EduSahara™ Assignment

Name : Class Interval Table Concepts

Chapter : Graphical Representation of Statistical Data

Grade : ICSE Grade X

1. Given class interval 11 - 17 in exclusive form, its lower limit is

   (i) 11 (ii) 10 (iii) 12 (iv) 14 (v) 9

2. Given class interval 32 - 38 in exclusive form, its upper limit is

   (i) 40 (ii) 39 (iii) 36 (iv) 38 (v) 37

3. Given class interval 11 - 16 in exclusive form, its class size is

   (i) 4 (ii) 7 (iii) 5 (iv) 6 (v) 3

4. Given class interval 17 - 21 in exclusive form, its class mark is

   (i) 19 (ii) 20 (iii) 22 (iv) 18 (v) 16

5. Given class interval 12 - 21 in exclusive form, its mid value is

   (i) $\frac{33}{2}$ (ii) $\frac{35}{2}$ (iii) $\frac{65}{4}$ (iv) $\frac{31}{2}$ (v) 17

6. If the upper and lower limit of class interval are 30 and 23 respectively, then the class interval is

   (i) 23-30 (ii) 23-30.5 (iii) 22.5-30.5 (iv) 23.5-29.5 (v) 22.5-30

7. If the lower and upper limit of class interval are 34 and 39 respectively, then the class interval is

   (i) 33.5-39 (ii) 34-39 (iii) 34-39.5 (iv) 34.5-38.5 (v) 33.5-39.5

8. The class boundaries of 32 - 38 which is in exclusive form are

   (i) 32.5-37.5 (ii) 31.5-38.5 (iii) 31.5-38 (iv) 32-38.5 (v) 32-38

9. The class boundaries of 12 - 18 which is in inclusive form are

   (i) 11-19 (ii) 12-18 (iii) 11-18.5 (iv) 11.5-19 (v) 11.5-18.5

10. Convert the exclusive form of the class interval 46.5 - 54.5 to inclusive form

    (i) 47-54.5 (ii) 46.5-54 (iii) 47.5-53.5 (iv) 47-54 (v) 46.5-54.5

11. Convert the inclusive form of the class interval 21 - 31 to exclusive form

    (i) 20.5-31.5 (ii) 20.5-32 (iii) 20-31.5 (iv) 21-31 (v) 20-32

12. Convert the discontinuous form of the class interval 39 - 44 to continuous form

    (i) 38-45 (ii) 38.5-45 (iii) 39-44 (iv) 38-44.5 (v) 38.5-44.5

13. Convert the continuous form of the class interval 24.5 - 33.5 to discontinuous form

    (i) 25-33 (ii) 24.5-33 (iii) 25-33.5 (iv) 24.5-33.5 (v) 25.5-32.5

14. The class size used in the below table is

Class-Interval	50 - 59	60 - 69	70 - 79	80 - 89	90 - 99	100 - 109
Frequency	5	6	20	11	12	20

(i) 11 (ii) 8 (iii) 10 (iv) 9 (v) 12

15. The class size used in the below table is

Class-Interval	36 - 43	43 - 50	50 - 57	57 - 64	64 - 71	71 - 78	78 - 85	85 - 92
Frequency	6	6	10	30	27	11	28	6

(i) 6 (ii) 7 (iii) 9 (iv) 8 (v) 4

16. Which of the following are true?

a) The true lower limit of the exclusive form class interval 30 - 40 is 30.
b) Each numerical figure in a data set is called an observation.
c) The number of times a particular observation occurs is called its frequency.
d) The difference between the true upper limit and true lower limit is called the class mark.
e) The true lower limit of the inclusive form class interval 30 - 40 is 30.

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

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

a) 17.5 - 24.5 , 24.5 - 31.5 , 31.5 - 38.5...
b) 36 - 42 , 42 - 48 , 48 - 54...
c) 18 - 24 , 25 - 31 , 32 - 38,...
d) 39 - 45 , 46 - 52 , 53 - 59,...
e) 18 - 24 , 24 - 30 , 30 - 36,...

