1.  Given class interval 36 - 45 in exclusive form, its lower limit is

    (i)  35   (ii)  36   (iii)  34   (iv)  39   (v)  37

2.  Given class interval 50 - 54 in exclusive form, its upper limit is

    (i)  55   (ii)  53   (iii)  52   (iv)  57   (v)  54

3.  Given class interval 12 - 14 in exclusive form, its class size is

    (i)  1   (ii)  2   (iii)  4   (iv)  3   (v)  0

4.  Given class interval 24 - 30 in exclusive form, its class mark is

    (i)  26   (ii)  27   (iii)  28   (iv)  25   (v)  30

5.  Given class interval 25 - 32 in exclusive form, its mid value is

    (i)  $\dfrac{55}{2}$   (ii)  $\dfrac{57}{2}$   (iii)  29   (iv)  $\dfrac{113}{4}$   (v)  $\dfrac{59}{2}$

6.  If the upper and lower limit of class interval are 49 and 44 respectively, then the class interval is

    (i)  43.5-49   (ii)  44.5-48.5   (iii)  43.5-49.5   (iv)  44-49   (v)  44-49.5

7.  If the lower and upper limit of class interval are 45 and 48 respectively, then the class interval is

    (i)  44.5-48.5   (ii)  45-48.5   (iii)  44.5-48   (iv)  45.5-47.5   (v)  45-48

8.  The class boundaries of 27 - 31 which is in exclusive form are

    (i)  27-31   (ii)  26.5-31   (iii)  27.5-30.5   (iv)  26.5-31.5   (v)  27-31.5

9.  The class boundaries of 25 - 35 which is in inclusive form are

    (i)  24-35.5   (ii)  24.5-35.5   (iii)  24-36   (iv)  24.5-36   (v)  25-35

10.
    The true lower limit and true upper limit of the class with frequency x is

    | Class-Interval | Frequency |
    |----------------|-----------|
    | 15 - 20        | 1         |
    | 21 - 26        | 1         |
    | 27 - 32        | 28        |
    | 33 - 38        | x         |
    | 39 - 44        | 23        |

    (i)  33-38   (ii)  32.5-39   (iii)  32.5-38.5   (iv)  32-39   (v)  32-38.5

11. The true lower limit and true upper limit of the class with frequency x is

| Class-Interval | Frequency |
| --- | --- |
| 16 - 22 | x |
| 22 - 28 | 1 |
| 28 - 34 | 29 |
| 34 - 40 | 11 |
| 40 - 46 | 24 |

(i) 16.5-21.5  (ii) 16-22.5  (iii) 15.5-22.5  (iv) 16-22  (v) 15.5-22

12. The lower limit of the class with frequency x is

| Class-Interval | Frequency |
| --- | --- |
| 42 - 51 | 1 |
| 52 - 61 | 20 |
| 62 - 71 | x |
| 72 - 81 | 16 |
| 82 - 91 | 1 |

(i) 62  (ii) 65  (iii) 61  (iv) 63  (v) 60

13. The class size used in the below table is

| Class-Interval | 21 - 26 | 27 - 32 | 33 - 38 | 39 - 44 |
| --- | --- | --- | --- | --- |
| Frequency | 15 | 9 | 8 | 7 |

(i) 4  (ii) 6  (iii) 9  (iv) 5  (v) 7

14. The class size used in the below table is

| Class-Interval | 32 - 39 | 39 - 46 | 46 - 53 | 53 - 60 |
| --- | --- | --- | --- | --- |
| Frequency | 18 | 13 | 15 | 30 |

(i) 7  (ii) 6  (iii) 9  (iv) 8  (v) 5

15. Which of the following are true?

a) Each numerical figure in a data set is called an observation.
b) The difference between the true upper limit and true lower limit is called the class mark.
c) The true lower limit of the exclusive form class interval 10 - 20 is 10.
d) The true lower limit of the inclusive form class interval 10 - 20 is 10.
e) The number of times a particular observation occurs is called its frequency.

