



# Barista Skills

## Professional

### Written Examination

#### Trainer Version

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

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

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

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

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

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

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

#### PLEASE NOTE:

Please answer all questions.

This is a closed-book exam. No conferring is allowed. Pass rate is 80%

The maximum allowable time for this examination is 45 minutes.

If the exam is given in a language that is not your first language, an extra 15 minutes is available upon request of the examiner.

#### Results

Points Earned: \_\_\_\_ / 35 points = \_\_\_\_%

☐ Pass

☐ Fail

SCA Barista Professional Written Exam (Trainer); January 2018 (V 2.0)



1. Name 4 varieties of Arabica (all answers must be correct to receive the full point for this question):

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_

Only give the score if all 4 answers are Arabica.

2. How does higher altitude typically affect the flavor of the coffee produced?

- a. Coffee becomes lower in acidity and more bitter
- b. Altitude does not affect coffee flavor
- c. Coffee becomes higher in acidity and cleaner

3. Name two organic acids commonly found in coffee?

- a. \_\_\_\_\_
- b. \_\_\_\_\_

Citric, Malic, Quinic, Chlorogenic, Acetic,

4. Describe the flavor of the two organic acids described in question 3.

- Citric (citrus fruit acidity)
- Malic (apple/green grape like acidity)
- Quinic (bitter)
- Chlorogenic (bitter/astringent)
- Acetic (vinegar)

5. In the table below indicate whether a light roast coffee or a dark roast coffee is most likely to have the following characteristics, by placing a check in the appropriate box:

Characteristics:	Dark Roast:	Light Roast:
Highest acidity...		x
Highest bitterness...	x	
Most potential body...	x	

6. If your aim was to increase the body of your espresso what choices would you make with the following brewing parameters (check one column for each parameter):

Brewing Parameter	Increase:	Decrease:
Water quantity		x
Quantity of ground coffee used	x	

7. What method below is not used to decaffeinate coffee:
- Dichloromethane
  - Acetic acid
  - CO<sub>2</sub>
  - Swiss water process
8. If you store coffee at 4°C/39°F rather than at 25°C/77°F would it degas (give off carbon dioxide)
- Slower
  - Faster
  - Remain the same
9. When assessing an espresso work station for efficiency in what order would you layout your key equipment and why?

Develop clear “work zones” where all the equipment required for a job is logically grouped together e.g. grinder, machine and milk fridge. Minimize the need to twist or bend to carry out a task. Make sure adequate space is left behind the counter for staff to pass each other. Ensure there is adequate storage to prevent corridors and pathways getting blocked. Ensure adequate access to utilities such as bins and sinks. Ensure the layout assists “queue calling”, where a number of customers orders can be taken to maximize the efficiency of the barista making the drinks.

10. When using “grind on demand” grinders what is NOT considered a benefit from the following?
- Minimized oxidization
  - Increased waste
  - Decreased waste
  - Distribution
11. When making a grind adjustment on a “grind on demand” grinder what will also need to be adjusted?
- No other adjustments will be needed
  - The brew recipe will adjust
  - The amount of time the grinder is on will need to change for the correct dose
  - No purge is necessary in between adjustments

12. If a 14 grams dose was achieving a 18% extraction percentage, what effect would increasing the dose to 18 grams have on the extraction percentage (if all other parameters, such as shot time and water quantity stayed the same):
- a. The extraction percentage would increase
  - b. The extraction percentage would decrease
  - c. The extraction percentage would stay the same
13. How does the density of a dark roast coffee bean differ from a light roast coffee bean?
- a. It would be denser
  - b. It would be less dense
  - c. It would be the same
14. How does the grind setting of a dark roast coffee bean differ from a light roast coffee bean?
- a. Dark Roast will need finer grind than Light Roast to maintain the same shot time
  - b. Dark Roast will have the same grind as Light Roast to maintain the same shot time
  - c. Dark Roast will need a coarser grind than Light Roast to maintain the same shot time
15. Increasing water temperature used to make espresso would (given all other factors being kept equal:)
- a. Increase extraction
  - b. Decrease extraction
  - c. Not affect extraction
16. Which of the following would cause potential channeling and need correction in another barista's dosing technique?
- a. Dosing a mound in the center of the portafilter and settling (up and down tap)
  - b. Dosing a mound in the center and redistributing the grounds with the hand
  - c. Dosing a mound in the center and tamping
  - d. Dosing a mound in the center, tamping and then tapping the rim of the portafilter with the tamper and tamping again
17. Describe the pressure profile that a traditional "lever" espresso machine would usually give. Draw a graph of pressure over the shot time to identify this:
- As the lever is pulled down and held then pre-infusion can occur at low pressure. As the handle is released very high pressure is experienced, steadily decreasing throughout the shot as the espresso is made (i.e. a steady curve from high to low pressure)

