**PSY 250 Sample ?s for Exam 2**

**Multiple Choice**

*Identify the letter of the choice that best completes the statement or answers the question.*

\_\_\_\_ 1. A design in which different participants are randomly assigned to the various treatment conditions in an experiment is a \_\_\_\_ design.

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| --- | --- |
| a. | single-subjects |
| b. | between-subjects |
| c. | within-subject |
| d. | matched groups |

\_\_\_\_ 2. In a *between-subjects design*

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| --- | --- |
| a. | each participant receives one level of the independent variable. |
| b. | all participants receive every level of the independent variable. |
| c. | each participant is investigated in great detail with multiple measures. |
| d. | behavioral observation is used. |

\_\_\_\_ 3. A random sample of sixty participants is obtained for an experiment. Half of the participants are assigned to treatment #1 and the other half are assigned to treatment #2. This experiment is an example of a \_\_\_\_ design.

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| --- | --- |
| a. | between-subjects |
| b. | within-subjects |
| c. | combined |
| d. | mixed |

\_\_\_\_ 4. In a between-subjects design, individual differences (participant variables) are a problem because

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| --- | --- |
| a. | they can become confounding variables. |
| b. | they can increase variability of the scores. |
| c. | they can become confounding variables and they can increase variability of the scores. |
| d. | they can produce fatigue effects. |

\_\_\_\_ 5. In a between-subjects design the separate groups must be

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| --- | --- |
| a. | as similar in participant characteristics as possible. |
| b. | as different in all environmental variables as possible, except for the treatment conditions. |
| c. | as similar in treatment conditions as possible. |
| d. | as similar on the dependent variable measures as possible. |

\_\_\_\_ 6. In an experiment, participants are usually assigned to treatments using random assignment. The reason for using random assignment is

|  |  |
| --- | --- |
| a. | to allow the experimenter to manipulate participant variables. |
| b. | it is an attempt to control participant variables so they don't become confounding variables. |
| c. | it gives the experimenter an opportunity to measure participant variables that might influence the outcome of the experiment. |
| d. | it is a required component of all experiments. |

\_\_\_\_ 7. Holding a variable constant prevents a variable from becoming a confound by

|  |  |
| --- | --- |
| a. | eliminating or restricting the range of the variable. |
| b. | reducing error. |
| c. | ensuring a nonbiased sample. |
| d. | increasing the differences between the groups. |

\_\_\_\_ 8. Which of the following procedures can be used to minimize assignment bias as a threat to the internal validity of a between-subjects design?

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| --- | --- |
| a. | random assignment |
| b. | matched assignment |
| c. | holding variables constant |
| d. | the other three choices are all procedures that can be used |

\_\_\_\_ 9. When comparing means in a single-factor multiple group design which statistical analysis is most appropriate?

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| a. | independent-measures *t* test |
| b. | dependent-measures *t* test |
| c. | single-factor analysis of variance |
| d. | chi-square test for independence |

\_\_\_\_ 10. In a within-subjects research study, each participant is measured

|  |  |
| --- | --- |
| a. | once. |
| b. | once in each treatment condition. |
| c. | twice in each treatment condition. |
| d. | n! (n factorial) times, where n is the number of treatment conditions. |

\_\_\_\_ 11. A within-subjects design is also know as a(n)

|  |  |
| --- | --- |
| a. | independent-measures design. |
| b. | repeated-measures design. |
| c. | equivalent groups design. |
| d. | matched groups design. |

\_\_\_\_ 12. For an experiment that compares two treatment conditions with ten scores in each treatment, which design would require fewer subjects?

|  |  |
| --- | --- |
| a. | between subjects |
| b. | within subjects |
| c. | matched subjects |
| d. | all would require the same number of subjects |

\_\_\_\_ 13. The advantage of removing individual differences in a within-subjects design is

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| --- | --- |
| a. | it removes one source of potential confounding variables. |
| b. | it reduces variability. |
| c. | it can reveal treatment effects that might not be apparent otherwise. |
| d. | the other three choices are all advantages. |

\_\_\_\_ 14. An advantage of the between-subjects design versus the within-subjects design is that between-subjects \_\_\_\_.

