EduSahara™ Assignment

Name : Cumulative Frequency

Chapter : Statistics

Grade : SSC Grade X

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1. Construct a frequency distribution table from the following cumulative frequency distribution

Class-Interval	Cumulative Frequency
25 - 35	5
36 - 46	17
47 - 57	22
58 - 68	29
69 - 79	43
80 - 90	49
91 - 101	57

(i)

Class-Interval	25 - 35	36 - 46	47 - 57	58 - 68	69 - 79	80 - 90	91 - 101
Frequency	5	12	5	2	14	6	8

(ii)

Class-Interval	25 - 35	36 - 46	47 - 57	58 - 68	69 - 79	80 - 90	91 - 101
Frequency	5	12	2	7	14	6	8

(iii)

Class-Interval	25 - 35	36 - 46	47 - 57	58 - 68	69 - 79	80 - 90	91 - 101
Frequency	5	8	5	7	14	6	12

(iv)

Class-Interval	25 - 35	36 - 46	47 - 57	58 - 68	69 - 79	80 - 90	91 - 101
Frequency	5	5	12	7	14	6	8

(v)

Class-Interval	25 - 35	36 - 46	47 - 57	58 - 68	69 - 79	80 - 90	91 - 101
Frequency	5	12	5	7	14	6	8

2. Construct a frequency distribution table from the following cumulative frequency distribution

Class-Interval	Cumulative Frequency
17 - 27	5
27 - 37	20
37 - 47	26
47 - 57	34
57 - 67	42

(i)

Class-Interval	17 - 27	27 - 37	37 - 47	47 - 57	57 - 67
Frequency	5	12	6	8	8

(ii)

Class-Interval	17 - 27	27 - 37	37 - 47	47 - 57	57 - 67
Frequency	5	15	3	8	8

(iii)

Class-Interval	17 - 27	27 - 37	37 - 47	47 - 57	57 - 67
Frequency	5	8	6	8	15

(iv)

Class-Interval	17 - 27	27 - 37	37 - 47	47 - 57	57 - 67
Frequency	5	15	6	8	8

(v)

Class-Interval	17 - 27	27 - 37	37 - 47	47 - 57	57 - 67
Frequency	5	6	15	8	8

3. Following are the ages (in years) of patients getting medical treatment in a hospital. Identify the cumulative frequency of the given grouped data.

Age (in years)	20 - 30	31 - 41	42 - 52	53 - 63	64 - 74
No. of Patients	22	42	31	62	38

(i)

Age (in years)	**Cumulative Frequency**
20 - 30	22
31 - 41	66
42 - 52	97
53 - 63	159
64 - 74	197

(ii)

Age (in years)	**Cumulative Frequency**
20 - 30	22
31 - 41	64
42 - 52	98
53 - 63	160
64 - 74	198

(iii)

Age (in years)	**Cumulative Frequency**
20 - 30	22
31 - 41	53
42 - 52	95
53 - 63	157
64 - 74	195

(iv)

Age (in years)	**Cumulative Frequency**
20 - 30	22
31 - 41	64
42 - 52	95
53 - 63	157
64 - 74	195

(v)

Age (in years)	**Cumulative Frequency**
20 - 30	22
31 - 41	60
42 - 52	91
53 - 63	153
64 - 74	195

4. Following are the ages (in years) of patients getting medical treatment in a hospital. Identify the cumulative frequency of the given grouped data.

Age (in years)	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60
No. of Patients	82	82	48	37	37

(i)

Age (in years)	**Cumulative Frequency**
10 - 20	82
20 - 30	164
30 - 40	215
40 - 50	252
50 - 60	289

(ii)

Age (in years)	**Cumulative Frequency**
10 - 20	82
20 - 30	164
30 - 40	212
40 - 50	249
50 - 60	286

(iii)

Age (in years)	**Cumulative Frequency**
10 - 20	82
20 - 30	130
30 - 40	212
40 - 50	249
50 - 60	286

(iv)

Age (in years)	**Cumulative Frequency**
10 - 20	82
20 - 30	167
30 - 40	215
40 - 50	252
50 - 60	289

(v)

Age (in years)	**Cumulative Frequency**
10 - 20	82
20 - 30	119
30 - 40	167
40 - 50	204
50 - 60	286

5. Following are the daily wages (in rupees) of labourers working in a factory. Identify the cumulative frequency of the given grouped data.

