

Sno	Hyper parameter (C)	R^2 when kernel="linear"	R^2 when kernel="rbf"	R^2 when kernel="poly"	R^2 when kernel="Sigmoid"
1	C=10	-0.1068	-0.125	-0.121	-0.122
2	C=100	0.043	-0.12	-0.084	-0.09
3	C=500	0.535	-0.101	0.071	0.0064
4	C=1000	0.794	-0.08	0.211	0.137
5	C=3000	0.858	0.019	0.66	0.498
6	C=5000	0.88	0.072	0.816	0.718
7	C=10000	0.898	0.235	0.82	0.855
8	C=20000	0.905	0.436	0.36	0.86

When linear kernel is applied & penalty (hyper parameter C is applied with value 20000) seems to be the best SVM model