fixed acidity -	- 1	0.19	0.32	0.034	0.38	-0.25	-0.26	0.48	-0.33	0.22	-0.086	- 1.0	
volatile acidity –	0.19	1	-0.36	-0.043	0.41	-0.33	-0.34	0.21	0.21	0.2	0.015	- 0.8	
citric acid -	0.32	-0.36	1	0.097	-0.054	0.14	0.18	0.1	-0.32	0.067	0.0048	- 0.6	
residual sugar –	0.034	-0.043	0.097	1	0.0073	0.34	0.41	0.55	-0.22	-0.06	-0.29	- 0.4	
chlorides –	0.38	0.41	-0.054	0.0073	1	-0.24	-0.26	0.57	0.089	0.38	-0.36	0.4	
sulfur dioxide –	-0.25	-0.33	0.14	0.34	-0.24	1	0.77	0.038	-0.11	-0.12	-0.2	- 0.2	
l sulfur dioxide –	-0.26	-0.34	0.18	0.41	-0.26	0.77	1	0.087	-0.24	-0.21	-0.33	- 0.0	
density –	0.48	0.21	0.1	0.55	0.57	0.038	0.087	1	-0.055	0.25	-0.66	0.2	
pH -	-0.33	0.21	-0.32	-0.22	0.089	-0.11	-0.24	-0.055	1	0.23	0.2	0.2	
sulphates –	0.22	0.2	0.067	-0.06	0.38	-0.12	-0.21	0.25	0.23	1	0.048	0.4	
alcohol –	-0.086	0.015	0.0048	-0.29	-0.36	-0.2	-0.33	-0.66	0.2	0.048	1	0.6	
	d acidity –	le acidity –	iitric acid –	ual sugar –	chlorides –	r dioxide –	r dioxide –	density –	- Hd	ulphates –	alcohol –		