

Appendix-I
Calculation of Reliability of coefficient- College of Education, Phaltnan.

Class Intervals	240-259	260-279	280-299	300-319	320-339	340-359	360-379	380-399	f	y'	f y'	f y' ²	ΣXY
381 - 400							20	25	2	5	10	50	45
							1	1					
							20	25					
361-380					8	12			4	4	16	64	44
					1	3							
					8								
341-360				3	6				4	3	12	36	21
				1	3								
				3	18								
321-340			0	2	4				15	2	30	60	42
			1	7	7								
			0	14	28								
301-320		-1	0	1					13	1	13	13	2
		1	9	3									
		-1	0	3									
281-300		0	0						22	0	0	0	0
		13	9										
		0	0										
261-280	2	1	0						10	-1	-10	10	17
	8	1	1										
	16	1	0										
F	8	15	20	11	11	3	1	1	70	-	71	233	171
X'	-2	-1	0	1	2	3	4	5					
f X'	-16	-15	0	11	22	9	4	5	20				
f X' ²	32	15	0	11	44	27	16	25	170				
ΣX'Y'	16	0	0	20	54	36	20	25	171				

$$r = \frac{\sum x' y' - C_x C_y}{\sigma_x \cdot \sigma_y}$$

1) Find out the values of C_x and C_y

$$C_x = \frac{\sum fx'}{N} = 0.2857$$

$$C_y = \frac{\sum fy'}{N} = 1.0143$$

2) Find out the values of σ_x and σ_y

$$\sigma_x = \sqrt{\frac{\sum fx'^2}{N} - C_x^2} = 1.532$$

$$\sigma_y = \sqrt{\frac{\sum fy'^2}{N} - C_y^2} = 1.517$$

3) Find out the value of

$$\frac{\sum x' y'}{N} = 2.443$$

$$r = \frac{2.443 - (0.2857) \times (1.0143)}{(1.532 \times 1.517)} = 0.92$$

Appendix - J
Calculation of Reliability of coefficient- Yashwantrao Chavan Maharashtra Open University, Nasik.

Class Intervals	256-265	266-275	276-285	286-295	296-305	306-315	316-325	326-335	336-345	346-355	f	y'	fy'	fy' ²	ΣXY
346-355									3	4	4	1	4	4	15
									1	3					
									0	12					
336-345								0	0		6	0	0	0	0
								2	4						
								0	0						
326-335								-2			3	-1	-3	3	-6
								3							
								-6							
316-325						0	-2				5	-2	-10	20	-6
						2	3								
						0	-6								
306-315					3	0					5	-3	-15	45	6
					2	3									
					6	0									
296-305				8	4	0					5	-4	-20	80	24
				2	2	1									
				16	8	0									
286-295				10							2	-5	-10	50	20
				2											
				20											
276-285	24	18	1	12							4	-6	-24	144	78
	2	1	1												
	48	18													
266-275	28										3	-7	-21	147	84
	3														
	84														
256-265	40										3	-8	-24	192	120
	3														
	120														
F	3	5	1	5	4	6	3	5	5	3	40	-	-123	685	335
X'	-5	-4	-3	-2	-1	0	1	2	3	4					
fX'	-15	-20	-3	-10	-4	0	3	10	15	12					
fX' ²	75	80	9	20	4	0	3	20	45	48					
ΣX'Y'	120	132	18	48	14	0	-6	-6	3	12	335				

$$r = \frac{\sum x' y' - C_x C_y}{\sigma_x \cdot \sigma_y}$$

1) Find out the values of C_x and C_y

$$C_x = \frac{\sum fx'}{N} = -0.3$$

$$C_y = \frac{\sum fy'}{N} = -3.075$$

2) Find out the values of σ_x and σ_y

$$\sigma_x = \sqrt{\frac{\sum fx'^2}{N} - C_x^2} = 2.74$$

$$\sigma_y = \sqrt{\frac{\sum fy'^2}{N} - C_y^2} = 2.769$$

3) Find out the value of

$$\frac{\sum x' y'}{N} = 8.375$$

$$r = \frac{8.375 - (-0.3) \times (-3.075)}{(2.74 \times 2.769)} = 0.878$$