ICSE Class 10 Maths Selina Solutions Chapter 23: ICSE Class 10 Maths Selina Solutions for Chapter 23 which covers Graphical Representation including Histograms and Ogives provide a detailed guide to understanding these essential concepts. Histograms are used to represent frequency distributions of continuous data through bars, while Ogives are cumulative frequency graphs that show how data accumulates over a range of values.

By working through these solutions, students gain valuable skills in data visualization and analysis, important for both exams and practical applications.

ICSE Class 10 Maths Selina Solutions Chapter 23 Overview

ICSE Class 10 Maths Selina Solutions for Chapter 23, which focuses on Graphical Representation including Histograms and Ogives are prepared by the subject experts from Physics Wallah.

They include detailed, step-by-step instructions and examples to help students understand how to represent and analyze data visually. With this expert guidance, students can gain a clear understanding of these graphical tools, enhancing their ability to interpret data accurately and perform well in their exams.

ICSE Class 10 Maths Selina Solutions Chapter 23 PDF

The PDF link for ICSE Class 10 Maths Selina Solutions Chapter 23 which covers Graphical Representation including Histograms and Ogives, is available below.

Students are advised to prepare using the ICSE Class 10 Maths Selina Solutions for Chapter 23 before the examinations to improve their performance.

ICSE Class 10 Maths Selina Solutions Chapter 23 PDF

ICSE Class 10 Maths Selina Solutions Chapter 23 Graphical Representation (Histograms and Ogives)

Below we have provided ICSE Class 10 Maths Selina Solutions Chapter 23 Graphical Representation (Histograms and Ogives) for the ease of the students –

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1. Draw histograms for the following frequency distributions:

(i)

Class Interval	**0-10**	**10-20**	**20-30**	**30-40**	**40-50**	**50-60**
Frequency	**12**	**20**	**26**	**18**	**10**	**6**

(ii)

Class Interval	**10-16**	**16-22**	**22-28**	**28-34**	**34-40**
Frequency	**15**	**23**	**30**	**20**	**16**

(iii)

Class Interval	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**
Frequency	**24**	**16**	**09**	**15**	**20**

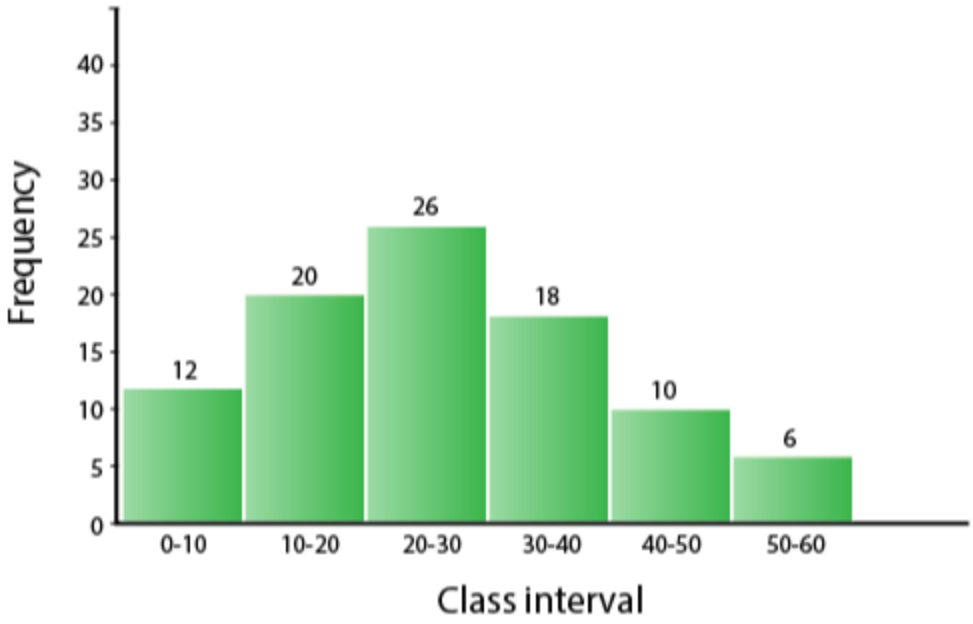
(iv)

Class Marks	**16**	**24**	**32**	**40**	**48**	**56**	**64**
Frequency	**8**	**12**	**15**	**18**	**25**	**19**	**10**

Solution:

(i)