(i) {d,c}  (ii) {a,c,e}  (iii) {b,a,c}  (iv) {b,d,e}  (v) {b,a}

16. Which of the following class intervals are in inclusive form?

a) 15.5 - 24.5 , 24.5 - 33.5 , 33.5 - 42.5...
b) 16 - 24 , 25 - 33 , 34 - 42,...
c) 43 - 51 , 52 - 60 , 61 - 69,...
d) 40 - 48 , 48 - 56 , 56 - 64...
e) 16 - 24 , 24 - 32 , 32 - 40,...

(i) {b,c}  (ii) {d,c}  (iii) {e,a,b}  (iv) {d,c,b}  (v) {a,b}

17. In inclusive form representation, the observation 50 falls in which class?

(i) 30-40  (ii) 40-50  (iii) 51-60  (iv) 35-45  (v) 39-49

18. In exclusive form representation, the observation 17 falls in which class?

(i) 12-17  (ii) 17-27  (iii) 7-17  (iv) 27-37  (v) 22-32

19. The class mark of the class with frequency x is

| Class-Interval | Frequency |
|---|---|
| 20 - 25 | 2 |
| 26 - 31 | 15 |
| 32 - 37 | x |
| 38 - 43 | 15 |
| 44 - 49 | 19 |

(i) $\dfrac{137}{4}$  (ii) 35  (iii) $\dfrac{69}{2}$  (iv) $\dfrac{67}{2}$  (v) $\dfrac{71}{2}$

20. The class mark of the class with frequency x is

| Class-Interval | Frequency |
|---|---|
| 14 - 19 | 27 |
| 19 - 24 | 26 |
| 24 - 29 | x |
| 29 - 34 | 6 |
| 34 - 39 | 5 |

(i) $\dfrac{105}{4}$  (ii) $\dfrac{55}{2}$  (iii) 27  (iv) $\dfrac{53}{2}$  (v) $\dfrac{51}{2}$

21. The mid value of the class with frequency x is

| Class-Interval | Frequency |
|---|---|
| 1 - 6 | 26 |
| 7 - 12 | 20 |
| 13 - 18 | 27 |
| 19 - 24 | 19 |
| 25 - 30 | x |

(i) $\dfrac{53}{2}$  (ii) $\dfrac{109}{4}$  (iii) 28  (iv) $\dfrac{57}{2}$  (v) $\dfrac{55}{2}$

22. The mid value of the class with frequency x is

| Class-Interval | Frequency |
|---|---|
| 19 - 29 | 12 |
| 29 - 39 | x |
| 39 - 49 | 22 |
| 49 - 59 | 9 |
| 59 - 69 | 15 |

(i) 33  (ii) 37  (iii) 35  (iv) 32  (v) 34

23. The class boundaries of the class with frequency x is

| Class-Interval | Frequency |
|---|---|
| 16 - 23 | x |
| 24 - 31 | 15 |
| 32 - 39 | 19 |
| 40 - 47 | 30 |
| 48 - 55 | 19 |

(i) 15-24  (ii) 15.5-23.5  (iii) 15-23.5  (iv) 16-23  (v) 15.5-24

24. The class boundaries of the class with frequency x is

| Class-Interval | Frequency |
|---|---|
| 37 - 44 | 15 |
| 44 - 51 | 5 |
| 51 - 58 | 4 |
| 58 - 65 | 11 |
| 65 - 72 | x |

(i) 65.5-71.5  (ii) 65-72.5  (iii) 65-72  (iv) 64.5-72  (v) 64.5-72.5

25. The upper limit of the class with frequency x is

| Class-Interval | Frequency |
|---|---|
| 26 - 36 | 23 |
| 36 - 46 | 22 |
| 46 - 56 | 8 |
| 56 - 66 | x |
| 66 - 76 | 19 |

