1) Problem statements should always ____?
   a) answer your question 5
   b) be in the form of a question 67
   c) discuss possible solutions 21
   d) consider the data from an experiment 15

2) Hypothesis may arise from?
   a) prior knowledge 7
   b) logical inferences 5
   c) informed, creative possible solutions 10
   d) all the above 85

3) What is the correct order of the steps in the scientific method?
   a) problem, hypothesis, experiment, data analysis, conclusion 90
   b) hypothesis, problem, experiment, data analysis, conclusion 11
   c) problem, hypothesis, variable analysis, data analysis 1
   d) problem, hypothesis, experiment, conclusion, data analysis 5

4) An experiment that tests only one factor at a time by using a comparison of a control group and an experimental group is?
   a) controlled experiment 77
   b) laboratory analysis 11
   c) library research
   d) all of these make sense 19
5) Which of the following hypotheses is written correctly?
   a) If I heat up a tennis ball it will bounce high.  
   b) Frozen tennis balls will not bounce as high.  
   ✔ c) If I freeze a tennis ball, then it will not bounce as high.  
   d) If a tennis ball is frozen, it won’t bounce as high as one that is not frozen.  

   92 ✔ Correct  16 ✗ Incorrect  1 ✗ Not answered  1 point

6) The process of obtaining information by using the senses is called a/an
   ✔ a) observation  
   b) measurement  
   c) inquiry  
   d) lucky guessing  

   97 ✔ Correct  11 ✗ Incorrect  1 point

7) A series of steps designed to help you solve problems and answer questions in a logical
   fashion is?
   a) Method Online Schools  
   b) observation method  
   c) Cohen Method  
   ✔ d) scientific method  

   50 ✔ Correct  58 ✗ Incorrect  1 point

8) In an experiment, the factor that we measure is called the
   a) independent variable  
   ✗ b) dependent variable  
   ✔ c) controlled variable  
   d) tax deduction variable  

   89 ✔ Correct  19 ✗ Incorrect  1 point

9) A scientist hypothesizes the the temperature at which an alligator's egg is incubated will
determine whether the alligator will be male or female. The independent variable is
   a) the male alligators  

https://www.easytestmaker.com/Test/OnlineResultsReport/57ac4cf-c-a26c-4eed-ad55-abed4076594d
10) A scientist hypothesizes that the temperature at which an alligator's egg is incubated will determine whether the alligator will be male or female. The dependent variable is:
   a) the size of the baby alligators
   b) the gender of the baby alligators
   c) the temperature
   d) the incubator

11) In science, an educated guess is called a/an
   a) observation
   b) hypothesis
   c) question
   d) conclusion

12) When you decide whether or not the data supports the original hypothesis, you are?
   a) drawing conclusions
   b) making observations
   c) forming a hypothesis
   d) communicating results

13) This graph shows...?
14) In which section should the picture of your prototype model (your solution) go in a formal lab report.
   a) conclusion 17
   ☑️ b) Data 84
   ☐ c) Problem 5
   ☐ d) not necessary 2

15) When a scientist shares her findings with other scientists, she is
   ☑️ a) communicating results 95
   ☐ b) making a hypothesis 3
   ☐ c) analyzing the problem 2
   ☐ d) calculating data 7

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Credit: NOAA/Scripps Institution of Oceanography

- ☑️ a) a positive correlation between CO2 and years 87
- ☐ b) a positive correlation between CO2 and rainfall 9
- ☐ c) a negative correlation between CO2 and years 11
- ☐ d) a negative correlation between CO2 and the Federal government 1

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https://www.easytestmaker.com/Test/OnlineResultsReport/57ac4cfc-a26c-4eed-ad55-abed4076594d
16) Why is it important to conduct scientific tests more than one time?
   a) to be able to repeat the results
   b) to increase the reliability of the data (results)
   c) to make correlation conclusions
   d) All the above

17) Which of the following is NOT an observation
   a) spiders are poisonous
   b) spiders have 8 legs
   c) This spider has a black and yellow pattern on its abdomen
   d) Spiders have 4 legs on each side of their body

18) Which of the following conclusions can be made from the graph?
   a) There is a positive correlation between the data (red and blue)
   b) There is a negative correlation between the data (red and blue)
   c) The blue line data causes the red data
   d) The red line data causes the blue line data
19) Why is it important to get individual observations and research information before groups get together to share?

- a) to avoid "group think" which can make you miss details [78]
- b) to keep your partner from cheating
- c) to make sure everyone is doing their job. [5]
- d) none of these is correct. [25]

20) Two ways of gathering data are

- a) observation and measurement [77]
- b) observation and hypothesis [22]
- c) measurement and hypothesis [6]
- d) measurement and calculus [3]