Class Interval	Frequency
0-10	12
10-20	20
20-30	26
30-40	18
40-50	10
50-60	06



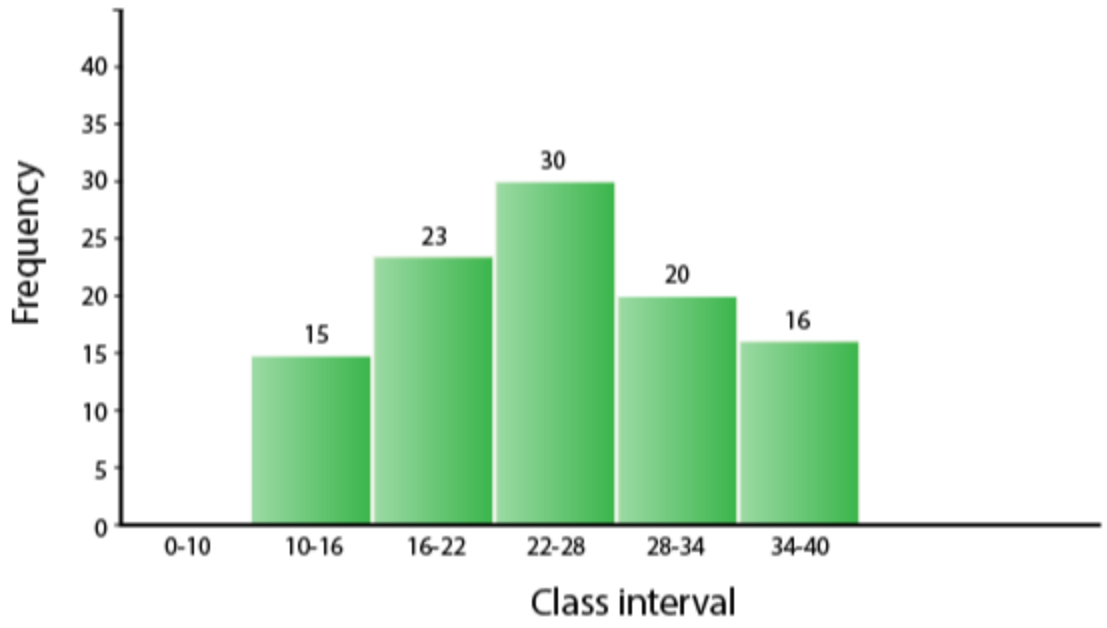
Steps of construction:

(a) Taking suitable scales, mark the class intervals on x-axis and the frequencies on y-axis.

(b) Construct rectangles with class intervals as bases and corresponding frequencies as heights.

(ii)

Class Interval	Frequency
10-16	15
16-22	23
22-28	30
28-34	20
34-40	16



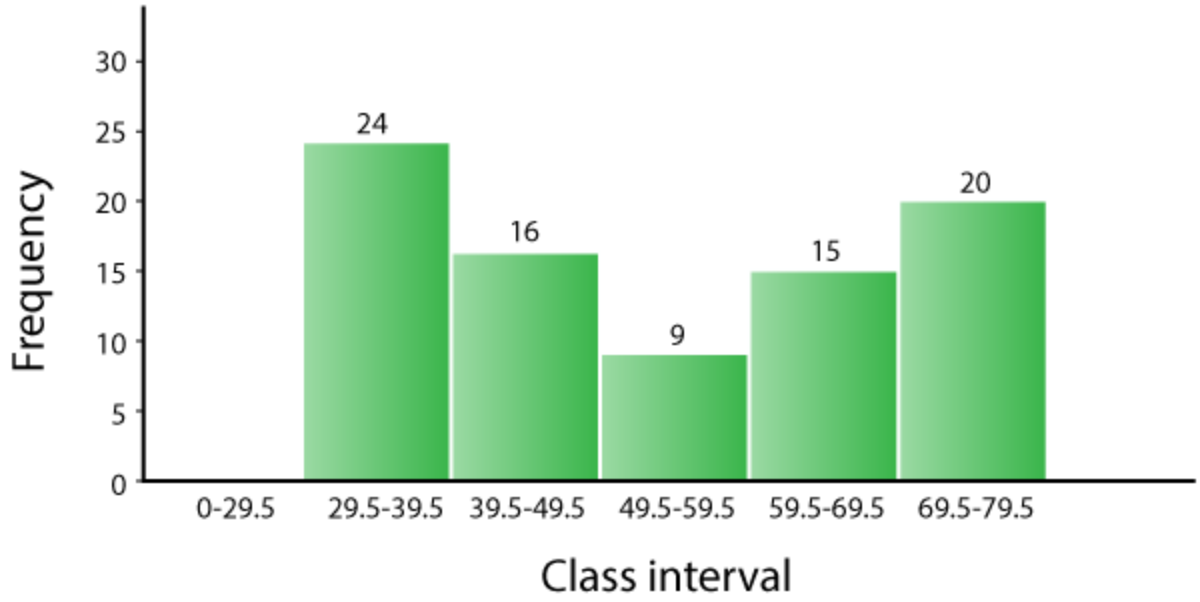
Steps of construction:

