True Model = LLL small error;——————————————————————————————————																																					
metric used AIC					7	metric used AIC						metric used AIC					7	metric used AIC								metric used AIC					7						
model selected GTF GGC TTG GTG TGG TGG GGG GGG GGG	0 46.2 0 9 0 8.7 0 15.3	0 10.3 0.2 0 0.2 0 0 0.1	3 4 0 0 6.8 0.4 0.8 0.2 0 0 0.8 0.3 0 0 0 0	0 0 0.1 0 0 0 0	0 0 0 0 0 0 0	0 model G	GG 46 LG 0 LG 7. GL 0.	0	3 0 7 8.3 5 1.2 0 6 0.9 2 0 0.1	0 1.1 0.5 0 0.3 0 0	0 0 0.1 0 0.1 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0 0	model selected GLL GLL GLL GLL GLL GLL GLL GLL GLL GL	0 47 0.1 6.9 0.1 7 0.1 4.2	0 12.2 0.8 0.3 0.8 0.1 0.2	3 0 9 1.1 0 1.6 0 0.1	1 0 2.9 1 0 1.4 0 0 0	0 0.6 0.8 0 0.5 0	0 0.1 0.2 0 0.4 0	0 0 0.1 0 0.2 0 0	model selected GGL LGG LGL GLL GLL GLL GLL GLL GLL GL	1 0 42.2 0.3 1.4 0.2 1.3 0.3 0.1	0 15.2 0.9 0.4 0.9 0.4 0.2	10 1.8 0.1 1.9 0.1 0.1	4 0 4.7 2.2 0 1.9 0.1 0.1	0 1.7 1.8 0 1.6 0.1 0	0 0.8 1.3 0.2 1.4 0 0.1	0 1 1.5 0 1.6 0 0	model selected GTF GGC TGC TGC TGC TGC GGG GGC	0 29.2 0.5 0.1 0.4 0.2 0	16.9 1.7 0.3 1.1 0.5 0.3	3 0 9.5 2.5 0.2 2.2 0.2 0.2	0 5.5 2.8 0.1 2.1 0 0	0 2.5 2 0 2.4 0.1 0.1	0 1.7 2.4 0 2 0 0	0 1.9 3.9 0 4.1 0 0
	metric used GCV						metric used GCV						metric used GCV						metric used GCV								metric used GCV										
model selected TTT ABS SELECTED TGT TGT TGT TGT TGT TGT TGT TGT TGT TG	1 0 53 0.4 11.5 0.3 11 0.1	2 0 2.4 0.2 0.3 0.2 0.2 0.2 0.2	3 4 0 0 0.1 0 0 0 0 0 0 0 0 0 0.1 0 0 0	5 0 0 0 0 0 0 0	6 0 0 0 0 0 0	0 model se	GG 54 LG 0. LG 10 GL 0.	3 0.3	3 0 0.4 0.2 0 0 0.2 0.1 3 0.1 0	4 0 0 0 0 0 0 0	5 0 0 0 0 0 0 0	6 0 0 0 0 0 0	7 0 0 0 0 0 0 0 0	GGG podel selected LGC GGL GGL GGL GLL GLL LLL	1 0 56.9 0.8 8.9 0.8 8.8 0.4	2 0 7 0.8 0.6 1.1 0.3 0.2	3 0 2.3 0.5 0.2 0.7 0.2 0.2	4 0 0.4 0.2 0 0.4 0 0	5 0 0 0.2 0 0.2 0 0	6 0 0 0 0 0.1 0 0	7 0 0 0 0 0 0 0 0	model selected SLD GGG GGL GGL GGL GGL GGL GGL GGL GGL G	1 0 52.4 1.4 2.8 1 2.8 0.6 0.4	2 0 13.4 1.5 0.6 1.6 0.6 0.3	3 0 5 1.8 0.3 2 0.2 0.2	4 0 1.8 1 0.2 1.1 0.3 0.2	5 0 0.7 0.9 0.2 0.6 0	6 0 0.5 0.5 0.1 0.8 0 0.1	7 0 0.4 0.7 0 0.8 0 0	model selected GGG LGL GLL GLL GLL GLL GLL GLL GLL GL	1 0 38.1 1.5 0.4 1.2 0.9 0.1	2 0 15.2 2.4 0.5 2.5 0.8 0.4	3 0 7.3 2.6 0.4 2.1 0.3 0.4	4 0 3.2 2.1 0.2 2.1 0.4 0.1	5 0 1.6 1.5 0.1 1.4 0.2 0.2	6 0 0.8 1.5 0.1 1.2 0 0.1	7 0 1.1 2.3 0 2.5 0 0
