

STATISTICS
MCQ EXTRA QUESTIONS

1. The class mark of the class 90-130 is:
(a) 90 (b) 105 (c) 115 (d) 110
 2. The range of the data:
25, 81, 20, 22, 16, 6, 17, 15, 12, 30, 32, 10, 91, 8, 11, 20 is
(a) 10 (b) 75 (c) 85 (d) 26
 3. In a frequency distribution, the mid value of a class is 10 and the width of the class is 6. The upper limit of the class is:
(a) 6 (b) 7 (c) 10 (d) 13
 4. The width of each of five continuous classes in a frequency distribution is 5 and the lower class-limit of the lowest class is 10. The lower class-limit of the highest class is
(a) 15 (b) 30 (c) 35 (d) 40
 5. Let m be the mid-point and l be the lower class limit of a class in a continuous frequency distribution. The upper class limit of the class is:
(a) $2m + l$ (b) $2m - l$ (c) $m - l$ (d) $m - 2l$
 6. The class marks of a frequency distribution are given as follows:
15, 20, 25, ... The class corresponding to the class mark 15 is:
(a) 12.5-17.5 (b) 17.5 - 22.5 (c) 18.5- 21.5 (d) 19.5- 20.5
 7. In the class intervals 10-20, 20-30, the number 20 is included in:
(a) 10-20 (b) 20-30 (c) both the intervals (d) none of these intervals
 8. A grouped frequency table with class intervals of equal sizes using 250-270 (270 not included in this interval) as one of the class interval is constructed for the following data:
268, 220, 368, 258, 242, 310, 272, 342, 310, 290, 300, 320, 319, 304, 402, 318, 406, 292, 354, 278, 210, 240, 330, 316, 406, 215, 258, 236. The frequency of the class 370-390 is:
(a) 0 (b) 1 (c) 3 (d) 5
 9. A grouped frequency distribution table with classes of equal sizes using 63-72 (72 included) as one of the class is constructed for the following data: 30, 32, 45, 54, 74, 78, 108, 112, 66, 76, 88, 40, 14, 20, 15, 35, 44, 66, 75, 84, 95, 96, 102, 110, 88, 74, 112, 14, 34, 44.
The number of classes in the distribution will be:
(a) 9 (b) 10 (c) 11 (d) 12
 10. To draw a histogram to represent the following frequency distribution:
- | | | | | | |
|-----------------------|------|-------|-------|-------|-------|
| Class interval | 5-10 | 10-15 | 15-25 | 25-45 | 45-75 |
| Frequency | 6 | 12 | 10 | 8 | 15 |
- the adjusted frequency for the class 25-45 is:
(a) 6 (b) 5 (c) 3 (d) 2
11. For drawing a frequency polygon of a continuous frequency distribution, we plot the points whose ordinates are the frequencies of the respective classes and abscissa are respectively:
(a) upper limits of the classes (b) lower limits of the classes (c) class marks of the classes
(d) upper limits of preceding classes
 - a) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion
b) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
c) Assertion is true but the reason is false.
d) Assertion is false and reason is true.
 12. Assertion (A): Histogram is a resultant graph that appears like a solid figure, with consecutive

rectangles having no gap in between.

Reason (R): Histogram is a graphical representation of a grouped frequency distribution with consecutive classes.

13. Assertion (A): Frequency polygons can be drawn independently without the histogram by joining the midpoints of the class-marks. These midpoint of the class marks are called class intervals.

Reason (R): Class mark = $(\text{Upper limit} + \text{Lower limit})/2$

14. Assertion (A): In a frequency distribution, the mid value of a class is 10 and width of each class is 6. The upper limit of the class is 7.

Reason (R): Let x and y be the upper and lower limit. We will get two equations. Width of a class $x - y = 6$ and mid value of a class $x + y = 20$

15. Assertion (A): The class marks of a frequency distribution are 15, 20, 25, 30, The class corresponding to the class mark 25 is 22.5 - 27.5

Reason (R): Required class can be calculated with the help of class width and class marks.

16. Assertion (A): In the class intervals 30 - 40, 40 - 50 the number 40 is included in 40 - 50

Reason (R): Upper limit is always included in the interval but lower limit does not include in the interval

17. Assertion (A): The data collected by the investigator himself for a definite plan (or) purpose is known as secondary data.

Reason (R): The data collected by someone and used by any other person known as secondary data.

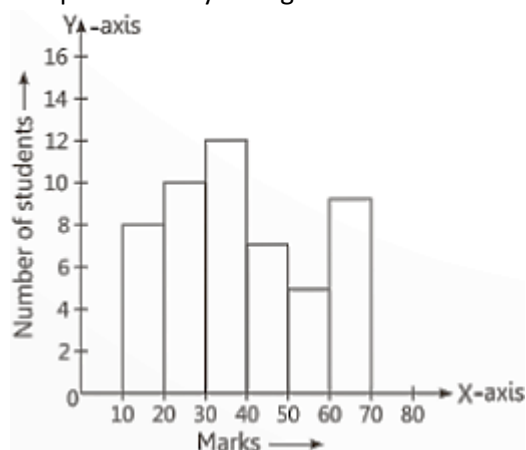
18. Assertion (A): The range of the first 5 multiples of 5 is 10.

Reason (R): Range is equal to the difference of maximum and minimum value.

19. Assertion (A): The following frequency distribution:

Marks	10-20	20-30	30-40	40-50	50-60	60-70
Number of students	8	10	12	7	5	9

is represented by histogram as shown below.



Reason (R): In a histogram there is no gap between any two consecutive rectangles.

20. The marks of different students are given below:

Marks	Number of Students
0-10	8
10-30	12
30-45	15
45-50	10
50-60	5

Assertion (A): The adjusted frequency of class interval 45-50 is 10.

Reason (R): The adjusted frequency of any class can be determined by the formula

Adjusted frequency of a class $\frac{\text{Minimum class size}}{\text{Class size}} \times \text{Frequency of the class}$

21. The daily earning of 40 drug stores in the following table:

Daily earning (in ₹)	Number of Stores
200-300	12
300-400	14
400-500	8
500-600	6

Assertion (A): To draw the frequency polygon of the given data, firstly we plot the points (250, 12), (350, 14), (450, 8) and (550, 6) on a graph paper and join these points through a line segment.

Reason (R): Frequency Polygon curve can be constructed only when given data is continuous.