(a) Taking suitable scales, mark the class intervals on x-axis and frequency on y-axis.

(b) Construct rectangles with class intervals as bases and corresponding frequencies as heights.

(iii)

Class Interval (Inclusive form)	Class Interval (Exclusive Form)	Frequency
30-39	29.5-39.5	24
40-49	39.5-49.5	16
50-59	49.5-59.5	09
60-69	59.5-69.5	15
70-79	69.5-79.5	20



Steps of construction:

(a) Convert the data into exclusive form. [Here, adjustment factor = 0.5]

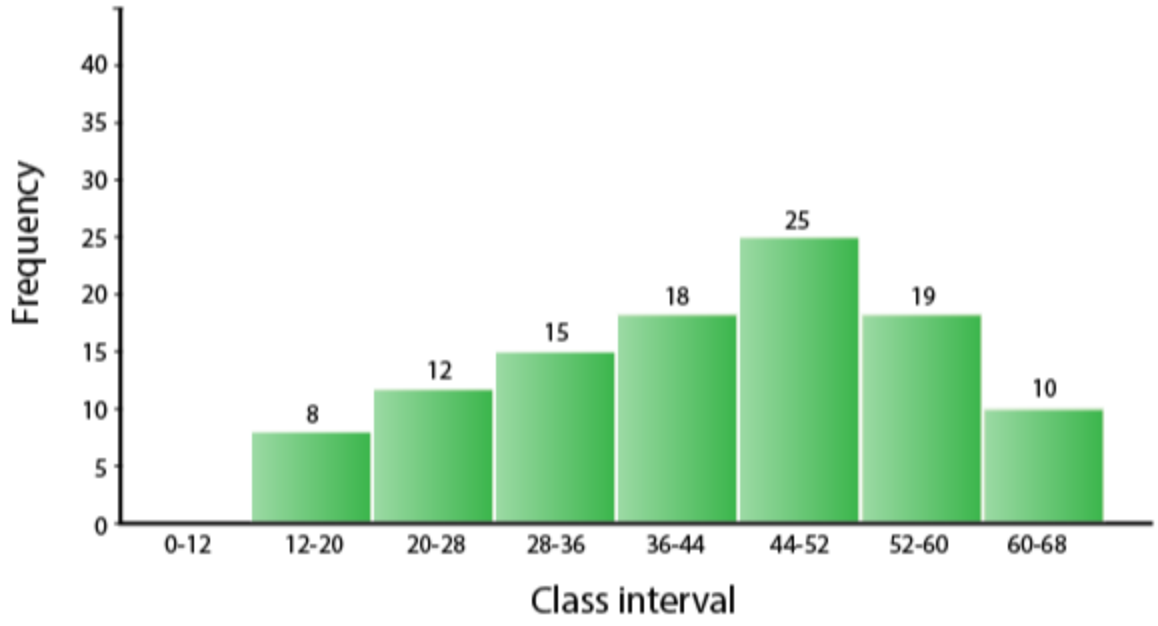
(b) Taking suitable scales, mark the class intervals on x-axis and the frequency on y-axis.

(c) Construct rectangles with class intervals as bases and corresponding frequencies as heights.

(iv)

From the given data:

Class Marks	Class Intervals	Frequency
16	12-20	08
24	20-28	12
32	28-36	15
40	36-44	18
48	44-52	25
56	52-60	19
64	60-68	10



Steps of construction:

(a) Convert the class marks into class intervals.

(b) Taking suitable scales, mark class intervals on x-axis and frequency on y-axis.

(c) Construct rectangles with class intervals as bases and corresponding frequencies as heights.