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| --- | --- |
| a. | generally requires fewer participants |
| b. | usually is a more sensitive test (more likely to detect a treatment effect) |
| c. | eliminates the risk of order effects |
| d. | eliminates potential problems that may be caused by individual differences |

\_\_\_\_ 15. Compared to a between-subjects design, the variance in a within-subjects design is greatly reduced because the \_\_\_\_ are measured and statistically removed.

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| --- | --- |
| a. | individual differences |
| b. | carry over effects |
| c. | progressive error effects |
| d. | instrumentation effects |

\_\_\_\_ 16. Which of the following is not a time-related threat to internal validity for a within-subjects experiment?

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| --- | --- |
| a. | history |
| b. | instrumentation |
| c. | maturation |
| d. | assignment bias |

\_\_\_\_ 17. When one treatment condition has a lasting effect on individuals that influences their scores in future treatments, the study is confounded by \_\_\_\_.

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| --- | --- |
| a. | history effects |
| b. | instrumentation |
| c. | carryover effects |
| d. | progressive error |

\_\_\_\_ 18. For a within-subjects experiment, one of the primary threats to internal validity is

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| --- | --- |
| a. | individual differences that may exist within treatment conditions. |
| b. | individual differences that may exist between treatment conditions. |
| c. | the risk that one treatment condition may influence scores in other treatment conditions. |
| d. | the risk that one (or more) of the treatment conditions will have no influence on the participants' scores. |

\_\_\_\_ 19. The purpose for counterbalancing is

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| --- | --- |
| a. | to prevent subject variables from becoming confounding variables. |
| b. | to prevent subject variables from adding to the error variance. |
| c. | to prevent order effects from becoming a confounding variable. |
| d. | to prevent order effects from adding to the error variance. |

\_\_\_\_ 20. A Latin square is used with

|  |  |
| --- | --- |
| a. | partial counterbalancing. |
| b. | complete counterbalancing. |
| c. | matched-subjects designs. |
| d. | all within-subjects designs. |

\_\_\_\_ 65. Experiments allow researchers to

|  |  |
| --- | --- |
| a. | eliminate experimenter bias. |
| b. | answer questions about the existence of a relationship between two variables. |
| c. | observe naturally occurring behavior. |
| d. | answer cause-and-effect questions about the relationship between two variables. |

\_\_\_\_ 66. The \_\_\_\_ strategy is being used when a researcher attempts to address questions about cause-and-effect relationships between two variables, however, the study contains a flaw prohibiting an unambiguous answer.

|  |  |
| --- | --- |
| a. | nonexperimental |
| b. | correlational |
| c. | experimental |
| d. | quasi-experimental |

\_\_\_\_ 67. A research study that finds that alcohol use is strongly related to income level used the \_\_\_\_ strategy.

|  |  |
| --- | --- |
| a. | descriptive |
| b. | correlational |
| c. | experimental |
| d. | quasi-experimental |

\_\_\_\_ 68. The \_\_\_\_ strategy is an approach to research whereby two variables are measured and the relationship between them is examined.

|  |  |
| --- | --- |
| a. | descriptive |
| b. | correlational |
| c. | experimental |
| d. | quasi-experimental |

\_\_\_\_ 69. A study addressing how many cigarettes a week are smoked by adolescents at a high school is an example of what research approach?

|  |  |
| --- | --- |
| a. | experimental |
| b. | quasi-experimental |
| c. | correlational |
| d. | descriptive |

\_\_\_\_ 70. Any factor that raises doubts about the research results is a

|  |  |
| --- | --- |
| a. | threat to reliability. |
| b. | threat to validity. |
| c. | experimenter expectancy. |
| d. | demand characteristic. |

\_\_\_\_ 71. A research study has \_\_\_\_ if it produces a single, unambiguous explanation for the results.