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

18. In inclusive form representation, the observation 40 falls in which class?

(i) 20-30 (ii) 29-39 (iii) 25-35 (iv) 30-40 (v) 41-50

19. In exclusive form representation, the observation 12 falls in which class?

(i) 2-12 (ii) 12-22 (iii) 17-27 (iv) 22-32 (v) 7-12

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

Class-Interval	Frequency
8 - 18	28
19 - 29	23
30 - 40	x
41 - 51	4
52 - 62	22

(i) 34 (ii) 33 (iii) 38 (iv) 35 (v) 36

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

Class-Interval	Frequency
12 - 22	29
22 - 32	11
32 - 42	22
42 - 52	x
52 - 62	25

(i) 48 (ii) 45 (iii) 50 (iv) 46 (v) 47

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

Class-Interval	Frequency
6 - 16	25
17 - 27	x
28 - 38	29
39 - 49	15
50 - 60	16

(i) 23 (ii) 20 (iii) 25 (iv) 22 (v) 21

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

Class-Interval	Frequency
20 - 25	5
25 - 30	x
30 - 35	14
35 - 40	3
40 - 45	26

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

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

Class-Interval	Frequency
13 - 21	14
22 - 30	x
31 - 39	11
40 - 48	20
49 - 57	28

(i) 21-30.5 (ii) 21.5-30.5 (iii) 21.5-31 (iv) 21-31 (v) 22-30

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

Class-Interval	Frequency
38 - 43	17
43 - 48	6
48 - 53	23
53 - 58	x
58 - 63	25

(i) 52.5-58 (ii) 53-58 (iii) 52.5-58.5 (iv) 53.5-57.5 (v) 53-58.5

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

Class-Interval	Frequency
18 - 25	x
26 - 33	15
34 - 41	13
42 - 49	2
50 - 57	2

(i) 17.5-25.5 (ii) 17.5-26 (iii) 17-26 (iv) 17-25.5 (v) 18-25

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

Class-Interval	Frequency
26 - 32	x
32 - 38	12
38 - 44	24
44 - 50	14
50 - 56	22

(i) 25.5-32 (ii) 26-32 (iii) 26.5-31.5 (iv) 25.5-32.5 (v) 26-32.5

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

Class-Interval	Frequency
13 - 20	2
21 - 28	x
29 - 36	16
37 - 44	29
45 - 52	17

(i) 18 (ii) 22 (iii) 21 (iv) 23 (v) 20

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

Class-Interval	Frequency
44 - 49	23
49 - 54	x
54 - 59	7
59 - 64	29
64 - 69	29

(i) 51 (ii) 54 (iii) 55 (iv) 56 (v) 53

30. If the sample data with range 70 has to be divided into 6 class intervals, then the length of the class is

(i) 10 (ii) 13 (iii) 12 (iv) 11 (v) 15

31. If the length of the class is 5, then the number of class intervals needed to represent data with range 40 is

(i) 6 (ii) 9 (iii) 8 (iv) 11 (v) 7

32. If some random sample data is arranged in a frequency distribution table in inclusive form with 7 - 16 as the first class, then the observation 32 falls in which class?

(i) 27-36 (ii) 26-35 (iii) 27.5-35.5 (iv) 26.5-36.5 (v) 28-37

33. If some random sample data is arranged in a frequency distribution table in exclusive form with 6 - 15 as the first class, then the observation 21 falls in which class?

(i) 15-24 (ii) 14-23 (iii) 15.5-23.5 (iv) 14.5-24.5 (v) 16-25

34. Find the sum of frequencies for the given table

Value	12	17	37	42	53	56	63	67	73	88
Frequency	1	1	1	1	1	1	1	1	1	1

(i) 13 (ii) 11 (iii) 10 (iv) 9 (v) 8

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

Class-Interval	33 - 40	41 - 48	49 - 56	57 - 64
Frequency	2	11	27	14

(i) 53 (ii) 55 (iii) 56 (iv) 52 (v) 54

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

Class-Interval	47 - 57	57 - 67	67 - 77	77 - 87
Frequency	10	6	24	23

(i) 66 (ii) 64 (iii) 61 (iv) 62 (v) 63

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

Class-Interval	20 - 26	27 - 33	34 - 40	41 - 47	48 - 54
Frequency	49	29	25	39	39

(i)

Class-Interval	19.5 - 26.5	26.5 - 33.5	33.5 - 40.5	40.5 - 47.5	47.5 - 54.5
Frequency	49	29	25	39	39

(ii)

Class-Interval	20.5 - 26.5	27.5 - 33.5	34.5 - 40.5	41.5 - 47.5	48.5 - 54.5
Frequency	49	29	25	39	39

(iii)

Class-Interval	19.5 - 26	26.5 - 33	33.5 - 40	40.5 - 47	47.5 - 54
Frequency	49	29	25	39	39

(iv)

Class-Interval	20 - 26	26 - 32	32 - 38	38 - 44	44 - 50
Frequency	44	22	26	34	17

(v)

Class-Interval	19.5 - 25.5	26.5 - 32.5	33.5 - 39.5	40.5 - 46.5	47.5 - 53.5
Frequency	49	29	25	39	39

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

a) 40 - 46 , 46 - 52 , 52 - 58...
b) 43 - 49 , 50 - 56 , 57 - 63,...
c) 22 - 28 , 28 - 34 , 34 - 40,...
d) 21.5 - 28.5 , 28.5 - 35.5 , 35.5 - 42.5...
e) 22 - 28 , 29 - 35 , 36 - 42,...

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

39. A histogram consists of

(i) rectangles (ii) triangles (iii) squares (iv) sectors

40. The width of the rectangles in a histogram represents

(i) frequency of the class (ii) mid values of the class (iii) class interval (iv) number of classes

41. In a histogram

(i) the length and width of each rectangle are in proportion (ii) the lengths of all rectangles are equal

(iii) the width of all rectangles are equal (iv) the lengths and widths of all rectangles are equal

42. The frequency polygon is one drawn using

(i) end points of classes and frequencies (ii) mid point of classes and frequencies

(iii) lower boundaries of classes and greater than cumulative frequencies

(iv) upper boundaries of classes and cumulative frequencies

43. Less than cumulative curves are drawn using

(i) lower boundaries of classes and greater than cumulative frequencies

(ii) upper boundaries of classes and less than cumulative frequencies

(iii) lower boundaries of classes and less than cumulative frequencies

(iv) mid values of classes and less than cumulative frequencies

44. Greater than cumulative curves are drawn using

(i) lower boundaries of classes and greater than cumulative frequencies

(ii) upper boundaries of classes and less than cumulative frequencies

(iii) mid values of classes and greater than cumulative frequencies

(iv) upper boundaries of classes and greater than cumulative frequencies

Assignment Key

1) (i)	2) (iv)	3) (iii)	4) (i)	5) (i)	6) (i)
7) (ii)	8) (v)	9) (v)	10) (iv)	11) (i)	12) (v)
13) (i)	14) (iii)	15) (ii)	16) (iv)	17) (ii)	18) (iv)
19) (ii)	20) (iv)	21) (v)	22) (iv)	23) (iv)	24) (ii)
25) (ii)	26) (i)	27) (ii)	28) (iii)	29) (ii)	30) (iii)
31) (iii)	32) (i)	33) (i)	34) (iii)	35) (v)	36) (v)
37) (i)	38) (i)	39) (i)	40) (iii)	41) (iii)	42) (ii)
43) (ii)	44) (i)				