QUIZ TIME

Bio–statistics lec5

Done by:

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1. Which of the following is not a measure of central tendency?
A. Mode
B. Variance
C. Median
D. Mean
Correct Answer: B

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2. A frequency distribution helps primarily to:
A. Show the population's exact values
B. Identify the data collection method
C. Estimate the shape and spread of data
D. Eliminate the need for sampling
Correct Answer: C

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3. What does a positively skewed distribution indicate?
A. The mode is greater than the mean
B. The mean is less than the median
C. The tail extends to the right
D. The data is perfectly symmetrical
Correct Answer: C

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4. Which best describes a multimodal distribution?
A. It has a high peak and thin tails
B. It has more than one peak
C. It is symmetrical around the mean
D. It has no variance
Correct Answer: B

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5. Kurtosis refers to:
A. The number of peaks in a distribution
B. The symmetry of a distribution
C. The flatness or peakedness of a distribution
D. The direction of skew in a distribution
Correct Answer: C

6. A symmetrical distribution with thin tails and low kurtosis would appear:
A. Flat in the middle with few extreme values
B. Peaked in the center with many extreme values
C. Skewed to the right
D. With many local peaks
Correct Answer: A

Question:
A certain test has a mean score of 80 and a standard deviation of 5. What is the probability that a randomly selected student scored more than 87?

A. 0.9332
B. 0.0668
C. 0.8159
D. 0.1359
Correct Answer: B. 0.0668

Question
In a normal distribution with $\mu = 100$ and $\sigma = 15$, what score corresponds to $Z = -0.67$?

A. 110.05
B. 89.95
C. 99.33
D. 90.00
✅ Correct Answer: B. 89.95

$X = \mu + Z\sigma = 100 + (-0.67)(15) = 100 - 10.05 = 89.95$

Question:
A standardized test has a mean score of 500 and a standard deviation of 100. What is the probability that a randomly selected student scored between 400 and 600?

A. 0.3413
B. 0.6826
C. 0.9545
D. 0.4772
✅ Correct Answer: B. 0.6826

Solution:
• Z_1 for 400 = (400 - 500) / 100 = -1
• Z_2 for 600 = (600 - 500) / 100 = +1
• $P(-1 < Z < +1) = 0.6826$

Question:
A set of scores is normally distributed with a mean of 100 and standard deviation of 15. What is the probability that a randomly chosen score is less than 85?

A. 0.0668
B. 0.1587
C. 0.3085
D. 0.9332
✅ Correct Answer: B