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| --- | --- |
| a. | internal validity |
| b. | external validity |
| c. | reliability |
| d. | accuracy |

\_\_\_\_ 72. Any factor that allows for an alternative explanation for the results of a study is a threat to

|  |  |
| --- | --- |
| a. | internal validity. |
| b. | external validity. |
| c. | reliability. |
| d. | accuracy. |

\_\_\_\_ 73. The degree to which your research results extend beyond your study refers to

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| --- | --- |
| a. | internal validity. |
| b. | external validity. |
| c. | general validity. |
| d. | reliability. |

\_\_\_\_ 74. If a researcher finds that room color influences mood of the adults in a sample, then the researcher would like to conclude that room color affects mood of

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| --- | --- |
| a. | children. |
| b. | people. |
| c. | adults in general. |
| d. | adolescents in general. |

\_\_\_\_ 75. If a researcher measures self-esteem with the Rosenberg Self-Esteem Scale, will another researcher get the same results measuring self-esteem with the Harter Self-Esteem Measure-This is a question of

|  |  |
| --- | --- |
| a. | external validity. |
| b. | internal validity. |
| c. | reliability. |
| d. | accuracy. |

\_\_\_\_ 76. To avoid \_\_\_\_ and ensure \_\_\_\_ of a research study, it is necessary that there are no systematic differences in the general environment from one treatment condition to the next.

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| --- | --- |
| a. | extraneous variables; internal validity |
| b. | extraneous variables; external validity |
| c. | confounding variables; external validity |
| d. | confounding variables; internal validity |

\_\_\_\_ 77. A researcher is conducting a study with a group of individuals that extends over a 5-day period and uses college students as participants. If there is a suicide at the college during the study that causes widespread depression among the students, then the internal validity of the study is threatened by

|  |  |
| --- | --- |
| a. | history. |
| b. | instrumentation. |
| c. | maturation. |
| d. | regression toward the mean. |

\_\_\_\_ 78. In a study with a group of individuals being tested in a series of treatment conditions that extends over a relatively long time, it is possible that there will be systematic changes in the participants' physiology or psychology that occur during the time of the study. If these changes influence the participants' scores, causing scores at the end of the study to be different from scores at the beginning, the effect is called

|  |  |
| --- | --- |
| a. | history. |
| b. | instrumentation. |
| c. | maturation. |
| d. | regression toward the mean. |

\_\_\_\_ 79. \_\_\_\_ is a testing experience that causes progressive improvement in performance over time and provides an alternative explanation for the results.

|  |  |
| --- | --- |
| a. | Selection bias |
| b. | Volunteerism |
| c. | Fatigue |
| d. | Practice |

\_\_\_\_ 80. The problem with using volunteers in research is that

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| --- | --- |
| a. | volunteers may be more reactive to the procedures of the study. |
| b. | volunteers are not perfectly representative of the general population. |
| c. | there may be differences between two species. |
| d. | there may be history effect. |

\_\_\_\_ 81. External validity is threatened by

|  |  |
| --- | --- |
| a. | reactivity. |
| b. | demand characteristics. |
| c. | novelty. |
| d. | the other three choices are all threats to external validity. |

\_\_\_\_ 82. Experimenter bias can threaten external validity because the results obtained in a study

|  |  |
| --- | --- |
| a. | may be specific to an experimenter with a certain set of characteristics. |
| b. | may be specific to the experimenter who has the expectations. |
| c. | may be specific to the cues about how to behave. |
| d. | may be specific to the knowledge of being measured. |

\_\_\_\_ 83. A descriptive research study tends to have \_\_\_\_ internal validity and \_\_\_\_ external validity.

|  |  |
| --- | --- |
| a. | high; low |
| b. | low; high |
| c. | high; high |
| d. | low; low |

