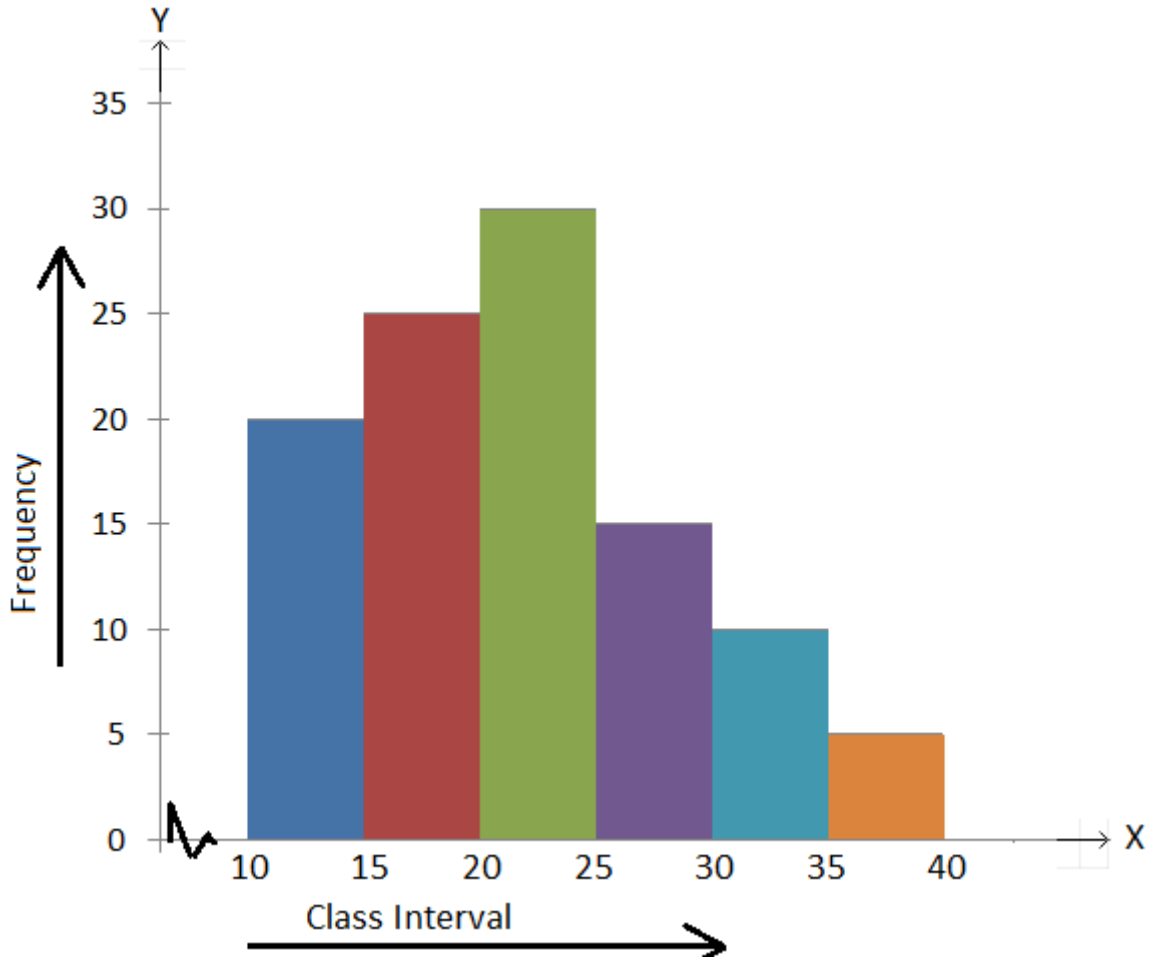


HISTOGRAM AND QUANTILES

ASSIGNMENTS

q.1 The histogram for a frequency distribution is given below.



Answer the following.

