

CHAPTER-13 | STATISTICS

QUIZ
PART-09

1. In the electricity-consumption table, total number of consumers is:
- A. 60
B. 64
C. 68
D. 70 (C)

Explanation: The question states that the data are for 68 consumers.

2. In the electricity-consumption table, the modal class is:
- A. 105–125
B. 125–145
C. 145–165
D. 165–185 (B)

Explanation: The class 125–145 has the highest frequency, which is 20.

3. In the distribution with median 28.5 and total frequency 60, the value of $x + y$ is:
- A. 10
B. 15
C. 20
D. 25 (B)

Explanation: Since total frequency is 60, adding known frequencies gives $5 + x + 20 + 15 + y + 5 = 60$, so $x + y = 15$.

4. In the same distribution, the value of x is:
- A. 5
B. 8
C. 10
D. 12 (A)

Explanation: Using the median formula with median class 20–30, the missing value comes out to be $x = 5$.

5. In the policy-holder data, total number of policy holders is:
- A. 90
B. 95
C. 100
D. 105 (C)

Explanation: The cumulative data finally reaches 100, so the total number of policy holders is 100.

6. In the policy-holder table, the median age class is:
- A. 25–30
B. 30–35
C. 35–40
D. 40–45 (C)

Explanation: Since $n/2 = 50$, the first cumulative frequency greater than 50 is 78, which corresponds to the class 35–40.

7. The median age of the policy holders is closest to:
- A. 34.27 years
B. 35.27 years
C. 36.27 years
D. 37.27 years (C)

Explanation: Using the median formula for grouped data, the median age is about 36.27 years.

8. In the leaves table, total number of leaves is:
- A. 35
B. 38
C. 40
D. 42 (C)

Explanation: Adding all frequencies gives 40 leaves.

9. In the leaves table, the median class is:
- A. 135.5–144.5
B. 144.5–153.5
C. 153.5–162.5
D. 162.5–171.5 (B)

Explanation: Here $n/2 = 20$, and the first cumulative frequency equal to or greater than 20 is 29, so the median class is 144.5–153.5.

10. The median length of the leaves is closest to:
- A. 145.5 mm
B. 146.5 mm
C. 147.5 mm
D. 148.5 mm (B)

Explanation: Applying the median formula gives the median length as 146.5 mm.