\_\_\_\_ 84. Experiments allow researchers to

|  |  |
| --- | --- |
| a. | observe naturally occurring behaviors. |
| b. | demonstrate cause-and-effect-relationships. |
| c. | increase the external validity of their research studies. |
| d. | all of the other choices are characteristics of experiments. |

**Dr. Adams' Study**

Dr. Adams is interested in studying how type of food consumed can influence people's reaction times. A sample of 100 people is selected. Fifty people are assigned to the carbohydrate condition where Dr. Adams provides a carbohydrate meal for participants to consume. The other 50 people are provided with a protein meal. Following the meal, Dr. Adams measures reaction times for all participants.

\_\_\_\_ 85. In Dr. Adams' Study, what are the treatment conditions?

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| --- | --- |
| a. | reaction times |
| b. | carbohydrate meal and protein meal |
| c. | carbohydrate meals |
| d. | protein meals |

\_\_\_\_ 86. In Dr. Adams' Study, how many levels of the independent variable are there?

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| --- | --- |
| a. | 100 |
| b. | 50 |
| c. | 2 |
| d. | 1 |

\_\_\_\_ 87. In Dr. Adams' Study, how many independent variables are there?

|  |  |
| --- | --- |
| a. | 100 |
| b. | 50 |
| c. | 2 |
| d. | 1 |

\_\_\_\_ 88. In an experimental research study, the researcher manipulates the \_\_\_\_ variable and measures the \_\_\_\_ variable.

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| --- | --- |
| a. | dependent, independent |
| b. | dependent, extraneous |
| c. | independent, dependent |
| d. | independent, extraneous |

\_\_\_\_ 89. In order to establish an unambiguous relationship between two variables, it is necessary to eliminate the possible influence of \_\_\_\_.

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| --- | --- |
| a. | extraneous variables |
| b. | confounding variables |
| c. | independent variables |
| d. | dependent variables |

\_\_\_\_ 90. Which of the following are characteristics of a confounding variable?

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| --- | --- |
| a. | It varies systematically with the independent variable. |
| b. | It has the potential to influence the dependent variable. |
| c. | It provides an alternative explanation for the results obtained in a research study. |
| d. | All of the other options are characteristics of a confounding variable. |

\_\_\_\_ 91. In an experiment, a researcher must control extraneous variables to prevent them from becoming \_\_\_\_ variables.

|  |  |
| --- | --- |
| a. | independent |
| b. | dependent |
| c. | confounding |
| d. | randomized |

\_\_\_\_ 92. In an experiment, participants are usually assigned to treatments using random assignment. The reason for using random assignment is

|  |  |
| --- | --- |
| a. | to allow the experimenter to manipulate participant variables. |
| b. | to allow the experimenter to manipulate environmental variables. |
| c. | to help control extraneous variables. |
| d. | it is a required component of all experiments. |

\_\_\_\_ 93. Dr. Kim systematically varies the amount of caffeine in cola (0, 10, and 20 mg) and observes that his participants' anxiety levels increase. The 0-mg condition represents the

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| a. | experimental group. |
| b. | placebo control group. |
| c. | no-treatment control group. |
| d. | waiting-list control group. |

\_\_\_\_ 94. Manipulation checks are particularly important when

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| --- | --- |
| a. | there are small changes from one treatment condition to the other. |
| b. | simulations are used. |
| c. | a placebo is used. |
| d. | the other three choices are all situations in which manipulation checks are important. |

\_\_\_\_ 95. What is the general purpose for using simulations and field studies?