(i) 65  (ii) 68  (iii) 66  (iv) 64  (v) 67

26. If the sample data with range 60 has to be divided into 5 class intervals, then the length of the class is

(i) 13  (ii) 11  (iii) 12  (iv) 14  (v) 9

27. If the length of the class is 10, then the number of class intervals needed to represent data with range 40 is

(i) 5  (ii) 7  (iii) 4  (iv) 1  (v) 3

28. The number of classes of class size 8 required to represent the given random sample in exclusive form

1  6  7  9  11  12  15  17  18  20  21  21  23  23  24  27  27  30  32  34  34  37  38  38  38  40  41  43  43  44  46  47  49

(i) 6  (ii) 7  (iii) 10  (iv) 4  (v) 8

29. If some random sample data is arranged in a frequency distribution table in inclusive form with 5 - 14 as the first class, then the observation 30 falls in which class?

(i) 26-35  (ii) 25.5-33.5  (iii) 25-34  (iv) 24-33  (v) 24.5-34.5

30. If some random sample data is arranged in a frequency distribution table in exclusive form with 2 - 9 as the first class, then the observation 25 falls in which class?

(i) 24-31  (ii) 23-30  (iii) 23.5-29.5  (iv) 22-29  (v) 22.5-30.5

31. Given class interval table, find the sum of frequencies.

| Class-Interval | 25 - 34 | 34 - 43 | 43 - 52 | 52 - 61 |
|---|---|---|---|---|
| Frequency | 20 | 10 | 14 | 11 |

(i) 52  (ii) 55  (iii) 56  (iv) 54  (v) 58

32. Which of the following are continuous variables?

a) Number of members in a family.
b) Weights of persons in a group.
c) Heights of children in a class.
d) Wages of workers in a factory.
e) Number of workers in a factory.

(i) {b,c,d}  (ii) {a,e,d}  (iii) {a,b}  (iv) {a,b,c}  (v) {e,c}

33. Which of the following are discontinuous variables?

   a) Weights of persons in a group.
   b) Number of members in a family.
   c) Number of workers in a factory.
   d) Heights of children in a class.
   e) Wages of workers in a factory.

   (i) {b,c}  (ii) {d,c}  (iii) {e,a,b}  (iv) {d,c,b}  (v) {a,b}

34. Which of the following class intervals are in exclusive form?

   a) 41 - 50 , 51 - 60 , 61 - 70,...
   b) 11 - 20 , 21 - 30 , 31 - 40,...
   c) 10.5 - 20.5 , 20.5 - 30.5 , 30.5 - 40.5...
   d) 38 - 47 , 47 - 56 , 56 - 65...
   e) 11 - 20 , 20 - 29 , 29 - 38,...

   (i) {a,c,d}  (ii) {a,c}  (iii) {c,d,e}  (iv) {a,b,e}  (v) {b,d}

35. If the sum of the following frequency distribution is 24 ,
find the value of 'x'.

| Value | Frequency |
|-------|-----------|
| 2 | 1 |
| 3 | 2 |
| 5 | 3 |
| 6 | 2 |
| 7 | 2 |
| 8 | 2 |
| 9 | 3 |
| 10 | 3 |
| 11 | x |
| 12 | 1 |
| 14 | 4 |

   (i) 0  (ii) -2  (iii) 3  (iv) 1  (v) 2

36. If the sum of the following frequency distribution is 38 ,
find the value of 'x'.

| Class-Interval | Frequency |
|----------------|-----------|
| 10 - 16 | 7 |
| 17 - 23 | 9 |
| 24 - 30 | 4 |
| 31 - 37 | 2 |
| 38 - 44 | 7 |
| 45 - 51 | x |

   (i) 7  (ii) 9  (iii) 8  (iv) 11  (v) 10

37. Which of the following are continuous variables?

   a) Weights of persons in a group
   b) Number of workers in a factory
   c) Wages of workers in a factory
   d) Population of cities
   e) Marks obtained by student in a particular subject

   (i)  {b,a}   (ii)  {e,b,a}   (iii)  {d,c,a}   (iv)  {d,c}   (v)  {a,c}

38. Which of the following are discrete variables?

   a) Wages of workers in a factory
   b) Number of workers in a factory
   c) Heights of children in a class
   d) Marks obtained by student in a particular subject
   e) Rainfall at a place over a month

