

CRIME BUSTERS PRACTICE TEST

Hello! Welcome to my Crime Busters test. Hope it helps!

I wrote this test with the state level in mind (rules wise), but it might deviate a little bit. This is the test packet which contains the questions and space for answers. The answer key has the answers and the additional information doc has more necessary information.

If you have any questions or comments, need any clarifications or find any errors, you can either message me or fill out this [form](#). There might be updates there too. Thanks!

TEST QUESTIONS INDEX		
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78-89	Fingerprints	___/20
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NOTE: Alyssia is NOT the culprit, but when a question asks which suspect is implicated, Alyssia can be the answer!!

QUESTIONS			
#	Question	Answer	Pts
1	What is the name of P1 (powder #1)?		___/1
2	What is the chemical formula of P1?		___/1
3	Does P1 implicate anybody? If so, which suspect(s)? (no explanation needed)		___/1
4	What is the name of P2?		___/1
5	What is the chemical formula of P2?		___/1
6	Does P2 implicate anybody? If so, which suspect(s)? (no explanation needed)		___/1
7	What is the name of P3?		___/1

8	What is the chemical formula of P3?		__/1
9	Does P3 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
10	What is the name of P4?		__/1
11	What is the chemical formula of P4?		__/1
12	Does P4 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
13	What is the name of P5?		__/1
14	What is the chemical formula of P5?		__/1
15	Does P5 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
16	What is the name of P6?		__/1
17	What is the chemical formula of P6?		__/1
18	Does P6 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
19	What is the name of P7?		__/1
20	What is the chemical formula of P7?		__/1
21	Does P7 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
22	What is the name of P8?		__/1
23	What is the chemical formula of P8?		__/1
24	Does P8 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
25	What are the names of the components of P9?		__/2

26	What are the chemical formulae of the components of P9?		__/2
27	Does P9 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
28	What are the names of the components of P10?		__/2
29	What are the chemical formulae of the components of P10?		__/2
30	Does P10 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
31	Write the equation of the reaction between baking soda and vinegar (include states of matter).		__/2
32	What is the KI test indicative of in powders? What compound forms if this test is positive?		__/2
33	What type of attractive forces helps salts such as NaCl dissolve in water?		__/1
34	Dissolving sodium acetate is an _____ process, meaning heat is _____.		__/2
35	Write the equation of the reaction between calcium carbonate and hydrochloric acid (include states of matter).		__/2
36	Vitamin C is also called _____ acid.		__/1
37	_____ is the species of yeast used to make bread.		__/1
38	Draw the structure of common sugar (sucrose).		__/2
39	What are the three active ingredients of Alka-Seltzer?		__/2
40	Substances like flour are carbohydrates, meaning they contain which elements?		__/1

41	Draw the Lewis Dot structure of sodium acetate.		__/1
42	What is the name of L1 (liquid #1)?		__/1
43	Does L1 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
44	What is the name of L2?		__/1
45	Does L2 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
46	What is the name of L3?		__/1
47	Does L3 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
48	Lemon juice contains what acid? What is this acid's chemical formula?		__/2
49	Why does rubbing alcohol evaporate much faster than water does? Draw the Lewis Dot structure of both.		__/3
50	The pH test measures the concentration of what ion?		__/1
51	Draw the Lewis Dot structure of acetic acid.		__/2
52	What is the name of M1 (metal #1)?		__/1

53	Does M1 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
54	What is the name of M2?		__/1
55	Does M2 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
56	What is the name of M3?		__/1
57	Does M3 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
58	Which Crime Busters metal is the most dense? What is its density?		__/2
59	Which Crime Busters metal is the least dense? What is its density?		__/2
60	Write the chemical equation for the formation of rust on iron (states of matter are not necessary).		__/2
61	In the reaction between magnesium and hydrochloric acid, which reactant is the reducing agent and which is the oxidising agent?		__/2
62	What type of fiber is F1 (fiber #1)?		__/1
63	Does F1 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
64	What type of fiber is F2?		__/1
65	Does F2 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
66	What type of fiber is F3?		__/1
67	Does F3 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
68	Synthetic fibers are created through a process called _____.		__/1

69	What chemical is used in mercerisation? What type of fibers are mercerised?		__/2
70	What type of hair is H1 (hair #1)?		__/1
71	Does H1 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
72	What type of hair is H2?		__/1
73	Does H2 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
74	What type of hair is H3?		__/1
75	Does H3 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
76	What are the three stages of hair growth?		__/2
77	The _____ of the hair contains the richest source of DNA associated with hair.		__/1
78	What type of fingerprint is FP1 (fingerprint #1)?		__/1
79	Which suspect does FP1 implicate?		__/1
80	What type of fingerprint is FP2?		__/1
81	Which suspect does FP2 implicate?		__/1
82	What type of fingerprint is FP3?		__/1
83	Which suspect does FP3 implicate?		__/1
84	What are major features of fingerprints called?		__/1
85	Describe the process of iodine fuming. (1-2 sentences but be detailed)		__/3

86	Describe the process of fingerprint detection with ninhydrin. (1-2 sentences but be detailed)		__/3
87	Describe the process of cyanoacrylate fuming. (1-2 sentences but be detailed)		__/3
88	What is the difference between latent, plastic and patent prints? Name one example of each type.		__/3
89	What is the system of classifying fingerprints based physiological characteristics called?		__/1
90	Which suspect(s) does C1 (the chromatography test) implicate?		__/2
91	What is the mobile phase in this chromatography test?		__/1
92	What is the stationary phase in this chromatography test?		__/1
93	Which ink color is more polar based on this chromatography test?		__/1
94	What does Rf stand for in terms of chromatography?		__/1
95	What type of plastic is PL1 (plastic #1)? (full name)		__/1
96	Draw the recycling label of PL1.		__/1

97	Draw the structure of PL1.		__/1
98	Does PL1 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
99	What type of plastic is PL2? (full name)		__/1
100	Draw the recycling label of PL2.		__/1
101	Draw the structure of PL2.		__/1
102	Does PL2 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
103	What type of plastic is PL3? (full name)		__/1
104	Draw the recycling label of PL3.		__/1
105	Draw the structure of PL3.		__/1
106	Does PL3 implicate anybody? If so, which suspect(s)? (no explanation needed)		__/1
107	The Beilstein Test is used to detect the presence of _____ in organic compounds. It is used to identify the plastic _____.		__/2

108	Name 2 types of plastic formed by the addition polymerisation process.		__/1
109	Name 2 types of plastic formed by the condensation polymerisation process.		__/1
110	Which suspect(s) blood type matches that of B1 (the blood sample)?		__/1
111	Which blood type is the universal acceptor?		__/1
112	Which blood-type-determining gene is recessive?		__/1
113	Describe the process of blood detection with Luminol. (1-2 sentences but be specific)		__/3
114	What are the names of the four stages of impact for a blood spatter? Draw a side view of each stage.		__/4
115	What does the probative value measure?		__/1
116	In gel electrophoresis, macromolecules are separated based on _____ and _____.		__/1
117	What are the five manners of death?		__/2
118	What is circumstantial evidence?		__/1
119	Who is the father of forensic toxicology?		__/1