2. Draw cumulative frequency curve (ogive) for each of the following distributions:

(i)

Class Interval	**10-15**	**15-20**	**20-25**	**25-30**	**30-45**	**35-40**
Frequency	**10**	**15**	**17**	**12**	**10**	**08**

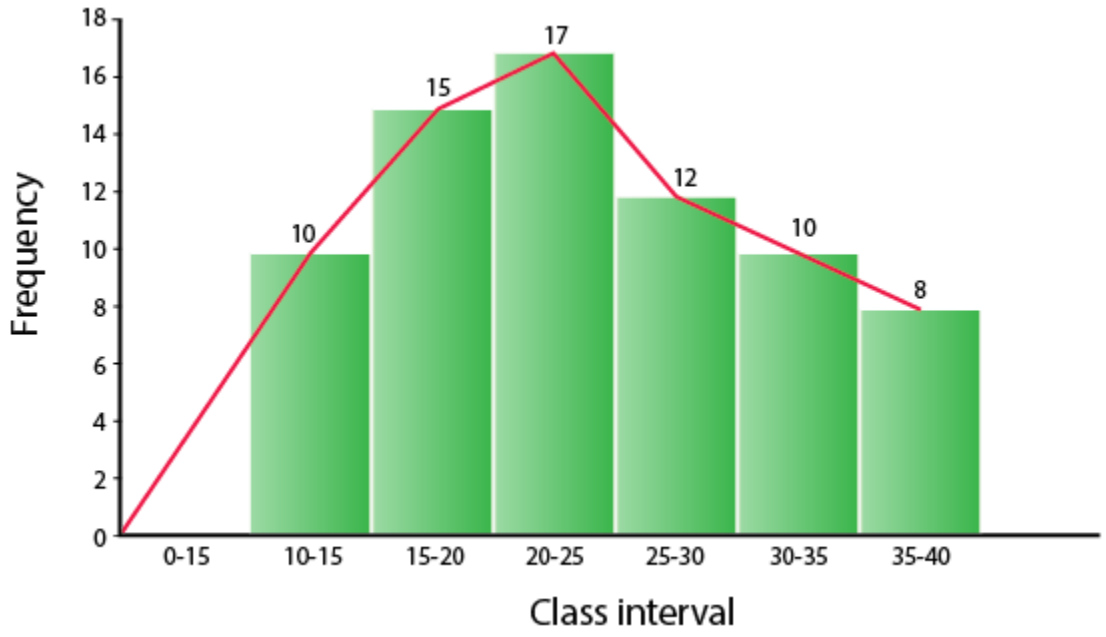
(ii)

Class Interval	**10-19**	**20-29**	**30-39**	**40-49**	**50-59**
Frequency	**23**	**16**	**15**	**20**	**12**

Solution:

(i)

Class Interval	Frequency
10-15	10
15-20	15
20-25	17
25-30	12
30-35	10
35-40	08



Steps of construction:

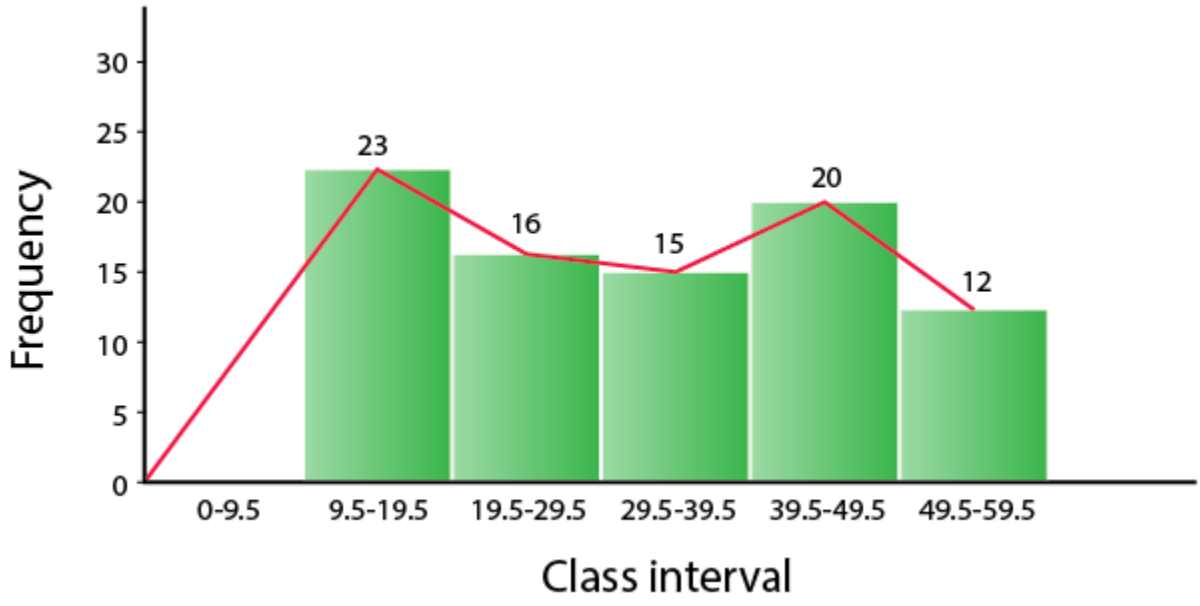
(a) Taking suitable scales, mark the class intervals on x-axis and the frequencies on y-axis.