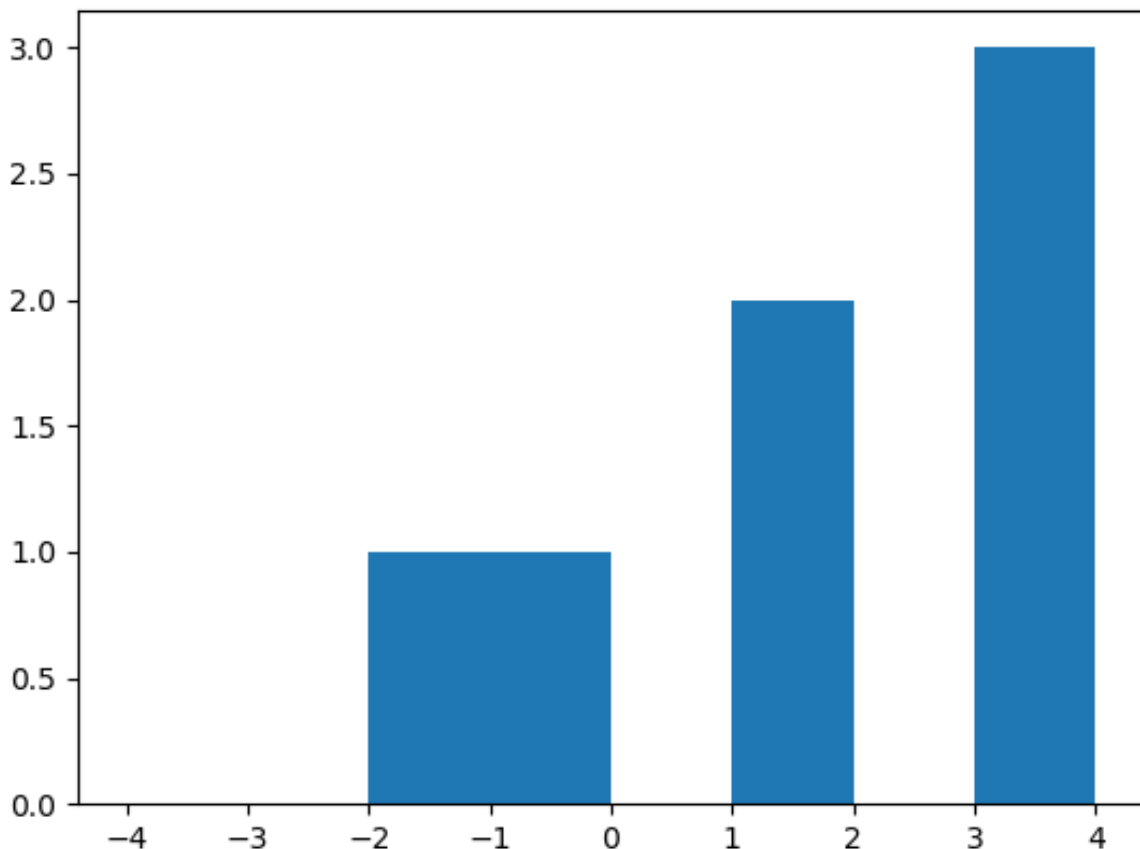
- (i) What is the frequency of the class interval 15 – 20?
- (ii) What is the class intervals having the greatest frequency?
- (iii) What is the cumulative frequency of the class interval 25 – 30?
- (iv) Construct a short frequency table of the distribution.
- (v) Construct a cumulative frequency table of the distribution.

Q.2 Draw histogram programmatically in python with following frequency of scores 1,1,2,2,2,2,3,3,3,3,4,4,5 with range (bins) starting from 1 to 5.

Q.3 Below is a grouped frequency table of the heights of plants growing in a garden. Construct a histogram of the data.

| Height, h (cm) | Frequency |
|------------------|-----------|
| $0 < h \leq 10$ | 3 |
| $10 < h \leq 20$ | 2 |
| $20 < h \leq 24$ | 4 |
| $24 < h \leq 30$ | 5 |
| $30 < h \leq 50$ | 1 |

Q.4 Draw the following histogram using python program.



Q.5 Draw the histogram for population_ages = [22, 55, 62, 45, 21, 22, 34, 42, 42, 4, 99, 102, 110, 120, 121, 122, 130, 111, 115, 112, 80, 75, 65, 54, 44, 43, 42, 48] and bins = [0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130] through python program with suitable title and label.

Q.6 How to choose bins in Matplotlib histogram?

Q.7 Write a Program in python to find 0.75 quantile of series[1, 10, 20, 40, 60, 70, 80, 90, 100]

Q.8 Solve the question no 7 using solution steps.

(Steps given in program part of histogram and quantile)

PYTHON.MYKVS.IN