18. Of the following, what represents extraction % of an espresso?

- a. The strength percentage of the espresso
- b. The percentage of bean mass that is dissolved
- c. The dilution percentage of espresso

19. What does TDS mean?

#### Total Dissolved Solids

20. The suggested range of extraction percentage is 18-22%, typically, what are some flavor components that happen above or below this range.

Above 22%:

Below 18%:

This is the quantity of acidic, sweet and bitter compounds extracted from the coffee that it said gives a desired balanced flavor (highlighted in research from Lockhart, Coffee Brewing Centre) Under 18% and the acidic flavors would be dominant and over 22% the bitter flavors would be dominant.

21. We commonly use milk that has been through pasteurization. What time and temperature is commonly used in this process:

- a. 50°C/122°F - 60 seconds
- b. 138°C/280°F - 2 seconds
- c. 72°C/161.6°F - 15-20 seconds

22. The breakdown of the fats in milk, into free fatty acids and triglyceride, is known as:

- a. Lipolysis
- b. Proteolysis
- c. Hydrolysis

23. Excessively heating your milk can lead to “denatured proteins”. What effect would excessive heat have on the flavor and smell of your milk?

- a. The smell and flavor will be at its sweetest and most creamy
- b. The smell and flavor will have an egg like smell and cooked flavor
- c. The smell and flavor does not change when steamed cool to hot

24. State one common name of an espresso and milk beverage served in a fully-filled 120ml/4oz vessel?

#### Cortado, Gibraltar, Piccalo, Cortadito

25. When steaming, soy milk performs differently to whole cow's milk in which of the following ways?

- a. Soy milk will take longer to steam and have more consistent foam texture than whole milk
- b. Soy milk will steam and have similar qualities in steaming and consistency as skimmed milk
- c. Soy milk has similar fat content as whole milk and will give similar texture foam

26. Which of the following would cause potential inconsistency and need correction in another baristas' milk steaming technique?

- a. Loud screeching noises
- b. Very thin foam with latte art
- c. Thick foam with large bubble
- d. **All of the above**

27. What is the difference between on-selling and up-selling?

**On-selling is selling your customers an accompanying product with their purchase and up-selling is selling a better or larger version of a product the customer is purchasing.**

28. Why is it important to make written records of the cleaning that takes place in your café.  
Give two reasons:

- a.
- b.

**As a quick way of assessing that the cleaning has taken place/As a list for staff to follow/  
As a record of cleaning carried out in case of complaints/ As evidence in external inspection**

29. What would be the consequences on drink quality in using grinder burrs/blades that were badly worn?

**Inconsistent brewing and bitter taste due to excess of fines that reduce uniformity of extraction leading easily to over-extraction of the fines.**

30. What would be the effects of using 300ppm Total Hardness water for brewing, rather than 50ppm Total Hardness water :

- a. Extraction would be... **HIGHER** / LOWER (Circle the correct answer)
- b. Scale build up in the boilers... **HIGHER** / LOWER (Circle the correct answer)

31. State a chemical likely to introduce a taint to the water used for your coffee:

**Chlorine/Sodium/Fluoride**

32. What are clear signs that the group head gasket/seal needs to be changed?

The portafilter inserts further than usual. A leakage of liquid around the portafilter when brewing.

33. Which does NOT best represent minimizing waste when producing espresso based beverages?

- a. Maintain consistent dosing techniques and grinding fresh
- b. Clear stock rotation and storage condition systems
- c. Overfilling milk pitchers to ensure improved latte art

34. What is meant by the “break even point” in your café’s turnover and how would you calculate it?

The “break even point” is the revenue you need to take in to survive. It is the amount of revenue required in order to pay your costs. To work it out you need to calculate the revenue needed where the gross profit from that revenue covers your fixed costs (remember to take of any tax due)

35. When adjusting pump pressure what procedures must be taken?

- a. While adjusting using blind portafilter with the pump on
- b. While adjusting using a portafilter with a dose and tamped puck with the pump on
- c. While adjusting not having a portafilter in the group with the pump on
- d. While adjusting only moving the gauge up or down with the pump off

**END OF EXAM**