(b) Construct rectangles with class intervals as bases and corresponding frequencies as heights.

(c) Join the mid-points of the rectangle to obtain the ogive.

(ii)

Class Interval (Inclusive)	Class Interval (Exclusive)	Frequency	Cumulative Frequency
10-19	9.5-19.5	23	23
20-29	19.5-29.5	16	39
30-39	29.5-39.5	15	54
40-49	39.5-49.5	20	74
50-59	49.5-59.5	12	86
		Total	86



Steps of construction:

(a) Convert the data into exclusive form. [Here, adjustment factor = 0.5]

(b) Taking suitable scales, mark the class intervals on x-axis and the frequencies on y-axis.

(c) Construct rectangles with class intervals as bases and corresponding frequencies as heights.

(d) Join the mid-points of the rectangle to obtain the ogive.

3. Draw an ogive for each of the following distributions:

(i)

Marks Obtained	**less than 10**	**less than 20**	**less than30**	**less than 40**	**less than 50**
No. of Students	**8**	**25**	**38**	**50**	**67**

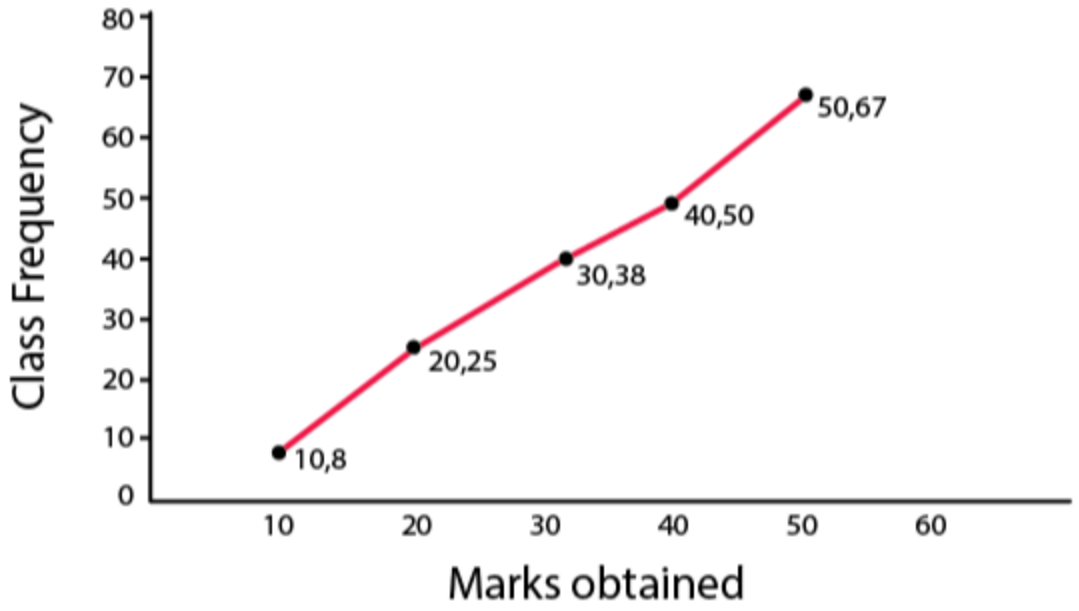
(ii)

Age in years (less than)	**10**	**20**	**30**	**40**	**50**	**60**	**70**
Cumulative Frequency	**0**	**17**	**32**	**37**	**53**	**58**	**65**

