Please clearly mark the right answer for each of the following multiple choice questions (only one single answer per question allowed)!

Use the following table to answer the **first two questions**:

TABLE
Family Size and Ownership of a VCR by Household
(Figures in millions of households)

Family Size	OWN A VCR		TOTAL
	Yes	**No**	
Less than 4	10	38	48
4 or more	24	28	52
TOTAL	**34**	**66**	**100**

1. **The most appropriate way to calculate percentages in the above table to reflect cause and effect is:**
    a) by dividing each of the entries by 100.
    b) by dividing 48 and 52 by 100.
    c) by dividing 34 and 66 by 100.
    d) by dividing entries in the first row by 48 and those in the second row by 52.
    e) by dividing entries in the first column by 34 and those in the second column by 66.

2. **What relationship can be inferred from the above table between family size and owning a VCR?**
    a) Nothing can be inferred.
    b) The smaller the family the more likely they are to own a VCR.
    c) A lower proportion of large families (4 or more) own VCR's than small families.
    d) Owning a VCR causes the family size to increase.
    e) Ownership of a VCR tends to increase as family size increases.

3. **The process of editing the data involves:**
    a) detecting and correcting interviewer errors.
    b) discovering inconsistencies between responses.
    c) identifying omissions, ambiguities, and errors in responses.
    d) eliminating data from ineligible respondents.
    e) all of the above.

4. **ABC Incorporated wants to find out the proportion of customers who would purchase their new product. They have decided to take a modest sample, look at the results, and then decide if more information, in the form of a larger sample, is needed. ABC is using:**
    a) simple random sampling.
    b) biased random sampling.
    c) stratified sampling.
    d) sequential sampling.
    e) none of the above.

5. **Consider the following four statements:**

1.) **The distribution of the mean of a random sample approaches the normal distribution as the sample size increases, only if the parent population is <u>normally distributed.</u>**

2.) **The distribution of the mean of a random sample taken from a <u>normal</u> population is normal, irrespective of the sample size.**

3.) **The distribution of the mean of a random sample taken from <u>practically any population</u> approaches the normal distribution as the sample size increases.**

4.) **The distribution of the mean of a random sample taken from <u>practically any population</u> is normal, irrespective of the sample size.**

Which of the above statements are true?
   a) only 1.
   b) 2 and 3.
   c) 2 and 4.
   d) only 3.
   e) none of the above.

6. **An important philosophical point underlying statistical hypothesis testing is that a null hypothesis may be _____ but can never be _____ .**
   a) accepted; rejected.
   b) incorrectly stated; rejected.
   c) rejected; accepted.
   d) unacceptable; rejected.
   e) rejected; unacceptable.

7. **Which of the following results in a nonprobability sample?**
   a) Stratified sampling.
   b) Quota sampling.
   c) Systematic sampling.
   d) Cluster sampling.
   e) Multi-stage sampling.

8. **A researcher who rejects a null hypothesis when in fact it is true _____ .**
   a) is commiting a Type I error.
   b) is commiting a Type II error.
   c) is typically sure that he has made an incorrect decision.
   d) typically lacks confidence that he has made a correct decision.
   e) none of the above.

9. **Spurious noncorrelation is said to occur when _____ .**
   a) There is no true relationship between X and Y and the researcher concludes there is.
   b) The researcher concludes there is no relationship between X and Y and in fact there is.
   c) There is a true relationship between X and Y and the researcher concludes this is so.
   d) There is no true relationship between X and Y and the researcher concludes this is so.
   e) None of the above.

10. **When a researcher is concerned with the relationship of a set of variables among themselves he is concerned with the analysis of _____ .**
   a) dependence.
   b) interdependence.
   c) independence.
   d) predictor variables.
   e) consequent variables.
   f) none of the above.