



# Brewing

## Professional

### Practical Examination

#### Trainer Version

Name: \_\_\_\_\_

Exam Date: \_\_\_\_\_

Course Trainer: \_\_\_\_\_

Email Address: \_\_\_\_\_

Postal Address: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Company: \_\_\_\_\_

SCA Membership No: \_\_\_\_\_

**PLEASE NOTE:**

Please answer all questions.

Students are allowed to work in groups.

The maximum allowable time for this examination is 165 minutes.

If the exam is given in a language that is not your first language, an extra 10 minutes is available upon request of the examiner.

Students must pass each section of the practical exam to pass, overall.

**Results**

Assessment One: ☐ Pass ☐ Fail

Assessment Two: ☐ Pass ☐ Fail

Final Assessment ☐ Pass ☐ Fail



*The practical exams at the Professional Brewing level are viewed as working exercises. The most powerful tools that a Professional Brewer possesses are their analytical minds and their ability to process a multitude of changing variables. These variables help to understand how best to interpret the information and then to offer a solution or opinion that will improve the coffee quality, service and delivery for their clients. Students will work in groups of two or three and openly discuss the tasks.*

*The examiner/assessor will observe behaviors and process as well as verify results. Students either achieve a passing grade or will need to retake the exam at a later date.*

*Candidates must pass ALL elements to pass the Professional module. The order in which Sections 1 and 2 are done is at the AST's discretion. Students only need to successfully brew and measure the calibration brew b once. Please note the scoring chart and notes:*

**SCORING SUMMARY:**

\_\_\_/30 Test 1: Produce 5 brews within target ranges (6 points per coffee)

\_\_\_/36 Test 1: Explain how they arrived at each of the brews (18 points per Part)

\_\_\_/5 Test 2: Correctly measure 2 water samples (5 points per sample)

\_\_\_/5 Brews with one water sample and predicts the flavor outcome (5 points)

\_\_\_/81 TOTAL POINTS, passing score is 65.

## Practical Test 1 – Strength and Extraction Comparison

### 66 points available (Part A & B)

The order in which Sections 1 and 2 are done is at the AST's discretion. Students only need to successfully brew and measure the calibration brew b once. Students should use worksheets to record brew parameters, then record successful brews below.

### Part A. Extraction % Comparison

- **Time available: 60 minutes**
- **Students will work in groups of two or three and openly discuss the tasks.**
- Students will create brews to 'hit' the targets listed below (suggested brewing device is AFB)
- This practical exam will test the student's ability to navigate the Coffee Brewing Control Chart by using their mastery and knowledge of all brewing parameters and their predicted effect on extraction.

Uniform strength: 1.33% +/- 0.05%

a. Brew 16% +/- 1%

b. Brew 20% +/- 1% (reference/calibration brew)

c. Brew 24% +/- 1%

Brew	Coffee (g)	Water (l)	Brew Time	%TDS	% Ext	Taste Descriptors	Complete (6 pts ea)
a.							
b.							
c.							
Learnings/ Evaluation/ Comparison							
Explain how you arrive at each brew in Part A:					Score:	Student has successfully explained how they arrived at each brew in Part A.(18 points)	

## Part B. Strength % Comparison

- **Time available: 60 minutes**
- **Students will work in groups of two or three and openly discuss the tasks.**
- Students will create brews to 'hit' the targets listed below (suggested brewing device is AFB)
- This practical exam will test the student's ability to navigate the Coffee Brewing Control Chart by using their mastery and knowledge of all brewing parameters and their predicted effect on strength.

Uniform extraction: 20% +/- 1%

- Brew 1.0% +/- 0.05%
- Brew 1.3% +/- 0.05% (reference/calibration brew)
- Brew 1.6% +/- 0.05%

Brew	Coffee (g)	Water (l)	Brew Time	%TDS	% Ext	Taste Descriptors	Complete (6 pts ea)
a.							
b.							
c.							
Learnings/ Evaluation/ Comparison							
Explain how you arrive at each brew in Part B:					Score:	Student has successfully explained how they arrived at each brew in Part B. (18 points)	

## Practical Test 2 – Water Testing

- **Time available: 45 minutes**
- **15 points available**
- **Students will work in groups of two or three and openly discuss the tasks**
- Students blindly choose two water samples from selection given
- Students must measure/test the sample to find the 'three key parameters'
- Students will also measure TDS
- Students must determine if water sample is suitable for brewing using the SCAE Water Chart Worksheet
- Students must create a brew with one of their water samples and predict the flavor profile

*AST Note: Please provide three extremely different samples: High ppm above 350, ideal range water 75-175ppm and low ppm, below 25ppm*

Sample #	Alkalinity	Total Hardness	pH	TDS	Ideal Water Standard Y/N	Total Pts (/5 per sample)
	1 pt	1 pt	1 pt	1 pt	1 pt	
1.						
2.						
Sample Chosen						
Flavor Prediction						
Actual Flavor						
Brew Sample and Flavor Prediction		Score:		Student has successfully brewed a coffee with one water sample and predicted flavor profile (5 points)		