44. TF The steward at the table has sole responsibility for competing the cover sheets for the competition.
45. TF In order to achieve a National rank, a beer judge needs to take the BJCP Legacy Exam
46. Which of these beers would you expect to taste fruity esters
 - a. North German Altbier
 - b. Marzen/Oktoberfest
 - c. Best Bitter
47. What do a Straight Lambic, German Hefeweizen, and Belgian Witbier have in common?
 - a. They all have unmalted wheat in the grist.
 - b. Hops are not a big part of their flavor profile.
 - c. They all have a sour flavor profile
48. Which of these factors might give a beer astringency?
 - a. Too hot a fermentation temperature
 - b. Over sparging of the mash
 - c. Underpitching of the yeast
49. TF Permanent hardness of the water can be appropriate for some beer styles.
50. Which of these beers would you expect to find the most hop flavor?
 - a. German Pils
 - b. Dortmunder Export
 - c. Munich Helles

Practice Exam I Answers

1. F
2. F
3. T
4. C
5. B
6. A
7. B
8. A
9. T
10. F
11. B
12. A
13. C
14. T
15. B
16. T
17. A
18. C
19. F
20. F
21. B
22. B
23. T
24. F
25. A
26. F
27. F
28. C
29. F
30. F
31. T
32. A
33. A
34. B
35. T
36. F
37. F
38. F
39. T
40. A
41. C
42. C
43. F
44. F
45. C
46. B
47. B
48. B
49. T
50. A

Practice Exam 2

by John Aitchson, BJCP National Judge

1. TF To become a National Judge one needs a score of 80 on either the legacy or written proficiency exam and 25 experience points.
2. TF One can get experience points by stewarding at a competition..
3. TF Judges should refrain from using words like “If you used . . .”
4. TF Under no circumstances should judges outside the table be consulted.
5. Which of the following beers would one expect to find the most phenols
 - a. Baltic Porter
 - b. Imperial Stout
 - c. Belgian Strong Dark Ale
6. TF None of the above beers should ever be fermented with lager yeast .
7. TF Biere de Garde is known as a French, not Belgian Beer.
8. Fullers ESB is associated with this city.
 - a. London
 - b. Burton-on-Trent
 - c. Dublin
9. Name a beer style associated with the Senne Valley
 - a. Witbier
 - b. Saison
 - c. Lambic
10. Which of these is not a top fermented beer associated with Germany
 - a. Altbier
 - b. Kolsch
 - c. Dortmunder Export
11. TF Foreign Extra Stout and Schwartzbier both use roasted malts
12. TF Doppelbocks are associated with a Decoction Mash
13. Which type of bock would one expect the most hop bitterness
 - a. Hellesbock
 - b. Doppelbock
 - c. Eisbock
14. When giving a recipe for a traditional Bohemian Pilsner
 - a. A single infusion mash rest of 152 degrees is ideal
 - b. Use a multi-step infusion mash recipe including a protein rest
 - c. Employ a double or triple decoction mash with multiple steps.
15. TF The main purpose of a decoction is to add caramel character to lagers.
16. TF A traditional Belgian Dubbel uses roasted malt just for color.
17. What kind of flavor profile would one expect from a Belgian Abbey or Strong Ale yeast?
 - a. Banana like esters and clove like phenols
 - b. Fruity esters and spicy or bubble gum phenols
 - c. Clean fermentation. The other ingredients drive the flavor
18. Which of these ales would you expect to ferment at the coolest temperature
 - a. American IPA
 - b. German Hefeweizen
 - c. Saison
19. TF Alkalinity in water is caused by dissolved carbonates
20. TF When we say that malt is “fully modified” that means the acrospire is about the same length as the endosperm.
21. You would expect to find raw wheat in which beer style.
 - a. Lambic
 - b. Bavarian Hefeweizen
 - c. American Wheat Beer
22. Which of the following statements about corn and rice IS NOT true
 - a. They tend to lighten the body of the beer
 - b. They are sometimes used in Berliner Weiss beers to keep the gravity low
 - c. They need the enzymes of barley in order to convert the starches
23. TF Temperatures below 150 degrees favor beta amylase and over 155 alpha amylase

24. What is NOT one reason for a rolling 1 hour boil
 - a. To isomerizes the hops
 - b. To boil off tannins
 - c. To sterilize the wort
25. What is happening in the diastatic rest?
 - a. Proteins are converted to peptides
 - b. Starches are converted into simpler sugars
 - c. Diacetyl is converted into alcohol
26. TF German Altbiers are usually bittered with low alpha acid hops.
27. TF The scientific nomenclature for lager yeast is *Saccharomyces cerevisiae*.
28. Which of these flavors is not a by-product of fermentation
 - A. Diacetyl/Buttery
 - B. Sulphury/Skunky
 - C. Oxidized/Cardboardy
29. Esters
 - a. Are acceptable in high gravity lagers like Helesbocks and Traditional Bocks
 - b. Should be minimized in low gravity ales like English Mild and Ordinary Bitter
 - c. Greatly increase as the fermentation temperature goes up
30. TF Krausening is the practice of adding freshly fermenting beer to finished beer in order carbonate it.
31. The term “degree of modification” refers to
 - a. The ratio of the length of the barley acrospire to the endosperm
 - b. How much the starches have converted into sugars in the mash
 - c. The amount of alcohol that has been produced in the fermentation process
32. TF The American “C” hops (Cascade, Centennial, Cluster, Chinook, etc) are generally low in co-humulones.
33. TF Most fermentation takes place in the high krausen stage of the yeast life cycle
34. Which of these high gravity beers would you expect to find the most fusels in
 - a. Doppelbock
 - b. Baltic Porter
 - c. Belgian Tripel
35. TF Fusels are tasted as fruity and sometimes spicy
36. Stouts are often brewed in Ireland because
 - a. The dark and roasted malts are capable of lowering the pH in the highly carbonate water.
 - b. Hops are expensive in Ireland, the Irish brewers choose to make malt dominated beers
 - c. Irish people like dark beers—they help them get through long winters.
37. TF If a master and recognized judge at the same panel disagree on a score, the recognized judge should bring his score within 6 points of the master.
38. TF Rauchbier is a beer style most associated with the town of Einbeck
39. TF Milds are considered to be in the Brown Ale category
40. Which of these beers should not ever use bottom fermenting yeast
 - a. Baltic Porter
 - b. Scottish Export
 - c. Biere de Garde

Practice Exam 2 Answers

- | | |
|-------|--------|
| 1. F | 2. T |
| 3. F | 4. F |
| 5. C | 6. F |
| 7. T | 8. A |
| 9. C | 10. C |
| 11. T | 12. T |
| 13. T | 14. C |
| 15. F | 16. F |
| 17. B | 18. A |
| 19. T | 20. T. |
| 21. A | 22. B |
| 23. T | 24. B |
| 25. B | 26. T |
| 27. F | 28. C |
| 29. C | 30. T |
| 31. A | 32. F |
| 33. T | 34. C |
| 35. F | 36. A |
| 37. F | 38. F |
| 39. T | 40. B |