Wages (in rupees)	300 - 320	321 - 341	342 - 362	363 - 383	384 - 404	405 - 425
Labourers	15	19	9	6	8	3

(i)

Wages (in rupees)	**Cumulative Frequency**
300 - 320	15
321 - 341	34
342 - 362	43
363 - 383	49
384 - 404	57
405 - 425	60

(ii)

Wages (in rupees)	**Cumulative Frequency**
300 - 320	15
321 - 341	34
342 - 362	38
363 - 383	44
384 - 404	52
405 - 425	55

(iii)

Wages (in rupees)	**Cumulative Frequency**
300 - 320	15
321 - 341	18
342 - 362	27
363 - 383	33
384 - 404	41
405 - 425	60

(iv)

Wages (in rupees)	**Cumulative Frequency**
300 - 320	15
321 - 341	24
342 - 362	43
363 - 383	49
384 - 404	57
405 - 425	60

(v)

Wages (in rupees)	**Cumulative Frequency**
300 - 320	15
321 - 341	34
342 - 362	43
363 - 383	53
384 - 404	61
405 - 425	64

6. Following are the daily wages (in rupees) of labourers working in a factory. Identify the cumulative frequency of the given grouped data.

Wages (in rupees)	200 - 230	230 - 260	260 - 290	290 - 320	320 - 350	350 - 380
Labourers	18	14	18	19	12	11

(i)

Wages (in rupees)	**Cumulative Frequency**
200 - 230	18
230 - 260	32
260 - 290	50
290 - 320	69
320 - 350	81
350 - 380	92

(ii)

Wages (in rupees)	**Cumulative Frequency**
200 - 230	18
230 - 260	32
260 - 290	53
290 - 320	72
320 - 350	84
350 - 380	95

(iii)

Wages (in rupees)	**Cumulative Frequency**
200 - 230	18
230 - 260	29
260 - 290	47
290 - 320	66
320 - 350	78
350 - 380	92

(iv)

Wages (in rupees)	**Cumulative Frequency**
200 - 230	18
230 - 260	36
260 - 290	50
290 - 320	69
320 - 350	81
350 - 380	92

(v)

Wages (in rupees)	**Cumulative Frequency**
200 - 230	18
230 - 260	32
260 - 290	50
290 - 320	73
320 - 350	85
350 - 380	96

Identify the cumulative frequency of the given grouped data.

7.

class interval	13 - 22	23 - 32	33 - 42	43 - 52	53 - 62	63 - 72	73 - 82	83 - 92
frequency	19	16	11	23	13	16	6	14

(i)

class interval	Cumulative Frequency
13 - 22	19
23 - 32	35
33 - 42	58
43 - 52	69
53 - 62	82
63 - 72	98
73 - 82	104
83 - 92	118

(ii)

class interval	Cumulative Frequency
13 - 22	19
23 - 32	35
33 - 42	46
43 - 52	69
53 - 62	82
63 - 72	98
73 - 82	104
83 - 92	118

(iii)

class interval	Cumulative Frequency
13 - 22	19
23 - 32	33
33 - 42	44
43 - 52	67
53 - 62	80
63 - 72	96
73 - 82	102
83 - 92	118

(iv)

class interval	Cumulative Frequency
13 - 22	19
23 - 32	35
33 - 42	44
43 - 52	67
53 - 62	80
63 - 72	96
73 - 82	102
83 - 92	116

(v)

class interval	Cumulative Frequency
13 - 22	19
23 - 32	35
33 - 42	46
43 - 52	69
53 - 62	78
63 - 72	94
73 - 82	100
83 - 92	114

8. Identify the cumulative frequency of the given grouped data.

class interval	30 - 39	39 - 48	48 - 57	57 - 66	66 - 75
frequency	8	19	11	11	12

(i)

class interval	Cumulative Frequency
30 - 39	8
39 - 48	20
48 - 57	31
57 - 66	42
66 - 75	61

(ii)

class interval	Cumulative Frequency
30 - 39	8
39 - 48	27
48 - 57	36
57 - 66	47
66 - 75	59

(iii)

class interval	Cumulative Frequency
30 - 39	8
39 - 48	19
48 - 57	38
57 - 66	49
66 - 75	61

(iv)

class interval	Cumulative Frequency
30 - 39	8
39 - 48	27
48 - 57	38
57 - 66	49
66 - 75	61

(v)

class interval	Cumulative Frequency
30 - 39	8
39 - 48	24
48 - 57	35
57 - 66	46
66 - 75	58

9. Find the cumulative frequency of class 49-58 .

Class-Interval	19 - 28	29 - 38	39 - 48	49 - 58	59 - 68	69 - 78	79 - 88
Frequency	16	16	13	8	14	16	16

(i) 54 (ii) 50 (iii) 56 (iv) 52 (v) 53

10. Find the cumulative frequency of class 46-54 .

Class-Interval	38 - 46	46 - 54	54 - 62	62 - 70	70 - 78	78 - 86	86 - 94
Frequency	22	5	7	7	10	13	24

(i) 25 (ii) 29 (iii) 27 (iv) 26 (v) 28

11. The following cumulative frequency table represents which of the following frequency distribution

Class-Interval	Cumulative Frequency
28 - 33	8
33 - 38	15
38 - 43	25
43 - 48	34
48 - 53	50
53 - 58	58
58 - 63	74

