

no. of students per teacher	no. of states / UT $f_i$	class Marks $x_i$	$u_i = \frac{x_i - a}{h}$	$f_i u_i$
15-20	3	17.5	-3	-9
20-25	8	22.5	-2	-16
25-30	$f_0$ 9	27.5	-1	-9
<span style="border: 1px solid red; padding: 2px;">30-35</span>	$f_1$ 10	32.5 = a	0	0
35-40	$f_2$ 3	37.5	1	3
40-45	0	42.5	2	0
45-50	0	47.5	3	0
50-55	2	52.5	4	8
	<u>35</u>			<u>-23</u>

Modal class 30-35,  $l = 30$ ,  $h = 5$

$$\text{Mode} = l + \frac{f_1 - f_0}{2f_1 - f_0 - f_2} \times h$$

$$= 30 + \frac{10 - 9}{20 - 9 - 3} \times 5$$

$$= 30 + \frac{1}{8} \times 5$$

$$= 30 + 0.6$$

$$= 30.6$$

$$\text{Mean} = a + \frac{\sum f_i u_i}{\sum f_i} \times h$$

$$= 32.5 + \frac{-23}{35} \times 5$$

$$= 32.5 - 3.28$$

$$= 29.22$$