	metric used SCV						metric used SCV						metric used SCV							metric used SCV								metric used SCV									
model selected GTT GTC GTC GTC GGG GGG GGG GGG GGG GGG	34.4 0.5 7.1 0.6 6.8 0.7	2 0 17.1 1 2.2 1.2 2.1 1.5	3 4 0 0 7 0.4 0.8 0.1 0.7 0.2 0.6 0.2 0.6 0.1 0.7 0.4 0.3 0	5 0 0 0 0 0 0	6 0 0 0 0 0 0	o model se	GG 23 LG 0. LG 3 GL 0.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3 0 5 11.8 6 1.2 6 1.8 1.3 7 1.4 6 1.8 0.6	1.6 0.2 0.4 0.4 0.3 0.6	5 0 0 0 0.1 0.1 0 0.1	6 0 0 0 0 0 0	7 0 0 0 0 0 0 0 0	model selected LILL LILL LILL LILL LILL LILL LILL LI	1 0 2.5 0.1 0.1 0.1 0.2 0	2 0 23.3 1.4 3.2 1.1 3 2.2 1.3	3 0 22.4 2.8 4.2 2.8 4.8 7.5 2.4	4 0 5.5 1.4 1 1.5 0.9 1.3 0.2	5 0 0.5 0.2 0.2 0.5 0.2 0.4 0.1	6 0 0 0.1 0.1 0.1 0 0.2	7 0 0 0 0 0 0 0 0	GGG model selected GGL GGL GGL GGL GGL GGL GGL GLL GLL GL	0 0.2 0 0 0.1 0 0	2 0 2 0.7 0.1 0.8 0 0	3 0 30.4 5.1 2.5 3.8 2.7 4.7	4 0 17.9 4.1 2.6 3.2 2.5 4.7 0.6	5 0 2.7 1.1 0.5 1.2 0.7 1	6 0 0.4 0.5 0.2 0.4 0.4 0.3	7 0.8 0.1 0.2 0 0 0.1 0.1	model selected GGL GGL LGL GGL LGL GGL LGL LGL GGL LGL GGL LGL GGG LGL GGG	0 0 0 0 0 0 0	0 0.6 0.2 0 0.4 0 0	3 0 18 4.4 1 4.8 0.8 1.8	4 0 26.3 5.8 2.5 5 2 5.2 0.2	5 0 4.4 2.2 1.1 2.6 1.1 1.9	6 0 1 0.9 0.5 1 0.4 0.5	7 1.7 0.2 0.3 0.1 0.3 0.1 0.1
metric used LOOCV							metric used LOOCV								metric used LOOCV						metric used LOOCV							metric used LOOCV									
model selected TTT GGC GT GT GT GGC GGC GGG GGG GGG GG	1 0 54.9 0.6 10.2 0.7 9.5 0.3	2 0 3.1 0.3 0.2 0.4 0.1 0.2	3 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 0 0 0 0 0 0	6 0 0 0 0 0 0	0 model g	GG 56 LG 0. LG 9.	2 0 0 0 0 4.4 8 0.6 4 0.3 7 0.6 7 0.2 3 0.2 0.1	3 0 0.4 0.1 3 0.1 6 0.1 0.1 0.1 0.2	4 0 0 0 0 0 0 0 0.1	5 0 0 0 0 0 0 0	6 0 0 0 0 0 0	7 0 0 0 0 0 0 0 0 0	model selected GLL GLL GLL GLL GLL GLL GLL GLL GLL GL	1 0 55.9 1.1 9.1 1.2 9 0.5 7.1	2 0 6.5 0.8 0.7 1 0.4 0.3	3 0 2 0.7 0.3 0.7 0.3 0.2	4 0 0.3 0.2 0.1 0.2 0.2 0.2	5 0 0.2 0.1 0 0.1 0 0	6 0 0 0.1 0 0 0	7 0.1 0 0 0 0 0 0 0	model selected page gcL GGL GGL