Whisky Production Master Quiz

Team Name: _____ **Table No:** _____ **Score:** ____ / 12

Q1. Why is two-row spring barley the grain of choice for Scottish malt distilling over other cereals?

[ ] A) It contains more gluten than wheat, creating a thick mash bed.

[ ] B) It has a high starch-to-protein ratio and generates enough natural diastatic enzymes during malting to convert its own starches into fermentable sugars.

[ ] C) It ferments spontaneously without requiring added yeast.

[ ] D) It imparts high levels of natural smoke flavour without burning peat.

Q2. During the steeping stage of malting, what target moisture content must the barley grain reach to initiate germination?

[ ] A) Around 12% to 14%

[ ] B) Around 20% to 25%

[ ] C) Around 42% to 45%

[ ] D) Over 85%

Q3. What is the classic grist ratio produced by a four-roller Porteus or Boby mill for a traditional mash tun?

[ ] A) 50% husk, 30% grits, 20% flour

[ ] B) 20% husk, 70% grits (middlings), 10% flour

[ ] C) 10% husk, 40% grits, 50% flour

[ ] D) 33% husk, 33% grits, 34% flour

Q4. At about what temperature is the first mashing water typically mixed with the grist, and why?

[ ] A) Around 45°C to preserve yeast viability

[ ] B) Around 62°C to 65°C, which suits the malt's amylase enzymes once the barley starch has gelatinised

[ ] C) Around 85°C to extract tannins from the husks

[ ] D) At boiling point (100°C) to sterilise the mash

Q5. How does a prolonged fermentation (70 to 100+ hours) alter the flavour profile of the resulting wash compared to a short 48-hour fermentation?

[ ] A) It eliminates all alcohol, producing vinegar.

[ ] B) After yeast exhausts sugars, surviving lactic acid bacteria drop the pH and synthesize complex, light, fruity and floral esters.

[ ] C) It creates heavy sulfur and burnt rubber off-notes.

[ ] D) It doubles the alcoholic strength of the wash to over 20% ABV.

Q6. How does the angle of the lyne arm (the pipe connecting the still neck to the condenser) influence the character of the spirit?

[ ] A) An upward-sloping lyne arm increases internal reflux, producing a lighter spirit; a downward slope carries heavy compounds over into a meatier spirit.

[ ] B) An upward-sloping arm cools the spirit faster, increasing ABV.

[ ] C) A downward-sloping arm strips all peat smoke from the vapor.

[ ] D) The lyne arm angle has no physical effect on spirit character.

Q7. Why is copper universally used in the construction of Scotch pot stills?

[ ] A) Copper is the only metal that can withstand an open flame.

[ ] B) Copper chemically reacts with foul-smelling volatile sulfur compounds (mercaptans and dimethyl trisulfide) to precipitate them out, purifying the spirit.

[ ] C) Copper adds caramel color directly to the distillate.

[ ] D) Copper is legally required to make the still magnetised.

Q8. In a continuous Coffey column still, what are the names of the two main functional columns?

[ ] A) The boiler and the extractor

[ ] B) The analyser (stripping column) and the rectifier (fractionating column)

[ ] C) The compressor and the purifier

[ ] D) The mash column and the charcoal chamber

Q9. What primary oak component breaks down during barrel toasting and charring to yield vanillin?

[ ] A) Cellulose

[ ] B) Lignin

[ ] C) Tannins

[ ] D) Hemicellulose

Q10. What is the standard filling strength (ABV) at which most Scottish distilleries cask their new-make spirit into oak?

[ ] A) 40.0% ABV

[ ] B) Around 63.5% ABV

[ ] C) 75.0% ABV

[ ] D) Undiluted still strength (around 70% to 72% ABV)

Q11. What are the two major liquid and solid co-products left behind after mashing and first pot distillation?

[ ] A) Draff (spent grains) from the mash tun, and Pot Ale (spent wash) from the wash still

[ ] B) Spent lees and green malt

[ ] C) Activated charcoal and fusel oil

[ ] D) Barley husks and sour mash liquid

Q12. How does shell-and-tube condensing differ from traditional serpentine worm tub condensing in its impact on spirit character?

[ ] A) Worm tubs provide vastly more copper contact, resulting in a lighter spirit.

[ ] B) Shell-and-tube condensers provide high copper contact, creating a cleaner, lighter spirit; cold worm tubs restrict copper interaction, leaving heavier, sulfurous, meaty notes.

[ ] C) Shell-and-tube condensers require no cooling water.

[ ] D) Worm tubs are only used for continuous grain distillation.