   (i)  {c,d,b}   (ii)  {b,d}   (iii)  {e,a,b}   (iv)  {c,d}   (v)  {a,b}

39. Convert the exclusive form of the class interval 18.5 - 25.5 to inclusive form

   (i)  19.5-24.5   (ii)  18.5-25.5   (iii)  19-25.5   (iv)  18.5-25   (v)  19-25

40. Convert the inclusive form of the class interval 38 - 44 to exclusive form

   (i)  38-44   (ii)  37.5-45   (iii)  37-44.5   (iv)  37.5-44.5   (v)  37-45

41. Convert the discontinuous form of the class interval 29 - 35 to continuous form

   (i)  28-35.5   (ii)  28.5-36   (iii)  28.5-35.5   (iv)  28-36   (v)  29-35

42. Convert the continuous form of the class interval 27.5 - 31.5 to discontinuous form

   (i)  28-31.5   (ii)  27.5-31   (iii)  28.5-30.5   (iv)  28-31   (v)  27.5-31.5

Given table in inclusive form, convert it into exclusive form.

43.

| Class-Interval | 12 - 21 | 22 - 31 | 32 - 41 | 42 - 51 | 52 - 61 | 62 - 71 |
|---|---|---|---|---|---|---|
| Frequency | 11 | 39 | 16 | 10 | 38 | 40 |

(i)

| Class-Interval | 12 - 21 | 21 - 30 | 30 - 39 | 39 - 48 | 48 - 57 | 57 - 66 |
|---|---|---|---|---|---|---|
| Frequency | 28 | 14 | 36 | 40 | 26 | 33 |

(ii)

| Class-Interval | 12.5 - 21.5 | 22.5 - 31.5 | 32.5 - 41.5 | 42.5 - 51.5 | 52.5 - 61.5 | 62.5 - 71.5 |
|---|---|---|---|---|---|---|
| Frequency | 11 | 39 | 16 | 10 | 38 | 40 |

(iii)

| Class-Interval | 11.5 - 21.5 | 21.5 - 31.5 | 31.5 - 41.5 | 41.5 - 51.5 | 51.5 - 61.5 | 61.5 - 71.5 |
|---|---|---|---|---|---|---|
| Frequency | 11 | 39 | 16 | 10 | 38 | 40 |

(iv)

| Class-Interval | 11.5 - 20.5 | 21.5 - 30.5 | 31.5 - 40.5 | 41.5 - 50.5 | 51.5 - 60.5 | 61.5 - 70.5 |
|---|---|---|---|---|---|---|
| Frequency | 11 | 39 | 16 | 10 | 38 | 40 |

(v)

| Class-Interval | 11.5 - 21 | 21.5 - 31 | 31.5 - 41 | 41.5 - 51 | 51.5 - 61 | 61.5 - 71 |
|---|---|---|---|---|---|---|
| Frequency | 11 | 39 | 16 | 10 | 38 | 40 |

## Assignment Key

| | | | | | |
|---|---|---|---|---|---|
| 1) (ii) | 2) (v) | 3) (ii) | 4) (ii) | 5) (ii) | 6) (iv) |
| 7) (v) | 8) (i) | 9) (ii) | 10) (iii) | 11) (iv) | 12) (i) |
| 13) (ii) | 14) (i) | 15) (ii) | 16) (i) | 17) (ii) | 18) (ii) |
| 19) (iii) | 20) (iv) | 21) (v) | 22) (v) | 23) (ii) | 24) (iii) |
| 25) (iii) | 26) (iii) | 27) (iii) | 28) (ii) | 29) (iii) | 30) (ii) |
| 31) (ii) | 32) (i) | 33) (i) | 34) (iii) | 35) (iv) | 36) (ii) |
| 37) (v) | 38) (ii) | 39) (v) | 40) (iv) | 41) (iii) | 42) (iv) |
| 43) (iii) | | | | | |