GGL GGL GGL GGL GLL GLL GLL G	1 0 51 1.1 3.3 1.2 3.4 0.7	2 0 12.1 2.2 0.8 1.7 1 0.3	3 0 4 1.7 0.6 1.6 0.4 0.3	4 0 1.6 1.1 0.4 1.1 0.6 0.3	5 0 0.6 0.6 0.2 0.5 0.1 0.3	6 0 0.2 0.3 0.1 0.5 0.1 0.1	7 2.4 0.2 0.1 0 0 0 0	model selected LGG LGL GGL GGL GLL GLL GLL GGG LGL GLL GLL GLL GLL GLL GGG LGL GLL GLL GLL GGG LGL GLL GLL GGG LGL GLL GLL GGG GGG LGL GLL GLL GGG GGC GLL GLL	1 0 37.5 1.6 1.1 1.3 1.1 0.2	2 0 13.4 2.6 1 2.2 1.1 0.8 0.2	3 0 6.4 2.6 0.8 2.4 0.5 0.6	4 0 2.5 1.8 0.4 1.3 0.8 0.4	5 0 0.8 1 0.3 1.1 0.5 0.2	6 0 0.5 0.9 0.1 1 0.1 0.2	7 7.7 0.1 0.2 0 0.2 0 0.2 0 0.1 0 0.1
metric used B0RMSE						metric used B0RMSE							metric used B0RMSE							metric used B0RMSE								metric used B0RMSE									
model selected GGL GGL GGL GGL GLL GLL GGG LGL GGG LGL GGG LGL	1 0 47.4 0 11.2 0 12 0 21.6	2 0 1.7 0 1 0 1.2 0 1.2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5 0 0 0 0 0 0 0	6 0 0 0 0 0 0		GG 48 LG 0. LG 10 GL 0 GL 11 LL 0	2 0 0 .4 1 0 .9 1.4 0 0 .1 1.7 0 0 0 .4 1.7	3 0 0.6 0 4 0.9 0 0 0.8 0 0 0.4	4 0 0 0 0.3 0 0.3 0	5 0 0 0 0.2 0 0 0	6 0 0 0 0 0 0	7 0 0 0 0 0 0 0 0	GGG pode selected GGL GGL GGL GLL LLL	1 0 51.1 0.2 9.1 0.2 8.8 0.1	2 0 7.1 0.2 2.1 0.1 1.9 0.1 2	3 0 2.2 0.1 1.1 0.1 1.2 0.2 0.9	4 0 0.8 0 0.3 0 0.8 0.1	5 0 0.1 0 0.3 0 0.2 0.2	6 0 0 0.1 0 0.2 0	7 0.1 0 0.1 0.1 0 0.1 0 0.1	GGG model selected LGL GGL GGL GGL GGL LGL LGL LGL LGL LG	1 0 48 0.9 2.1 1 2.4 1.7	2 0 13.4 0.3 2.2 0.4 2.4 0.5	3 0 6.8 0.2 1.2 0.2 1.2 0.3 1.2	4 0 2.5 0.2 0.8 0.1 0.6 0.5	5 0 0.7 0.1 0.4 0.2 0.4 0.2	6 0 0.1 0.2 0.3 0.4 0.4 0.2	7 1.2 0.2 0.2 0.2 0.3 0.3 0.1 0.5	model selected GGL LGL GGL GGL LGL LGL LGL LGL LGL LG	1 0 35.6 2 0.5 2.1 0.4 2.7	2 0 17.1 0.8 0.8 0.8 0.8 1.5	3 0 9.7 0.7 1.9 0.7 1 0.8 0.5	4 0 3.5 0.4 1 0.3 1 0.6 0.4	5 0 1 0.3 0.6 0.4 0.5 0.7	6 0 0.5 0.5 0.6 0.2 0.5 0.5	7 1.8 0.3 0.2 0.8 0.4 0.9 0.2
metric used B1RMSE							metric used B1RMSE							metric used B1RMSE						metric used B1RMSE								metric used B1RMSE									