Solution:

(i)

Marks Obtained	No. of students (c.f.)
less than 10	8
less than 20	25
less than 30	38
less than 40	50
less than 50	67



Steps Of construction:

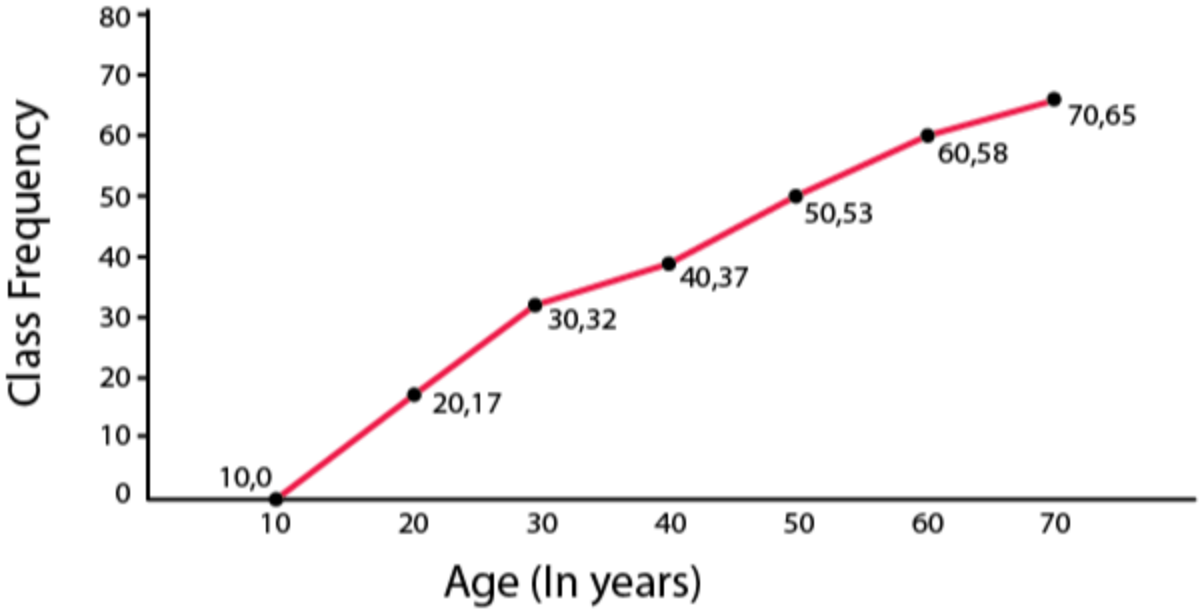
(a) Plot the points (10, 8), (20, 25), (30, 38), (40, 50) and (50, 67) on the graph.

(b) Join them with free hand to obtain an ogive.

(ii)

Age in years (less than)	Cumulative Frequency
10	0
20	17
30	32
40	37
50	53
60	58

70 65



Steps Of construction:

(a) Plot the points (10, 0), (20, 17), (30, 32), (40, 37), (50, 53), (60, 58) and (70, 65) on the graph.

(b) Join them with free hand to obtain an ogive.

4. Construct a frequency distribution table for the number given below, using the class intervals 21-30, 31-40 … etc.

75, 67, 57, 50, 26, 33, 44, 58, 67, 75, 78, 43, 41, 31, 21, 32, 40, 62, 54, 69, 48, 47, 51, 38, 39, 43, 61, 63, 68, 53, 56, 49, 59, 37, 40, 68, 23, 28, 36, 47