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| a. | to increase external validity |
| b. | to increase internal validity |
| c. | to verify that the manipulation of the independent variable was successful |
| d. | to prevent extraneous variables from becoming confounding variables |

\_\_\_\_ 96. A researcher moves an experiment out of the laboratory and into the real world. This type of research is called

|  |  |
| --- | --- |
| a. | a simulation study. |
| b. | a field study. |
| c. | a transported study. |
| d. | a quasi-experimental study. |

\_\_\_\_ 97. What is the advantage of a laboratory study over a field study?

|  |  |
| --- | --- |
| a. | increased internal validity |
| b. | increased external validity |
| c. | increased reliability |
| d. | elimination of history effects |

\_\_\_\_ 50. A researcher is interested in the eating behavior of rats and selects a group of 25 rats to be tested in a research study. The group of 25 rats is a \_\_\_\_.

|  |  |
| --- | --- |
| a. | sample |
| b. | statistic |
| c. | population |
| d. | parameter |

\_\_\_\_ 51. A researcher is curious about the average IQ of registered voters in the state of Florida. The entire group of registered voters in Florida is an example of a \_\_\_\_.

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| --- | --- |
| a. | sample |
| b. | statistic |
| c. | population |
| d. | parameter |

\_\_\_\_ 52. The group of individuals from which researchers actually select participants for research studies is called \_\_\_\_.

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| a. | the accessible population |
| b. | the target population |
| c. | the representative population |
| d. | the real population |

\_\_\_\_ 53. Probability sampling requires

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| --- | --- |
| a. | the exact population size is known. |
| b. | each individual has a known probability of being selected. |
| c. | each individual is equally likely to be selected. |
| d. | the other three choices are all requirements of probability sampling. |

\_\_\_\_ 54. The names of all the students in a class are listed on separate pieces of paper. The teacher places the papers in a hat and mixes them thoroughly before reaching in to draw out five names. The teacher is using

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| --- | --- |
| a. | simple random sampling. |
| b. | stratified random sampling. |
| c. | proportionate stratified random sampling. |
| d. | cluster sampling. |

\_\_\_\_ 55. The major advantage of a simple random sample is

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| --- | --- |
| a. | it ensures that there will be enough participants in each subset of the population to be able to make statistical decisions concerning the subset. |
| b. | it ensures that no single group is over-represented in the sample. |
| c. | it ensures that the sample will provide an accurate representation of the population. |
| d. | it ensures that the selection procedure is unbiased although the outcome may be biased. |

\_\_\_\_ 56. Systematic sampling involves

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| --- | --- |
| a. | selecting preexisting groups instead of selecting individuals. |
| b. | dividing the population into subgroups and then selecting equal random samples from each subgroup. |
| c. | listing the individuals in the population and then selecting every nth person on the list. |
| d. | listing the individuals in the population and then using a random process to select people for the sample. |

\_\_\_\_ 57. A professor teaching an introductory psychology class of 200 obtains a sample of 25 students by selecting every 8th name from the class list. The professor is using

|  |  |
| --- | --- |
| a. | simple random sampling. |
| b. | convenience sampling. |
| c. | proportionate stratified random sampling. |
| d. | systematic sampling. |

\_\_\_\_ 58. A researcher selects a sample of n = 300 individuals from a known population by first identifying three groups that should be represented (single adults, married adults, and divorced adults) and then obtaining a random sample of n = 100 from each group. This is an example of

|  |  |
| --- | --- |
| a. | parametric sampling. |
| b. | cluster sampling. |
| c. | stratified sampling. |
| d. | proportionate stratified sampling. |

\_\_\_\_ 59. One criticism of a stratified random sample is

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| --- | --- |
| a. | it is not based on a random selection process. |
| b. | the overall composition of the sample is usually not representative of the overall composition of the population. |
| c. | some segments of the population will not be represented in the sample. |
| d. | all of the other choices are criticisms of a stratified random sample. |

\_\_\_\_ 60. Psychology majors at the state college consist of 40% males and 60% females. The psychology department is conducting a survey of its majors and randomly selects a group of 20 males and 30 females from the list of majors. This is an example of \_\_\_\_ sampling.

