Appendix- F

Calculation of Reliability of coefficient- Azad College of Education, Satara.

Class Intervals	200-225	226-250	251- 275	276-300	301-325	326-350	351-375	376-400	401-425	426-450	f (y)	y'	f y'	f y'^{2}	ΣXY
426 - 450										36 **4** 144	4	6	24	144	144
401-425								20 **6** 120	25 **14** 350		20	5	100	500	470
376-400								16 **16** 256	20 **1** 20		17	4	68	272	276
351-375		-6 **2** -12	-3 **1** -3			6 **1** 6	9 **14** 126				18	3	54	162	117
326 -350					2 **4** 8	4 **14** 56	6 **4** 24				22	2	44	88	88
301 -325				0 **1** 0	1 **19** 19	2 **2** 4					22	1	22	22	23
276 -300			0 **3** 0	0 **22** 0	0 **1** 0						26	0	0	0	0
251 - 275	3 **1** 3		1 **10** 10	0 **3** 0							14	-1	-14	14	13
226 - 250		4 **4** 16	2 **1** 2								05	-2	-10	20	18
200 - 225	9 **2** 18										02	-3	-6	18	18
F (X)	03	06	15	26	24	17	18	22	15	4	150	15	282	1240	1167
X'	-3	-2	-1	0	1	2	3	4	5	6	15				
f X'	-9	-12	-15	0	24	34	54	88	75	24	263				
f X' ^{2}	27	24	15	0	24	68	162	352	375	144	1191				
ΣX'Y'	21	4	9	0	27	66	150	376	370	144	1167				

$$r = \frac{\frac{\sum x'y'}{N} - C_x c_y}{6'x \cdot 6'y}$$

1) Find out the values of Cx and Cy

$$cx = \frac{\sum fx'}{N} = \frac{263}{150} = 1.75$$

$$Cy = \frac{\sum fy'}{N} = \frac{282}{150} = 1.88$$

2) Find out the values of x and y

$$6x' = \sqrt{\frac{\sum fx^2}{N} - C^2x} \qquad = \sqrt{\frac{1191}{150} - (1.75)^2}$$

$$= 2.20$$

$$\sigma_y = \sqrt{\frac{\sum fy'^2}{N} - Cy^2} \qquad = \sqrt{\frac{1240}{150} - (1.88)^2}$$

$$= 2.17$$

3) Find out the value of

$$\frac{\sum x'y'}{N} \qquad = \frac{1167}{150} = 7.78$$

$$r = \frac{7.78 - (1.75 \times 1.88)}{(2.20 \times 2.17)} = 0.94$$