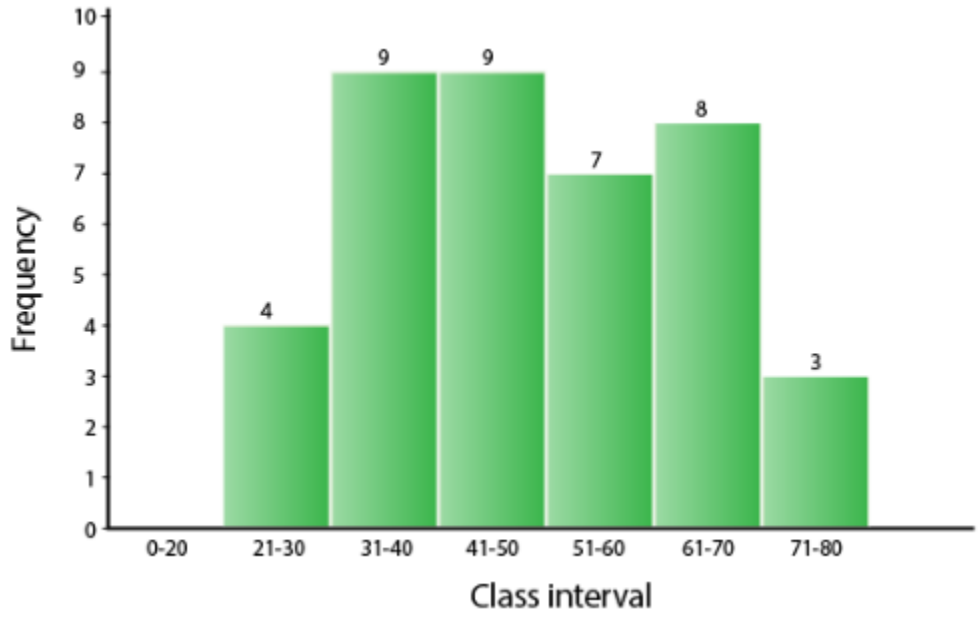
Use the table obtained to draw:

(i) a histogram (ii) an ogive

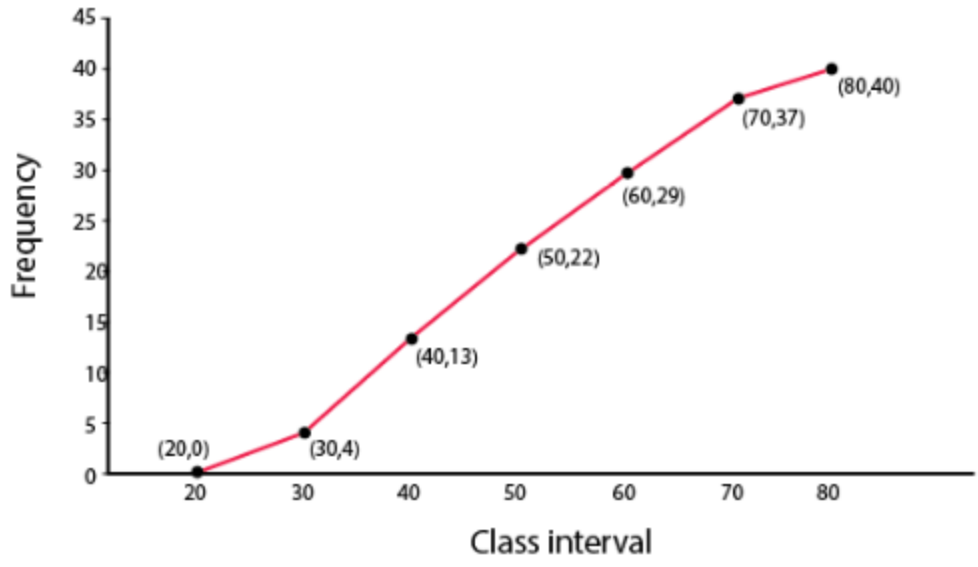
Solution:

Class Interval	Tally	Frequency	c.f.
21 - 30	𝍸	4	4
31 - 40	𝍸 𝍸	9	13
41 - 50	𝍸 𝍸	9	22
51 - 60	𝍸	7	29
61 - 70	𝍸	8	37
71 - 80	𝍸	3	40

(i)



(ii)



Plot the points (30,4), (40,13), (50,22), (60,29), (70,37) and (80,40) on the graph and join them with free hand to obtain an ogive.

Benefits of ICSE Class 10 Maths Selina Solutions Chapter 23

- **Enhanced Understanding:** The solutions provide clear and detailed explanations of how to construct and interpret histograms and ogives helping students grasp these graphical tools effectively.
- **Step-by-Step Guidance:** Each solution includes step-by-step instructions making complex concepts more accessible and easier to follow.
- **Improved Problem-Solving Skills:** The practice problems and solutions help students develop strong problem-solving skills related to data representation, preparing them for exam questions and real-life applications.
- **Confidence Building:** With thorough explanations and practice students can build confidence in their ability to handle graphical representation problems leading to better performance in exams.

At Physics Wallah, we provide the best online coaching for Class 10 focusing on Online coaching class 10. Our courses are taught by well-known instructors, dedicated to enhancing conceptual understanding and problem-solving skills.