**School of Psychology. University of Seville**

**Design and Data Analysis in Psychology I. Partial 2 exam. April, 2019**

**GENERAL RULES FOR THE EXAM**

This exam consists of 10 questions with three response options (a, b and c) that must be answered by writing the option chosen on the answer sheet. Only one of the alternatives is correct. **The errors do not subtract from the final score.** You have 45 minutes to do the exam.

|  |  |  |
| --- | --- | --- |
| **Case 1. Memorization** | | |
| N | Valid | 21 |
| Mean | | 4.24 |
| Mode | | 5 |
| Std. Deviation | | 1.700 |
| Skewness | | -.546 |
| Std. Error of Skewness | | .501 |
| Kurtosis | | -.489 |
| Std. Error of Kurtosis | | .972 |
| Percentiles | 10 | 1.20 |
| 20 | 2.40 |
| 25 | 3.00 |
| 30 | 3.60 |
| 40 | 4.00 |
| 50 | 5.00 |
| 60 | 5.00 |
| 70 | 5.00 |
| 75 | 5.50 |
| 80 | 6.00 |
| 90 | 6.00 |

1. The semiinterquartile amplitude is:
   1. 1
   2. 1.25
   3. 2.5
2. The distribution is:
   1. Symmetric
   2. Asymmetric positive
   3. Asymmetric negative
3. The Pearson variation coefficient is:
   1. 40.09
   2. 34
   3. 30.57
4. The distribution is:
   1. Platykurtic
   2. Mesokurtic
   3. Leptokurtic

**Case 2.** We have a sample that presents normal distribution with mean 32 and standard deviation 4.

1. The raw score that leaves behind the 90% of the data is:
   1. 29.88
   2. 32.62
   3. 37.12
2. The z score that corresponds to is:
   1. 0.74
   2. -0.61
   3. -0.17

**Case 3.** In a population with normal distribution, we know that the mean of cigarettes smoked in a day is 6.14, and the standard deviation is 3.24. Taking from this population a sample of 49:

1. The standard error is:
   1. 0.56
   2. 0.52
   3. 0.46
2. Taking into account the previous result, the means of cigarettes that correspond to the central 95% of the sampling distribution are:
   1. 5.96-8.21
   2. 4.25-8.03
   3. 5.24-7.04

**Case 4.** Scores obtained in an abstract reasoning test (X) by a sample of 100 students are normally distributed, with a standard deviation of 24. There are 25 students below score 73.92 and 25 students over score 106.08.

1. P75 is:
   1. 110.02
   2. 106.08
   3. 105.20
2. How many students obtained a score lower than 100 in the abstract reasoning test?
   1. 66
   2. 44
   3. 37

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**ANSWER SHEET**

|  |  |
| --- | --- |
| Item | **Option** |
| 1 | B |
| 2 | C |
| 3 | A |
| 4 | A |
| 5 | C |
| 6 | B |
| 7 | C |
| 8 | C |
| 9 | B |
| 10 | A |