model selected GGC GLL GLL GGL GLL GLL GGG	1 0 4.2 0 0.4 1.8 3.2 0	2 0 1.5 0 0.4 0.6 1.2 0	3 4 0 0 0.7 0.4 0 0.2 1.2 2.7 0.4 0.3 0.8 0.5 0.1 1 1.7 2.8	5 0 0.2 1 3.5 0.2 0.2 6.2 4.1	6 0 0.1 6.7 4 5.8 3 0 0.2 20.8 5.7 3		GG 4. LG 0. LG 0. GL 1.	$egin{array}{cccccccccccccccccccccccccccccccccccc$	3 0 0.8 0 4 0.8 0 0.5 6 0.8 0.1 1.3	4 0 0.3 0 2.2 0.3 0.3 1 2.6	5 0 0.2 0.8 3.8 0.2 0.4 5.6 4.2	6 0 0.2 0 7.3 3 6.7 3 0.2 0 20.8 3 6.3 3	7 0.2 0.1 55.2 33.4 0.1 0.1 55.5	GGG LGG GGL GGL GGL GGL GLL GLL	1 0 3.4 0 0 1.7 3.5 0	2 0 1.5 0 0.1 1 1.6 0	3 0 1 0 0.2 0.7 1 0.1 0.2	4 0 0.4 0.2 1.5 0.3 0.5 0.8 1.9	5 0 0.4 1.2 3.2 0.4 0.5 5.1 3.6	6.1 0.3 0.2	7 0.2 0.2 5.5 4 0 0.2 6.8 4.4	GGG LGG LGG GGL GLL GLL GLL GLL LLL LLL	1 0 4.2 0 0 2.9 5.1 0	2 0 1.9 0 0 1.2 2.1 0	3 0 1 0 0 1.1 1.3 0	4 0 0.8 0.1 0.3 0.5 1.3 0.2	5 0 0.6 1.1 1.2 0.4 0.7 3.6 1.3	6 0 0.4 10.2 5.8 0.3 0.3 18.3	7 1.1 0.1 7.8 4.7 0.1 0.2 7.3 5	model selected GGL LGL GLL GLL GLL LLL LLL GGG LLL LLL GLL GLL LLL GGG	1 0 4.4 0 0 4.2 5.9 0	2 0 1.7 0 0 1.6 2.9 0	3 0 1.4 0 0 1.1 2.4 0	4 0 0.8 0 0 0.6 1.4 0	5 0 0.7 0.7 0.5 0.5 1 2	3.6 0.4 0.8	7 1.4 0.3 8.9 5.7 0.2 0.5 9.6
metric used B2RMSE								me	etric	used	B2R	MSE				metr	ric us	sed E	32RN	ISE				metr	ric us	sed B	B2RN	ISE				metr	ic us	ed B	2RM	SE	
model selected CTT CARE CARE CARE CARE CARE CARE CARE CARE	1 0 3.5 1.7 2.5 0 0.5 0	2 0 1.7 0.8 1.8 0 0.5 0	3 4 0 0 0.8 0.5 0.7 0.3 1.2 0.8 0 0.1 1.1 2.4 0.1 1 1.8 3.1	5 0 0.3 0.1 0.2 0.7 3.5 5.9	6 0 0.1 0.1 0.2 7.5 5 6 2 20.2 5 5.3	5.4 Figure 1.5 Figure 1.5	GG 3. LG 1. LG 3.	2 0 0 0 9 1.6 5 0.6 4 1.7 0 0 2 0.3 0 0 2 0.6	3 0 1.1 6 0.6 7 1.1 0 8 0.9 0 1.3	4 0 0.5 0.2 0.6 0 1.9 0.8 2.8	5 0 0.3 0.3 0.3 0.8 3.9 6.2	6 0 0.1 0.1 0.1 7.8 6.1 20.1	7 0 0.1 0 0.1 44.8 3.1 5.9	model gelected GLL GLL GLL GLL GLL GLL GLL GLL GLL GL	1 0 4.5 2.3 3.3 0 0 0	2 0 1.7 0.7 1.5 0 0.1 0	3 0 1.1 0.8 1.5 0 0.2 0	4 0 0.5 0.2 1 0.1 1.3 0.7	5 0 0.2 0.2 0.5 0.7 2.9 5.9 3.5	6.4	7 0.2 0.1 0.1 0.1 5.7 4.3 5.7	m odel model gelected GGL GGL GGL GGL GGL GGL GGL GGL GGL GG	1 0 4.2 3.5 5.5 0 0 0	2 0 1.5 1.2 2.1 0 0 0	3 0 1.2 0.8 1.5 0 0	4 0 0.7 0.5 1.1 0 0.1 0.4	5 0 0.4 0.6 0.4 0.9 1.2 3.4	6 0 0.3 0.3 0.5 10.8 4.9 16.8	7 0.8 0.3 0.3 0.3 8.9 5.3 7.8	model gelected GGL GLL GLL GLL GLL GLL GLL GLL GLL GL	1 0 4.7 4.7 6.3 0 0	2 0 1.8 1.8 2.9 0 0	3 0 1.5 0.9 1.9 0 0	4 0 0.8 0.7 1.4 0.1 0	5 0 0.5 0.6 1.1 1.1 0.2 1.7	3.8	7 1.2 0.5 0.3 0.4 8.9 6.2 9.2