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| --- | --- |
| a. | stratified random |
| b. | proportionate stratified random |
| c. | systematic |
| d. | quota |

\_\_\_\_ 61. The workers in a factory are organized into 5-person teams. When conducting a work-environment survey, a researcher randomly selected 10 teams to obtain a total sample of 50 workers. The researcher used

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| --- | --- |
| a. | simple random sampling. |
| b. | stratified random sampling. |
| c. | proportionate stratified random sampling. |
| d. | cluster sampling. |

\_\_\_\_ 62. A researcher obtains a sample of 25 participants by asking students in an introductory psychology class to sign up. The researcher is using

|  |  |
| --- | --- |
| a. | cluster sampling. |
| b. | quota sampling. |
| c. | simple random sampling. |
| d. | convenience sampling. |

\_\_\_\_ 63. The technique of quota sampling is most similar to

|  |  |
| --- | --- |
| a. | simple random sampling. |
| b. | stratified random sampling. |
| c. | cluster sampling. |
| d. | systematic sampling. |

\_\_\_\_ 64. A researcher asks students to sign up for a research study and then selects the first 15 males and 15 females who sign up. The researcher is using

|  |  |
| --- | --- |
| a. | cluster sampling. |
| b. | quota sampling. |
| c. | simple random sampling. |
| d. | convenience sampling. |

Answer Key: Disregard REFs

1. ANS: B REF: 199

2. ANS: A REF: 199-200

3. ANS: A REF: 199-200

4. ANS: C REF: 202-203 OBJ: www

5. ANS: A REF: 203 OBJ: www

6. ANS: B REF: 205 OBJ: www

7. ANS: A REF: 207-208

8. ANS: D REF: 205-208 OBJ: www

9. ANS: C REF: 219

10. ANS: B REF: 225

11. ANS: B REF: 225

12. ANS: B REF: 244

13. ANS: D REF: 226 OBJ: www

14. ANS: C REF: 244 OBJ: www

15. ANS: A REF: 228

16. ANS: D REF: 232

17. ANS: C REF: 233

18. ANS: C REF: 234 OBJ: www

19. ANS: C REF: 237 OBJ: www

20. ANS: A REF: 241

65. ANS: D REF: 134 OBJ: www

66. ANS: D REF: 134-135

67. ANS: B REF: 136

68. ANS: B REF: 136 OBJ: www

69. ANS: D REF: 136 OBJ: www

70. ANS: B REF: 139 OBJ: www

71. ANS: A REF: 139

72. ANS: A REF: 139

73. ANS: B REF: 140

74. ANS: C REF: 141

75. ANS: A REF: 141

76. ANS: D REF: 144-145

77. ANS: A REF: 147-148

78. ANS: C REF: 148

79. ANS: D REF: 149

80. ANS: B REF: 153 OBJ: www

81. ANS: D REF: 155-161

82. ANS: B REF: 159-160

83. ANS: B REF: 164

84. ANS: B REF: 170

85. ANS: B REF: 170

86. ANS: C REF: 170 OBJ: www

87. ANS: D REF: 170

88. ANS: C REF: 172

89. ANS: B REF: 178

90. ANS: D REF: 178

91. ANS: C REF: 180 OBJ: www

92. ANS: C REF: 183

93. ANS: C REF: 187

94. ANS: D REF: 190

95. ANS: A REF: 191

96. ANS: B REF: 193 OBJ: www

97. ANS: A REF: 194

50. ANS: A REF: 117

51. ANS: C REF: 117

52. ANS: A REF: 118

53. ANS: D REF: 121

54. ANS: A REF: 122 OBJ: www

55. ANS: D REF: 123

56. ANS: C REF: 123

57. ANS: D REF: 123

58. ANS: C REF: 124

59. ANS: B REF: 125 OBJ: www

60. ANS: B REF: 125

61. ANS: D REF: 126

62. ANS: D REF: 127

63. ANS: B REF: 129

64. ANS: B REF: 129