(i)

Class-Interval	28 - 33	33 - 38	38 - 43	43 - 48	48 - 53	53 - 58	58 - 63
Frequency	8	10	7	9	16	8	16

(ii)

Class-Interval	28 - 33	33 - 38	38 - 43	43 - 48	48 - 53	53 - 58	58 - 63
Frequency	8	7	10	9	16	8	16

(iii)

Class-Interval	28 - 33	33 - 38	38 - 43	43 - 48	48 - 53	53 - 58	58 - 63
Frequency	8	16	10	9	16	8	7

(iv)

Class-Interval	28 - 33	33 - 38	38 - 43	43 - 48	48 - 53	53 - 58	58 - 63
Frequency	8	7	14	9	16	8	16

(v)

Class-Interval	28 - 33	33 - 38	38 - 43	43 - 48	48 - 53	53 - 58	58 - 63
Frequency	8	7	10	11	16	8	16

12. The following cumulative frequency table represents which of the following frequency distribution

Class-Interval	Cumulative Frequency
34 - 41	65
41 - 48	59
48 - 55	51
55 - 62	39
62 - 69	28
69 - 76	22
76 - 83	6

(i)

Class-Interval	34 - 41	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
Frequency	6	8	16	11	6	16	6

(ii)

Class-Interval	34 - 41	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
Frequency	6	8	12	11	6	16	6

(iii)

Class-Interval	34 - 41	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
Frequency	6	12	8	11	6	16	6

(iv)

Class-Interval	34 - 41	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
Frequency	6	8	12	13	6	16	6

(v)

Class-Interval	34 - 41	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
Frequency	6	6	12	11	6	16	8

13. During the medical check-up of 37 students of a class, their weights in kgs are recorded as follows. Identify the number of students whose weight is less than 50 kg

Class-Interval	32 - 38	38 - 44	44 - 50	50 - 56
Frequency	8	9	8	12

(i) 26 (ii) 22 (iii) 25 (iv) 24 (v) 27

14. During the medical check-up of 40 students of a class, their weights in kgs are recorded as follows. Identify the number of students whose weight is more than 40 kg

Class-Interval	32 - 40	40 - 48	48 - 56	56 - 64	64 - 72
Frequency	7	7	7	12	7

(i) 32 (ii) 33 (iii) 30 (iv) 34 (v) 36

15. Identify the class interval table for the given less than cumulative frequency table

Class-Interval	**Cumulative Frequency**
34 - 40	6
40 - 46	21
46 - 52	34
52 - 58	48
58 - 64	53
64 - 70	60

(i)

Class-Interval	34 - 40	40 - 46	46 - 52	52 - 58	58 - 64	64 - 70
Frequency	6	15	15	14	5	7

(ii)

Class-Interval	34 - 40	40 - 46	46 - 52	52 - 58	58 - 64	64 - 70
Frequency	6	7	13	14	5	15

(iii)

Class-Interval	34 - 40	40 - 46	46 - 52	52 - 58	58 - 64	64 - 70
Frequency	6	13	15	14	5	7

(iv)

Class-Interval	34 - 40	40 - 46	46 - 52	52 - 58	58 - 64	64 - 70
Frequency	6	15	13	14	5	7

(v)

Class-Interval	34 - 40	40 - 46	46 - 52	52 - 58	58 - 64	64 - 70
Frequency	6	15	13	16	5	7

16. Identify the class interval table for the given greater than cumulative frequency table

Class-Interval	**Cumulative Frequency**
17 - 24	62
24 - 31	55
31 - 38	40
38 - 45	31
45 - 52	22
52 - 59	11

(i)

Class-Interval	17 - 24	24 - 31	31 - 38	38 - 45	45 - 52	52 - 59
Frequency	7	15	9	6	11	11

(ii)

Class-Interval	17 - 24	24 - 31	31 - 38	38 - 45	45 - 52	52 - 59
Frequency	7	11	9	9	11	15

(iii)

Class-Interval	17 - 24	24 - 31	31 - 38	38 - 45	45 - 52	52 - 59
Frequency	7	15	9	9	11	11

(iv)

Class-Interval	17 - 24	24 - 31	31 - 38	38 - 45	45 - 52	52 - 59
Frequency	7	9	15	9	11	11

(v)

Class-Interval	17 - 24	24 - 31	31 - 38	38 - 45	45 - 52	52 - 59
Frequency	7	15	7	9	11	11

Assignment Key

1) (v)	2) (iv)	3) (iv)	4) (ii)	5) (i)	6) (i)
7) (ii)	8) (iv)	9) (v)	10) (iii)	11) (ii)	12) (ii)
13) (iii)	14) (ii)	15) (iv)	16) (iii)		

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